

Released: February 2021  
 Next MECS will be fielded in 2022.

**Table 5.4 End Uses of Fuel Consumption, 2018;**

Level: National Data;  
 Row: End Uses within NAICS Codes;  
 Column: Energy Sources, including Net Demand for Electricity;  
 Unit: Trillion Btu.

NAICS Code(a)	End Use	Net Demand for Electricity(b)	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel(c)	Natural Gas(d)	HGL (excluding natural gasoline)(e)	Coal (excluding Coal Coke and Breeze)
<b>Total United States</b>							
<b>311 - 339</b>	<b>ALL MANUFACTURING INDUSTRIES</b>						
	<b>TOTAL FUEL CONSUMPTION</b>	3,052	17	86	6,362	64	432
	<b>Indirect Uses-Boiler Fuel</b>	45	11	8	2,570	9	189
	Conventional Boiler Use	45	6	3	823	5	14
	CHP and/or Cogeneration Process	--	5	5	1,746	4	175
	<b>Direct Uses-Total Process</b>	2,450	5	35	3,268	D	243
	Process Heating	294	5	13	2,810	22	178
	Process Cooling and Refrigeration	256	*	*	24	*	3
	Machine Drive	1,573	*	14	171	2	15
	Electro-Chemical Processes	250	--	--	--	--	--
	Other Process Use	77	*	8	263	D	46
	<b>Direct Uses-Total Nonprocess</b>	521	1	43	481	D	1
	Facility HVAC (f)	258	*	2	386	D	*
	Facility Lighting	181	--	--	--	--	--
	Other Facility Support	55	0	*	52	*	*
	Onsite Transportation	15	--	33	3	18	--
	Conventional Electricity Generation	--	*	3	28	*	*
	Other Nonprocess Use	13	*	4	12	1	0
	<b>End Use Not Reported</b>	36	*	*	43	3	0
<b>311</b>	<b>FOOD</b>						

<b>TOTAL FUEL CONSUMPTION</b>	324	*	14	669	7	47
<b>Indirect Uses-Boiler Fuel</b>	9	*	2	388	3	37
Conventional Boiler Use	9	*	1	136	2	5
CHP and/or Cogeneration Process	--	*	1	252	1	32
<b>Direct Uses-Total Process</b>	237	*	Q	199	2	10
Process Heating	11	*	Q	167	Q	10
Process Cooling and Refrigeration	85	*	*	4	*	0
Machine Drive	135	*	*	14	*	0
Electro-Chemical Processes	2	--	--	--	--	--
Other Process Use	4	0	Q	14	*	0
<b>Direct Uses-Total Nonprocess</b>	72	*	7	77	2	*
Facility HVAC (f)	34	*	Q	53	1	0
Facility Lighting	28	--	--	--	--	--
Other Facility Support	6	0	*	23	*	0
Onsite Transportation	3	--	2	*	1	--
Conventional Electricity Generation	--	0	2	*	*	*
Other Nonprocess Use	1	0	1	*	*	0
<b>End Use Not Reported</b>	5	0	0	5	*	0

**3112 Grain and Oilseed Milling**

<b>TOTAL FUEL CONSUMPTION</b>	54	*	1	149	*	19
<b>Indirect Uses-Boiler Fuel</b>	2	0	*	99	*	19
Conventional Boiler Use	2	0	*	36	0	5
CHP and/or Cogeneration Process	--	0	*	63	*	14
<b>Direct Uses-Total Process</b>	46	*	*	45	*	0
Process Heating	2	*	*	39	*	0
Process Cooling and Refrigeration	6	0	0	*	*	0
Machine Drive	37	0	*	4	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	1	0	*	3	*	0
<b>Direct Uses-Total Nonprocess</b>	6	*	*	5	*	0
Facility HVAC (f)	2	*	*	4	*	0
Facility Lighting	2	--	--	--	--	--
Other Facility Support	1	0	*	*	*	0
Onsite Transportation	*	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	*	0
Other Nonprocess Use	*	0	*	*	*	0
<b>End Use Not Reported</b>	*	0	0	Q	*	0

**311221 Wet Corn Milling**

<b>TOTAL FUEL CONSUMPTION</b>	22	0	*	61	*	10
<b>Indirect Uses-Boiler Fuel</b>	1	0	0	44	0	10
Conventional Boiler Use	1	0	0	8	0	1
CHP and/or Cogeneration Process	--	0	0	36	0	9
<b>Direct Uses-Total Process</b>	20	0	*	17	*	0
Process Heating	*	0	0	16	*	0
Process Cooling and Refrigeration	4	0	0	*	0	0
Machine Drive	16	0	*	0	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	0	0	*	*	0	0
<b>Direct Uses-Total Nonprocess</b>	1	0	*	1	*	0
Facility HVAC (f)	1	0	*	*	*	0
Facility Lighting	*	--	--	--	--	--
Other Facility Support	*	0	*	*	*	0
Onsite Transportation	*	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	0	0
Other Nonprocess Use	0	0	*	0	*	0
<b>End Use Not Reported</b>	0	0	0	0	0	0

**31131 Sugar**

<b>TOTAL FUEL CONSUMPTION</b>	7	*	*	33	*	29
<b>Indirect Uses-Boiler Fuel</b>	1	*	*	25	0	18
Conventional Boiler Use	1	*	*	4	0	*
CHP and/or Cogeneration Process	--	*	*	20	0	18
<b>Direct Uses-Total Process</b>	5	0	*	8	*	10
Process Heating	*	0	0	8	0	10
Process Cooling and Refrigeration	*	0	0	*	0	0
Machine Drive	4	0	*	*	0	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	*	0	*	*	*	0
<b>Direct Uses-Total Nonprocess</b>	1	0	*	*	*	*
Facility HVAC (f)	*	0	0	*	*	0
Facility Lighting	*	--	--	--	--	--
Other Facility Support	*	0	*	*	*	0
Onsite Transportation	*	--	*	*	*	--
Conventional Electricity Generation	--	0	*	0	0	*

Other Nonprocess Use	*	0	*	0	0	0
<b>End Use Not Reported</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**3114 Fruit and Vegetable Preserving and Specialty Foods**

<b>TOTAL FUEL CONSUMPTION</b>	<b>36</b>	<b>*</b>	<b>*</b>	<b>92</b>	<b>1</b>	<b>0</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>1</b>	<b>0</b>	<b>*</b>	<b>59</b>	<b>1</b>	<b>0</b>
Conventional Boiler Use	1	0	0	18	*	0
CHP and/or Cogeneration Process	--	0	*	41	*	0
<b>Direct Uses-Total Process</b>	<b>27</b>	<b>*</b>	<b>*</b>	<b>24</b>	<b>*</b>	<b>0</b>
Process Heating	1	*	*	22	*	0
Process Cooling and Refrigeration	14	0	*	1	*	0
Machine Drive	12	0	*	1	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	1	0	*	*	*	0
<b>Direct Uses-Total Nonprocess</b>	<b>7</b>	<b>*</b>	<b>*</b>	<b>8</b>	<b>*</b>	<b>0</b>
Facility HVAC (f)	3	*	*	6	*	0
Facility Lighting	3	--	--	--	--	--
Other Facility Support	1	0	*	2	*	0
Onsite Transportation	*	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	*	0
Other Nonprocess Use	*	0	*	*	*	0
<b>End Use Not Reported</b>	<b>*</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>*</b>	<b>0</b>

**3115 Dairy Products**

<b>TOTAL FUEL CONSUMPTION</b>	<b>39</b>	<b>*</b>	<b>1</b>	<b>79</b>	<b>2</b>	<b>0</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>1</b>	<b>*</b>	<b>*</b>	<b>47</b>	<b>1</b>	<b>0</b>
Conventional Boiler Use	1	*	*	21	*	0
CHP and/or Cogeneration Process	--	0	*	26	*	0
<b>Direct Uses-Total Process</b>	<b>30</b>	<b>*</b>	<b>*</b>	<b>25</b>	<b>1</b>	<b>0</b>
Process Heating	2	0	*	22	*	0
Process Cooling and Refrigeration	12	*	*	1	*	0
Machine Drive	14	*	*	1	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	*	0	*	1	0	0
<b>Direct Uses-Total Nonprocess</b>	<b>8</b>	<b>*</b>	<b>*</b>	<b>5</b>	<b>*</b>	<b>0</b>
Facility HVAC (f)	4	*	*	4	*	0
Facility Lighting	3	--	--	--	--	--

Other Facility Support	1	0	*	1	*	0
Onsite Transportation	1	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	0	0
Other Nonprocess Use	*	0	*	*	*	0
<b>End Use Not Reported</b>	1	0	0	1	*	0

**3116 Animal Slaughtering and Processing**

<b>TOTAL FUEL CONSUMPTION</b>	108	*	3	149	2	0
<b>Indirect Uses-Boiler Fuel</b>	2	*	1	89	1	0
Conventional Boiler Use	2	*	*	38	1	0
CHP and/or Cogeneration Process	--	0	*	51	*	0
<b>Direct Uses-Total Process</b>	74	0	Q	33	*	0
<b>Process Heating</b>	2	0	*	25	*	0
Process Cooling and Refrigeration	40	0	*	2	*	0
Machine Drive	31	0	*	2	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	1	0	*	4	*	0
<b>Direct Uses-Total Nonprocess</b>	Q	0	2	26	*	0
<b>Facility HVAC (f)</b>	Q	0	*	13	*	0
Facility Lighting	Q	--	--	--	--	--
Other Facility Support	2	0	*	13	*	0
Onsite Transportation	1	--	1	*	*	--
Conventional Electricity Generation	--	0	*	*	*	0
Other Nonprocess Use	*	0	*	*	*	0
<b>End Use Not Reported</b>	*	0	0	1	*	0

**312 BEVERAGE AND TOBACCO PRODUCTS**

<b>TOTAL FUEL CONSUMPTION</b>	49	*	*	54	1	*
<b>Indirect Uses-Boiler Fuel</b>	1	*	*	35	*	*
Conventional Boiler Use	1	*	*	18	*	*
CHP and/or Cogeneration Process	--	*	*	17	*	*
<b>Direct Uses-Total Process</b>	37	0	*	14	*	*
Process Heating	1	0	*	12	*	*
Process Cooling and Refrigeration	10	0	*	*	*	0
Machine Drive	25	0	*	1	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	1	0	*	1	*	0

<b>Direct Uses-Total Nonprocess</b>	11	*	*	6	1	*
Facility HVAC (f)	5	0	*	4	*	*
Facility Lighting	4	--	--	--	--	--
Other Facility Support	1	0	0	1	*	0
Onsite Transportation	1	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	*	0
Other Nonprocess Use	*	*	*	*	*	0
<b>End Use Not Reported</b>	*	0	0	*	*	0

**3121 Beverages**

<b>TOTAL FUEL CONSUMPTION</b>	47	*	*	50	1	*
<b>Indirect Uses-Boiler Fuel</b>	1	*	*	32	*	*
Conventional Boiler Use	1	0	*	16	*	*
CHP and/or Cogeneration Process	--	*	*	16	*	*
<b>Direct Uses-Total Process</b>	36	0	*	13	*	*
Process Heating	1	0	*	11	*	*
Process Cooling and Refrigeration	9	0	*	*	*	0
Machine Drive	23	0	*	1	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	1	0	*	1	*	0
<b>Direct Uses-Total Nonprocess</b>	10	*	*	5	1	*
Facility HVAC (f)	5	0	*	4	*	*
Facility Lighting	3	--	--	--	--	--
Other Facility Support	1	0	0	1	*	0
Onsite Transportation	1	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	*	0
Other Nonprocess Use	*	*	*	*	*	0
<b>End Use Not Reported</b>	*	0	0	*	*	0

**3122 Tobacco**

<b>TOTAL FUEL CONSUMPTION</b>	3	*	*	4	*	0
<b>Indirect Uses-Boiler Fuel</b>	*	*	*	3	*	0
Conventional Boiler Use	*	*	*	2	*	0
CHP and/or Cogeneration Process	--	0	*	1	*	0
<b>Direct Uses-Total Process</b>	2	0	*	1	*	0
Process Heating	*	0	0	*	*	0
Process Cooling and Refrigeration	*	0	0	0	0	0

Machine Drive	1	0	*	*	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	*	0	0	*	0	0
<b>Direct Uses-Total Nonprocess</b>	<b>1</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>*</b>	<b>0</b>
Facility HVAC (f)	1	0	*	*	*	0
Facility Lighting	*	--	--	--	--	--
Other Facility Support	*	0	0	*	*	0
Onsite Transportation	*	--	*	*	*	--
Conventional Electricity Generation	--	0	*	0	0	0
Other Nonprocess Use	*	0	*	*	*	0
<b>End Use Not Reported</b>	<b>*</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**313 TEXTILE MILLS**

<b>TOTAL FUEL CONSUMPTION</b>	<b>37</b>	<b>*</b>	<b>*</b>	<b>23</b>	<b>1</b>	<b>1</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>1</b>	<b>*</b>	<b>*</b>	<b>11</b>	<b>1</b>	<b>1</b>
Conventional Boiler Use	1	*	*	7	*	1
CHP and/or Cogeneration Process	--	*	*	5	*	1
<b>Direct Uses-Total Process</b>	<b>27</b>	<b>0</b>	<b>*</b>	<b>9</b>	<b>*</b>	<b>0</b>
Process Heating	3	0	*	9	*	0
Process Cooling and Refrigeration	2	0	0	*	0	0
Machine Drive	21	0	*	1	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	1	0	0	*	*	0
<b>Direct Uses-Total Nonprocess</b>	<b>10</b>	<b>0</b>	<b>*</b>	<b>2</b>	<b>*</b>	<b>0</b>
Facility HVAC (f)	6	0	*	2	*	0
Facility Lighting	2	--	--	--	--	--
Other Facility Support	1	0	*	*	*	0
Onsite Transportation	*	--	*	*	*	--
Conventional Electricity Generation	--	0	0	*	0	0
Other Nonprocess Use	*	0	*	0	*	0
<b>End Use Not Reported</b>	<b>*</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>0</b>

**314 TEXTILE PRODUCT MILLS**

<b>TOTAL FUEL CONSUMPTION</b>	<b>10</b>	<b>0</b>	<b>*</b>	<b>11</b>	<b>*</b>	<b>*</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>*</b>	<b>0</b>	<b>*</b>	<b>4</b>	<b>*</b>	<b>0</b>
Conventional Boiler Use	*	0	*	4	*	0
CHP and/or Cogeneration Process	--	0	*	*	0	0

<b>Direct Uses-Total Process</b>	7	0	*	6	*	*
Process Heating	1	0	*	5	*	*
Process Cooling and Refrigeration	*	0	0	0	0	0
Machine Drive	6	0	0	Q	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	*	0	*	0	0	0
<b>Direct Uses-Total Nonprocess</b>	2	0	*	1	*	0
Facility HVAC (f)	1	0	*	1	*	0
Facility Lighting	1	--	--	--	--	--
Other Facility Support	*	0	*	*	0	0
Onsite Transportation	*	--	*	0	*	--
Conventional Electricity Generation	--	0	0	0	0	0
Other Nonprocess Use	*	0	0	0	0	0
<b>End Use Not Reported</b>	*	0	0	*	*	0

**315 APPAREL**

<b>TOTAL FUEL CONSUMPTION</b>	2	0	*	2	*	*
<b>Indirect Uses-Boiler Fuel</b>	*	0	0	1	*	0
Conventional Boiler Use	*	0	0	*	*	0
CHP and/or Cogeneration Process	--	0	0	*	*	0
<b>Direct Uses-Total Process</b>	1	0	*	1	*	0
Process Heating	*	0	0	*	*	0
Process Cooling and Refrigeration	*	0	0	*	0	0
Machine Drive	1	0	0	*	0	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	*	0	*	0	0	0
<b>Direct Uses-Total Nonprocess</b>	1	0	0	*	*	*
Facility HVAC (f)	1	0	0	*	*	*
Facility Lighting	*	--	--	--	--	--
Other Facility Support	*	0	0	*	0	0
Onsite Transportation	*	--	0	0	*	--
Conventional Electricity Generation	--	0	0	0	0	0
Other Nonprocess Use	*	0	0	*	*	0
<b>End Use Not Reported</b>	*	0	0	*	*	0

**316 LEATHER AND ALLIED PRODUCTS**

<b>TOTAL FUEL CONSUMPTION</b>	1	0	*	1	*	0
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<b>Indirect Uses-Boiler Fuel</b>	*	0	*	*	*	0
Conventional Boiler Use	*	0	*	*	0	0
CHP and/or Cogeneration Process	--	0	*	*	*	0
<b>Direct Uses-Total Process</b>	*	0	0	*	*	0
Process Heating	*	0	0	*	*	0
Process Cooling and Refrigeration	*	0	0	*	0	0
Machine Drive	*	0	0	*	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	*	0	0	*	0	0
<b>Direct Uses-Total Nonprocess</b>	*	0	*	*	*	0
Facility HVAC (f)	*	0	*	*	*	0
Facility Lighting	*	--	--	--	--	--
Other Facility Support	*	0	0	*	*	0
Onsite Transportation	*	--	*	0	*	--
Conventional Electricity Generation	--	0	*	0	0	0
Other Nonprocess Use	*	0	*	*	0	0
<b>End Use Not Reported</b>	*	0	0	*	*	0

**321 WOOD PRODUCTS**

<b>TOTAL FUEL CONSUMPTION</b>	77	*	11	67	4	*
<b>Indirect Uses-Boiler Fuel</b>	2	*	*	19	*	*
Conventional Boiler Use	2	0	*	4	*	0
CHP and/or Cogeneration Process	--	*	*	15	*	*
<b>Direct Uses-Total Process</b>	63	*	Q	40	1	*
Process Heating	4	*	*	34	*	*
Process Cooling and Refrigeration	1	0	*	*	*	0
Machine Drive	58	*	1	2	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	*	0	Q	4	*	0
<b>Direct Uses-Total Nonprocess</b>	12	*	6	8	3	*
Facility HVAC (f)	5	*	*	6	*	*
Facility Lighting	5	--	--	--	--	--
Other Facility Support	2	0	*	*	*	0
Onsite Transportation	*	--	6	*	3	--
Conventional Electricity Generation	--	0	*	*	*	0
Other Nonprocess Use	*	0	*	1	*	0
<b>End Use Not Reported</b>	1	0	0	*	*	0

**321113 Sawmills**

<b>TOTAL FUEL CONSUMPTION</b>	30	*	5	18	*	0
<b>Indirect Uses-Boiler Fuel</b>	1	*	*	6	*	0
Conventional Boiler Use	1	0	*	1	*	0
CHP and/or Cogeneration Process	--	*	*	5	*	0
<b>Direct Uses-Total Process</b>	25	0	1	Q	*	0
Process Heating	1	0	*	Q	*	0
Process Cooling and Refrigeration	*	0	*	*	0	0
Machine Drive	24	0	1	*	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	*	0	*	0	*	0
<b>Direct Uses-Total Nonprocess</b>	3	*	4	1	*	0
Facility HVAC (f)	1	*	*	1	*	0
Facility Lighting	2	--	--	--	--	--
Other Facility Support	1	0	*	*	*	0
Onsite Transportation	*	--	4	*	*	--
Conventional Electricity Generation	--	0	*	*	*	0
Other Nonprocess Use	*	0	*	0	*	0
<b>End Use Not Reported</b>	*	0	0	*	*	0

**3212 Veneer, Plywood, and Engineered Woods**

<b>TOTAL FUEL CONSUMPTION</b>	24	*	1	32	1	*
<b>Indirect Uses-Boiler Fuel</b>	*	0	*	9	*	*
Conventional Boiler Use	*	0	*	3	*	0
CHP and/or Cogeneration Process	--	0	*	7	*	*
<b>Direct Uses-Total Process</b>	20	*	*	20	*	0
Process Heating	1	*	*	15	*	0
Process Cooling and Refrigeration	*	0	0	*	0	0
Machine Drive	19	*	*	1	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	*	0	*	4	*	0
<b>Direct Uses-Total Nonprocess</b>	3	0	1	2	1	0
Facility HVAC (f)	1	0	*	1	*	0
Facility Lighting	1	--	--	--	--	--
Other Facility Support	*	0	*	*	*	0
Onsite Transportation	*	--	1	*	1	--
Conventional Electricity Generation	--	0	*	*	*	0
Other Nonprocess Use	*	0	*	1	*	0

<b>End Use Not Reported</b>	*	0	0	*	*	0
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**321219 Reconstituted Wood Products**

<b>TOTAL FUEL CONSUMPTION</b>	15	*	*	20	*	0
<b>Indirect Uses-Boiler Fuel</b>	*	0	*	5	*	0
Conventional Boiler Use	*	0	*	2	*	0
CHP and/or Cogeneration Process	--	0	0	3	*	0
<b>Direct Uses-Total Process</b>	13	*	*	14	*	0
Process Heating	*	*	*	10	*	0
Process Cooling and Refrigeration	*	0	0	0	0	0
Machine Drive	13	*	*	1	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	*	0	0	4	0	0
<b>Direct Uses-Total Nonprocess</b>	2	0	*	1	*	0
Facility HVAC (f)	1	0	*	*	*	0
Facility Lighting	1	--	--	--	--	--
Other Facility Support	*	0	*	*	*	0
Onsite Transportation	*	--	*	0	*	--
Conventional Electricity Generation	--	0	*	*	0	0
Other Nonprocess Use	*	0	0	1	*	0
<b>End Use Not Reported</b>	0	0	0	0	0	0

**3219 Other Wood Products**

<b>TOTAL FUEL CONSUMPTION</b>	22	*	Q	15	1	*
<b>Indirect Uses-Boiler Fuel</b>	1	0	*	2	*	0
Conventional Boiler Use	1	0	*	1	*	0
CHP and/or Cogeneration Process	--	0	*	2	*	0
<b>Direct Uses-Total Process</b>	16	0	Q	8	*	*
Process Heating	2	0	*	7	*	*
Process Cooling and Refrigeration	*	0	*	*	*	0
Machine Drive	14	0	*	Q	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	*	0	Q	*	*	0
<b>Direct Uses-Total Nonprocess</b>	5	*	1	5	1	*
Facility HVAC (f)	3	*	*	4	*	*
Facility Lighting	2	--	--	--	--	--
Other Facility Support	1	0	0	*	*	0

Onsite Transportation	*	--	1	*	1	--
Conventional Electricity Generation	--	0	*	*	0	0
Other Nonprocess Use	*	0	*	*	*	0
<b>End Use Not Reported</b>	*	0	0	*	*	0

**322 PAPER**

<b>TOTAL FUEL CONSUMPTION</b>	311	9	4	572	3	54
<b>Indirect Uses-Boiler Fuel</b>	13	7	2	386	*	52
Conventional Boiler Use	13	1	*	65	*	1
CHP and/or Cogeneration Process	--	5	2	321	*	51
<b>Direct Uses-Total Process</b>	260	2	*	158	*	1
Process Heating	11	2	*	143	*	0
Process Cooling and Refrigeration	9	0	0	*	*	0
Machine Drive	236	0	*	7	*	1
Electro-Chemical Processes	3	--	--	--	--	--
Other Process Use	2	0	*	7	*	*
<b>Direct Uses-Total Nonprocess</b>	36	*	2	27	2	0
Facility HVAC (f)	16	*	*	18	*	0
Facility Lighting	14	--	--	--	--	--
Other Facility Support	5	0	*	2	*	0
Onsite Transportation	1	--	2	*	2	--
Conventional Electricity Generation	--	*	*	6	*	0
Other Nonprocess Use	*	0	*	*	*	0
<b>End Use Not Reported</b>	Q	*	*	Q	*	0

**322110 Pulp Mills**

<b>TOTAL FUEL CONSUMPTION</b>	27	3	1	40	*	*
<b>Indirect Uses-Boiler Fuel</b>	2	2	*	21	*	*
Conventional Boiler Use	2	0	*	1	0	0
CHP and/or Cogeneration Process	--	2	*	21	*	*
<b>Direct Uses-Total Process</b>	23	*	*	18	0	0
Process Heating	1	*	*	18	0	0
Process Cooling and Refrigeration	1	0	0	0	0	0
Machine Drive	21	0	*	*	0	0
Electro-Chemical Processes	1	--	--	--	--	--
Other Process Use	*	0	0	0	0	0
<b>Direct Uses-Total Nonprocess</b>	3	*	*	1	*	0

Facility HVAC (f)	1	0	0	*	*	0
Facility Lighting	1	--	--	--	--	--
Other Facility Support	*	0	0	*	0	0
Onsite Transportation	*	--	*	0	*	--
Conventional Electricity Generation	--	*	*	1	0	0
Other Nonprocess Use	0	0	0	0	0	0
<b>End Use Not Reported</b>	0	0	*	0	0	0

**322121 Paper Mills, except Newsprint**

<b>TOTAL FUEL CONSUMPTION</b>	106	3	2	224	1	39
<b>Indirect Uses-Boiler Fuel</b>	5	3	1	154	*	37
Conventional Boiler Use	5	1	*	25	*	*
CHP and/or Cogeneration Process	--	1	1	129	*	37
<b>Direct Uses-Total Process</b>	89	1	*	64	*	1
Process Heating	4	1	*	56	*	0
Process Cooling and Refrigeration	3	0	0	0	0	0
Machine Drive	80	0	*	2	*	1
Electro-Chemical Processes	1	--	--	--	--	--
Other Process Use	*	0	*	6	0	*
<b>Direct Uses-Total Nonprocess</b>	12	*	1	7	*	0
Facility HVAC (f)	5	*	*	3	*	0
Facility Lighting	5	--	--	--	--	--
Other Facility Support	2	0	*	1	*	0
Onsite Transportation	*	--	1	*	*	--
Conventional Electricity Generation	--	0	*	3	0	0
Other Nonprocess Use	0	0	*	0	*	0
<b>End Use Not Reported</b>	0	0	*	0	*	0

**322122 Newsprint Mills**

<b>TOTAL FUEL CONSUMPTION</b>	18	0	*	5	*	0
<b>Indirect Uses-Boiler Fuel</b>	2	0	*	3	*	0
Conventional Boiler Use	2	0	0	3	*	0
CHP and/or Cogeneration Process	--	0	*	*	0	0
<b>Direct Uses-Total Process</b>	16	0	0	2	0	0
Process Heating	*	0	0	2	0	0
Process Cooling and Refrigeration	*	0	0	0	0	0
Machine Drive	15	0	0	0	0	0

Electro-Chemical Processes	0	--	--	--	--	--
Other Process Use	0	0	0	0	0	0
<b>Direct Uses-Total Nonprocess</b>	<b>1</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>*</b>	<b>0</b>
Facility HVAC (f)	*	0	0	*	0	0
Facility Lighting	*	--	--	--	--	--
Other Facility Support	0	0	0	*	0	0
Onsite Transportation	0	--	*	0	*	--
Conventional Electricity Generation	--	0	0	0	0	0
Other Nonprocess Use	0	0	0	0	0	0
<b>End Use Not Reported</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**322130 Paperboard Mills**

<b>TOTAL FUEL CONSUMPTION</b>	<b>115</b>	<b>3</b>	<b>2</b>	<b>235</b>	<b>*</b>	<b>13</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>5</b>	<b>2</b>	<b>1</b>	<b>175</b>	<b>*</b>	<b>13</b>
Conventional Boiler Use	5	*	*	25	0	1
CHP and/or Cogeneration Process	--	2	1	150	*	13
<b>Direct Uses-Total Process</b>	<b>99</b>	<b>1</b>	<b>*</b>	<b>51</b>	<b>*</b>	<b>0</b>
Process Heating	4	1	*	48	*	0
Process Cooling and Refrigeration	2	0	0	*	0	0
Machine Drive	92	0	*	2	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	1	0	*	1	*	0
<b>Direct Uses-Total Nonprocess</b>	<b>11</b>	<b>0</b>	<b>1</b>	<b>9</b>	<b>*</b>	<b>0</b>
Facility HVAC (f)	5	0	*	5	*	0
Facility Lighting	5	--	--	--	--	--
Other Facility Support	1	0	0	1	*	0
Onsite Transportation	*	--	1	*	*	--
Conventional Electricity Generation	--	0	0	2	0	0
Other Nonprocess Use	*	0	*	0	*	0
<b>End Use Not Reported</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>0</b>	<b>*</b>	<b>0</b>

**323 PRINTING AND RELATED SUPPORT**

<b>TOTAL FUEL CONSUMPTION</b>	<b>34</b>	<b>*</b>	<b>*</b>	<b>24</b>	<b>1</b>	<b>0</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>*</b>	<b>0</b>	<b>*</b>	<b>3</b>	<b>*</b>	<b>0</b>
Conventional Boiler Use	*	0	*	3	*	0
CHP and/or Cogeneration Process	--	0	0	0	0	0
<b>Direct Uses-Total Process</b>	<b>23</b>	<b>*</b>	<b>*</b>	<b>12</b>	<b>*</b>	<b>0</b>

Process Heating	1	0	*	8	*	0
Process Cooling and Refrigeration	2	0	0	*	0	0
Machine Drive	19	0	*	2	*	0
Electro-Chemical Processes	Q	--	--	--	--	--
Other Process Use	1	*	0	Q	0	0
<b>Direct Uses-Total Nonprocess</b>	<b>10</b>	<b>*</b>	<b>*</b>	<b>9</b>	<b>*</b>	<b>0</b>
Facility HVAC (f)	6	*	*	8	*	0
Facility Lighting	3	--	--	--	--	--
Other Facility Support	1	0	*	*	*	0
Onsite Transportation	*	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	0	0
Other Nonprocess Use	*	0	*	*	*	0
<b>End Use Not Reported</b>	<b>*</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>*</b>	<b>0</b>

**324 PETROLEUM AND COAL PRODUCTS**

<b>TOTAL FUEL CONSUMPTION</b>	<b>245</b>	<b>3</b>	<b>14</b>	<b>1,077</b>	<b>19</b>	<b>*</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>2</b>	<b>*</b>	<b>1</b>	<b>342</b>	<b>2</b>	<b>0</b>
Conventional Boiler Use	2	*	*	134	2	0
CHP and/or Cogeneration Process	--	0	*	208	1	0
<b>Direct Uses-Total Process</b>	<b>226</b>	<b>3</b>	<b>8</b>	<b>696</b>	<b>16</b>	<b>*</b>
Process Heating	9	3	4	656	15	*
Process Cooling and Refrigeration	11	0	*	1	*	0
Machine Drive	201	0	4	15	Q	0
Electro-Chemical Processes	4	--	--	--	--	--
Other Process Use	2	0	*	24	*	0
<b>Direct Uses-Total Nonprocess</b>	<b>17</b>	<b>0</b>	<b>5</b>	<b>29</b>	<b>1</b>	<b>0</b>
Facility HVAC (f)	8	0	*	7	*	0
Facility Lighting	6	--	--	--	--	--
Other Facility Support	3	0	*	1	*	0
Onsite Transportation	*	--	4	*	*	--
Conventional Electricity Generation	--	0	*	20	*	0
Other Nonprocess Use	*	0	1	1	*	0
<b>End Use Not Reported</b>	<b>*</b>	<b>0</b>	<b>*</b>	<b>10</b>	<b>*</b>	<b>0</b>

**324110 Petroleum Refineries**

<b>TOTAL FUEL CONSUMPTION</b>	<b>230</b>	<b>2</b>	<b>5</b>	<b>994</b>	<b>16</b>	<b>0</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>1</b>	<b>*</b>	<b>*</b>	<b>323</b>	<b>2</b>	<b>0</b>

Conventional Boiler Use	1	*	*	129	2	0
CHP and/or Cogeneration Process	--	0	*	194	1	0
<b>Direct Uses-Total Process</b>	<b>214</b>	<b>2</b>	<b>3</b>	<b>636</b>	<b>13</b>	<b>0</b>
Process Heating	8	2	2	604	13	0
Process Cooling and Refrigeration	10	0	0	*	*	0
Machine Drive	191	0	1	10	*	0
Electro-Chemical Processes	4	--	--	--	--	--
Other Process Use	1	0	*	22	*	0
<b>Direct Uses-Total Nonprocess</b>	<b>14</b>	<b>0</b>	<b>2</b>	<b>25</b>	<b>*</b>	<b>0</b>
Facility HVAC (f)	7	0	*	5	*	0
Facility Lighting	5	--	--	--	--	--
Other Facility Support	2	0	0	*	*	0
Onsite Transportation	*	--	2	0	*	--
Conventional Electricity Generation	--	0	*	20	*	0
Other Nonprocess Use	*	0	*	*	*	0
<b>End Use Not Reported</b>	<b>*</b>	<b>0</b>	<b>*</b>	<b>10</b>	<b>*</b>	<b>0</b>

**324121 Asphalt Paving Mixture and Block**

<b>TOTAL FUEL CONSUMPTION</b>	<b>5</b>	<b>1</b>	<b>8</b>	<b>41</b>	<b>3</b>	<b>*</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>*</b>	<b>0</b>	<b>*</b>	<b>4</b>	<b>*</b>	<b>0</b>
Conventional Boiler Use	*	0	*	1	*	0
CHP and/or Cogeneration Process	--	0	*	3	*	0
<b>Direct Uses-Total Process</b>	<b>4</b>	<b>1</b>	<b>6</b>	<b>36</b>	<b>3</b>	<b>*</b>
Process Heating	*	1	2	31	2	*
Process Cooling and Refrigeration	*	0	*	*	0	0
Machine Drive	3	0	3	4	Q	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	*	0	*	1	*	0
<b>Direct Uses-Total Nonprocess</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>*</b>	<b>0</b>
Facility HVAC (f)	*	0	*	1	*	0
Facility Lighting	*	--	--	--	--	--
Other Facility Support	*	0	*	*	*	0
Onsite Transportation	*	--	2	*	*	--
Conventional Electricity Generation	--	0	*	0	0	0
Other Nonprocess Use	*	0	Q	*	*	0
<b>End Use Not Reported</b>	<b>*</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>0</b>

**324122 Asphalt Shingle and Coating Materials**



<b>TOTAL FUEL CONSUMPTION</b>	3	0	*	14	*	0
<b>Indirect Uses-Boiler Fuel</b>	*	0	*	3	*	0
Conventional Boiler Use	*	0	*	1	*	0
CHP and/or Cogeneration Process	--	0	*	2	*	0
<b>Direct Uses-Total Process</b>	2	0	*	10	*	0
Process Heating	*	0	*	8	*	0
Process Cooling and Refrigeration	*	0	0	*	*	0
Machine Drive	2	0	*	1	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	*	0	*	*	*	0
<b>Direct Uses-Total Nonprocess</b>	1	0	*	1	*	0
Facility HVAC (f)	*	0	*	1	*	0
Facility Lighting	*	--	--	--	--	--
Other Facility Support	*	0	*	*	*	0
Onsite Transportation	*	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	0	0
Other Nonprocess Use	*	0	*	*	*	0
<b>End Use Not Reported</b>	*	0	0	0	*	0

**324191 Petroleum Lubricating Oil and Grease Products**

<b>TOTAL FUEL CONSUMPTION</b>	5	0	*	19	*	0
<b>Indirect Uses-Boiler Fuel</b>	*	0	*	10	*	0
Conventional Boiler Use	*	0	*	2	0	0
CHP and/or Cogeneration Process	--	0	*	9	*	0
<b>Direct Uses-Total Process</b>	4	0	*	8	*	0
Process Heating	*	0	*	7	*	0
Process Cooling and Refrigeration	*	0	0	*	*	0
Machine Drive	3	0	*	*	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	*	0	*	*	*	0
<b>Direct Uses-Total Nonprocess</b>	1	0	*	1	*	0
Facility HVAC (f)	*	0	*	1	*	0
Facility Lighting	*	--	--	--	--	--
Other Facility Support	*	0	*	*	*	0
Onsite Transportation	*	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	0	0
Other Nonprocess Use	*	0	*	*	*	0
<b>End Use Not Reported</b>	*	0	*	0	*	0

**324199 Other Petroleum and Coal Products**

<b>TOTAL FUEL CONSUMPTION</b>	3	0	*	8	*	0
<b>Indirect Uses-Boiler Fuel</b>	*	0	*	1	0	0
Conventional Boiler Use	*	0	*	1	0	0
CHP and/or Cogeneration Process	--	0	0	*	0	0
<b>Direct Uses-Total Process</b>	2	0	*	6	*	0
Process Heating	*	0	*	5	*	0
Process Cooling and Refrigeration	*	0	0	0	0	0
Machine Drive	2	0	*	*	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	*	0	*	1	0	0
<b>Direct Uses-Total Nonprocess</b>	*	0	*	*	*	0
Facility HVAC (f)	*	0	0	*	*	0
Facility Lighting	*	--	--	--	--	--
Other Facility Support	*	0	*	*	*	0
Onsite Transportation	*	--	*	*	*	--
Conventional Electricity Generation	--	0	*	0	*	0
Other Nonprocess Use	*	0	*	*	0	0
<b>End Use Not Reported</b>	*	0	0	0	*	0

**325 CHEMICALS**

<b>TOTAL FUEL CONSUMPTION</b>	708	3	6	2,344	7	113
<b>Indirect Uses-Boiler Fuel</b>	8	2	2	1,203	1	98
Conventional Boiler Use	8	2	1	389	*	7
CHP and/or Cogeneration Process	--	*	1	813	1	91
<b>Direct Uses-Total Process</b>	613	*	1	1,054	D	15
Process Heating	22	*	*	797	1	7
Process Cooling and Refrigeration	68	0	*	9	*	0
Machine Drive	373	0	*	89	*	0
Electro-Chemical Processes	135	--	--	--	--	--
Other Process Use	15	0	*	160	D	8
<b>Direct Uses-Total Nonprocess</b>	76	0	3	71	D	*
Facility HVAC (f)	39	0	*	57	D	*
Facility Lighting	25	--	--	--	--	--
Other Facility Support	9	0	*	11	*	0
Onsite Transportation	1	--	2	*	2	--

Conventional Electricity Generation	--	0	*	1	*	0
Other Nonprocess Use	2	0	*	3	*	0
<b>End Use Not Reported</b>	<b>10</b>	<b>*</b>	<b>*</b>	<b>16</b>	<b>1</b>	<b>0</b>

**325110 Petrochemicals**

<b>TOTAL FUEL CONSUMPTION</b>	<b>37</b>	<b>0</b>	<b>1</b>	<b>304</b>	<b>1</b>	<b>0</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>1</b>	<b>0</b>	<b>*</b>	<b>125</b>	<b>*</b>	<b>0</b>
Conventional Boiler Use	1	0	*	36	*	0
CHP and/or Cogeneration Process	--	0	*	89	*	0
<b>Direct Uses-Total Process</b>	<b>35</b>	<b>0</b>	<b>*</b>	<b>178</b>	<b>*</b>	<b>0</b>
Process Heating	1	0	0	145	*	0
Process Cooling and Refrigeration	8	0	0	4	*	0
Machine Drive	26	0	*	D	0	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	*	0	*	D	*	0
<b>Direct Uses-Total Nonprocess</b>	<b>2</b>	<b>0</b>	<b>*</b>	<b>1</b>	<b>*</b>	<b>0</b>
Facility HVAC (f)	1	0	*	1	*	0
Facility Lighting	1	--	--	--	--	--
Other Facility Support	*	0	0	*	*	0
Onsite Transportation	*	--	*	0	*	--
Conventional Electricity Generation	--	0	*	*	0	0
Other Nonprocess Use	*	0	*	1	0	0
<b>End Use Not Reported</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>0</b>

**325120 Industrial Gases**

<b>TOTAL FUEL CONSUMPTION</b>	<b>86</b>	<b>0</b>	<b>*</b>	<b>83</b>	<b>*</b>	<b>0</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>*</b>	<b>0</b>	<b>*</b>	<b>64</b>	<b>0</b>	<b>0</b>
Conventional Boiler Use	*	0	*	9	0	0
CHP and/or Cogeneration Process	--	0	0	55	0	0
<b>Direct Uses-Total Process</b>	<b>83</b>	<b>0</b>	<b>*</b>	<b>19</b>	<b>*</b>	<b>0</b>
Process Heating	*	0	0	5	0	0
Process Cooling and Refrigeration	2	0	0	*	*	0
Machine Drive	72	0	*	0	0	0
Electro-Chemical Processes	3	--	--	--	--	--
Other Process Use	5	0	0	14	0	0
<b>Direct Uses-Total Nonprocess</b>	<b>3</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>*</b>	<b>0</b>
Facility HVAC (f)	2	0	0	*	*	0

Facility Lighting	1	--	--	--	--	--
Other Facility Support	*	0	0	*	0	0
Onsite Transportation	*	--	*	0	*	--
Conventional Electricity Generation	--	0	0	0	0	0
Other Nonprocess Use	*	0	0	*	*	0
<b>End Use Not Reported</b>	*	0	*	0	*	0

**325180 Other Basic Inorganic Chemicals**

<b>TOTAL FUEL CONSUMPTION</b>	148	0	*	218	*	33
<b>Indirect Uses-Boiler Fuel</b>	1	0	*	99	*	30
Conventional Boiler Use	1	0	*	17	*	4
CHP and/or Cogeneration Process	--	0	*	82	*	26
<b>Direct Uses-Total Process</b>	134	0	*	115	*	3
Process Heating	7	0	0	58	*	3
Process Cooling and Refrigeration	6	0	0	1	0	0
Machine Drive	25	0	*	52	*	0
Electro-Chemical Processes	92	--	--	--	--	--
Other Process Use	5	0	*	5	*	0
<b>Direct Uses-Total Nonprocess</b>	8	0	*	4	*	0
Facility HVAC (f)	4	0	*	3	*	0
Facility Lighting	3	--	--	--	--	--
Other Facility Support	1	0	*	*	0	0
Onsite Transportation	*	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	0	0
Other Nonprocess Use	*	0	*	Q	*	0
<b>End Use Not Reported</b>	5	0	0	1	*	0

**325193 Ethyl Alcohol**

<b>TOTAL FUEL CONSUMPTION</b>	46	0	*	359	*	44
<b>Indirect Uses-Boiler Fuel</b>	2	0	0	205	*	44
Conventional Boiler Use	2	0	0	115	*	0
CHP and/or Cogeneration Process	--	0	0	90	*	44
<b>Direct Uses-Total Process</b>	41	0	*	143	*	0
Process Heating	1	0	0	127	*	0
Process Cooling and Refrigeration	6	0	*	1	0	0
Machine Drive	33	0	*	1	*	0
Electro-Chemical Processes	Q	--	--	--	--	--

Other Process Use	*	0	*	14	0	0
<b>Direct Uses-Total Nonprocess</b>	<b>3</b>	<b>0</b>	<b>*</b>	<b>11</b>	<b>*</b>	<b>0</b>
Facility HVAC (f)	1	0	*	7	*	0
Facility Lighting	2	--	--	--	--	--
Other Facility Support	*	0	*	4	*	0
Onsite Transportation	*	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	0	0
Other Nonprocess Use	*	0	*	*	*	0
<b>End Use Not Reported</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>0</b>

**325194 Cyclic Crudes, Intermediate and Gum and Wood Chemicals**

<b>TOTAL FUEL CONSUMPTION</b>	<b>11</b>	<b>0</b>	<b>*</b>	<b>51</b>	<b>*</b>	<b>0</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>*</b>	<b>0</b>	<b>*</b>	<b>23</b>	<b>*</b>	<b>0</b>
Conventional Boiler Use	*	0	*	11	*	0
CHP and/or Cogeneration Process	--	0	*	12	0	0
<b>Direct Uses-Total Process</b>	<b>9</b>	<b>0</b>	<b>*</b>	<b>27</b>	<b>*</b>	<b>0</b>
Process Heating	1	0	*	19	*	0
Process Cooling and Refrigeration	2	0	0	*	0	0
Machine Drive	5	0	*	0	*	0
Electro-Chemical Processes	1	--	--	--	--	--
Other Process Use	*	0	0	8	0	0
<b>Direct Uses-Total Nonprocess</b>	<b>2</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>*</b>	<b>0</b>
Facility HVAC (f)	1	0	*	*	*	0
Facility Lighting	1	--	--	--	--	--
Other Facility Support	*	0	0	*	*	0
Onsite Transportation	*	--	*	*	*	--
Conventional Electricity Generation	--	0	*	0	0	0
Other Nonprocess Use	*	0	*	0	0	0
<b>End Use Not Reported</b>	<b>*</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>*</b>	<b>0</b>

**325199 Other Basic Organic Chemicals**

<b>TOTAL FUEL CONSUMPTION</b>	<b>105</b>	<b>2</b>	<b>1</b>	<b>401</b>	<b>*</b>	<b>30</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>1</b>	<b>2</b>	<b>*</b>	<b>214</b>	<b>*</b>	<b>22</b>
Conventional Boiler Use	1	2	*	72	*	1
CHP and/or Cogeneration Process	--	*	*	142	*	21
<b>Direct Uses-Total Process</b>	<b>91</b>	<b>0</b>	<b>*</b>	<b>169</b>	<b>*</b>	<b>8</b>
Process Heating	2	0	*	120	*	*

Process Cooling and Refrigeration	14	0	*	1	*	0
Machine Drive	66	0	*	11	*	0
Electro-Chemical Processes	7	--	--	--	--	--
Other Process Use	1	0	*	36	*	8
<b>Direct Uses-Total Nonprocess</b>	<b>10</b>	<b>0</b>	<b>1</b>	<b>6</b>	<b>*</b>	<b>0</b>
Facility HVAC (f)	5	0	0	3	*	0
Facility Lighting	3	--	--	--	--	--
Other Facility Support	1	0	*	2	*	0
Onsite Transportation	*	--	1	*	*	--
Conventional Electricity Generation	--	0	*	*	*	0
Other Nonprocess Use	*	0	*	*	*	0
<b>End Use Not Reported</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>*</b>	<b>0</b>

**325211 Plastics Materials and Resins**

<b>TOTAL FUEL CONSUMPTION</b>	<b>132</b>	<b>0</b>	<b>D</b>	<b>418</b>	<b>D</b>	<b>D</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>1</b>	<b>0</b>	<b>*</b>	<b>283</b>	<b>Q</b>	<b>0</b>
Conventional Boiler Use	1	0	*	38	*	0
CHP and/or Cogeneration Process	--	0	*	244	*	0
<b>Direct Uses-Total Process</b>	<b>120</b>	<b>0</b>	<b>D</b>	<b>130</b>	<b>D</b>	<b>D</b>
Process Heating	3	0	D	82	*	D
Process Cooling and Refrigeration	12	0	*	1	0	0
Machine Drive	73	0	*	4	*	0
Electro-Chemical Processes	31	--	--	--	--	--
Other Process Use	1	0	*	43	D	0
<b>Direct Uses-Total Nonprocess</b>	<b>11</b>	<b>0</b>	<b>1</b>	<b>4</b>	<b>*</b>	<b>0</b>
Facility HVAC (f)	5	0	*	3	*	0
Facility Lighting	4	--	--	--	--	--
Other Facility Support	2	0	*	1	*	0
Onsite Transportation	*	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	0	0
Other Nonprocess Use	*	0	*	*	*	0
<b>End Use Not Reported</b>	<b>Q</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>*</b>	<b>0</b>

**325212 Synthetic Rubber**

<b>TOTAL FUEL CONSUMPTION</b>	<b>6</b>	<b>0</b>	<b>*</b>	<b>19</b>	<b>*</b>	<b>2</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>*</b>	<b>0</b>	<b>*</b>	<b>17</b>	<b>*</b>	<b>2</b>
Conventional Boiler Use	*	0	*	10	*	1

CHP and/or Cogeneration Process	--	0	*	6	0	*
<b>Direct Uses-Total Process</b>	<b>5</b>	<b>0</b>	<b>*</b>	<b>2</b>	<b>*</b>	<b>0</b>
Process Heating	*	0	0	2	*	0
Process Cooling and Refrigeration	1	0	0	*	*	0
Machine Drive	3	0	*	*	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	*	0	*	*	*	0
<b>Direct Uses-Total Nonprocess</b>	<b>1</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>*</b>	<b>0</b>
Facility HVAC (f)	*	0	0	*	*	0
Facility Lighting	*	--	--	--	--	--
Other Facility Support	*	0	*	*	*	0
Onsite Transportation	*	--	*	*	*	--
Conventional Electricity Generation	--	0	*	0	0	0
Other Nonprocess Use	*	0	*	*	0	0
<b>End Use Not Reported</b>	<b>*</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>0</b>

**325220 Artificial and Synthetic Fibers and Filaments**

<b>TOTAL FUEL CONSUMPTION</b>	<b>10</b>	<b>0</b>	<b>*</b>	<b>23</b>	<b>*</b>	<b>*</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>*</b>	<b>0</b>	<b>*</b>	<b>14</b>	<b>*</b>	<b>*</b>
Conventional Boiler Use	*	0	*	9	*	0
CHP and/or Cogeneration Process	--	0	0	5	*	*
<b>Direct Uses-Total Process</b>	<b>8</b>	<b>0</b>	<b>*</b>	<b>7</b>	<b>*</b>	<b>0</b>
Process Heating	1	0	*	6	*	0
Process Cooling and Refrigeration	1	0	0	0	0	0
Machine Drive	6	0	*	*	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	*	0	0	*	*	0
<b>Direct Uses-Total Nonprocess</b>	<b>2</b>	<b>0</b>	<b>*</b>	<b>2</b>	<b>*</b>	<b>0</b>
Facility HVAC (f)	1	0	0	2	*	0
Facility Lighting	1	--	--	--	--	--
Other Facility Support	*	0	0	*	*	0
Onsite Transportation	*	--	*	0	*	--
Conventional Electricity Generation	--	0	0	0	0	0
Other Nonprocess Use	*	0	*	0	*	0
<b>End Use Not Reported</b>	<b>*</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>0</b>

**325311 Nitrogenous Fertilizers**

<b>TOTAL FUEL CONSUMPTION</b>	19	0	*	213	*	0
<b>Indirect Uses-Boiler Fuel</b>	*	0	*	53	*	0
Conventional Boiler Use	*	0	*	26	*	0
CHP and/or Cogeneration Process	--	0	*	27	0	0
<b>Direct Uses-Total Process</b>	17	0	*	159	*	0
Process Heating	*	0	0	136	*	0
Process Cooling and Refrigeration	2	0	0	0	0	0
Machine Drive	15	0	*	4	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	*	0	*	20	0	0
<b>Direct Uses-Total Nonprocess</b>	2	0	*	1	*	0
Facility HVAC (f)	1	0	*	1	*	0
Facility Lighting	1	--	--	--	--	--
Other Facility Support	*	0	0	*	*	0
Onsite Transportation	*	--	*	0	*	--
Conventional Electricity Generation	--	0	*	*	0	0
Other Nonprocess Use	*	0	*	0	0	0
<b>End Use Not Reported</b>	0	0	0	0	*	0

**325312 Phosphatic Fertilizers**

<b>TOTAL FUEL CONSUMPTION</b>	8	*	D	24	*	D
<b>Indirect Uses-Boiler Fuel</b>	*	0	*	2	*	0
Conventional Boiler Use	*	0	0	1	*	0
CHP and/or Cogeneration Process	--	0	*	1	*	0
<b>Direct Uses-Total Process</b>	8	*	D	22	*	D
Process Heating	*	*	D	20	*	D
Process Cooling and Refrigeration	*	0	0	0	0	0
Machine Drive	7	0	*	*	*	0
Electro-Chemical Processes	0	--	--	--	--	--
Other Process Use	0	0	*	1	0	0
<b>Direct Uses-Total Nonprocess</b>	1	0	*	*	*	0
Facility HVAC (f)	*	0	*	*	*	0
Facility Lighting	*	--	--	--	--	--
Other Facility Support	*	0	*	*	*	0
Onsite Transportation	*	--	*	0	*	--
Conventional Electricity Generation	--	0	*	0	0	0
Other Nonprocess Use	0	0	*	0	0	0
<b>End Use Not Reported</b>	0	0	0	0	*	0



3254

## Pharmaceuticals and Medicines

<b>TOTAL FUEL CONSUMPTION</b>	38	0	1	62	*	*
<b>Indirect Uses-Boiler Fuel</b>	1	0	*	37	*	*
Conventional Boiler Use	1	0	*	20	*	*
CHP and/or Cogeneration Process	--	0	*	17	*	0
<b>Direct Uses-Total Process</b>	19	0	*	8	*	0
Process Heating	1	0	*	6	*	0
Process Cooling and Refrigeration	7	0	*	*	0	0
Machine Drive	10	0	*	1	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	1	0	*	*	*	0
Direct Uses-Total Nonprocess	17	0	*	17	*	*
<b>Facility HVAC (f)</b>	11	0	*	15	*	*
Facility Lighting	4	--	--	--	--	--
Other Facility Support	2	0	*	1	*	0
Onsite Transportation	*	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	*	0
Other Nonprocess Use	1	0	*	*	*	0
<b>End Use Not Reported</b>	1	0	0	1	*	0

325412

## Pharmaceutical Preparation

<b>TOTAL FUEL CONSUMPTION</b>	21	0	*	30	*	*
<b>Indirect Uses-Boiler Fuel</b>	1	0	*	14	*	*
Conventional Boiler Use	1	0	*	9	*	*
CHP and/or Cogeneration Process	--	0	*	5	*	0
<b>Direct Uses-Total Process</b>	11	0	*	5	*	0
Process Heating	1	0	*	4	*	0
Process Cooling and Refrigeration	3	0	*	*	0	0
Machine Drive	6	0	*	*	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	1	0	*	*	*	0
<b>Direct Uses-Total Nonprocess</b>	9	0	*	11	*	*
Facility HVAC (f)	6	0	*	10	*	*
Facility Lighting	2	--	--	--	--	--
Other Facility Support	1	0	*	*	*	0
Onsite Transportation	*	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	0	0

	Other Nonprocess Use	*	0	*	*	*	0
	<b>End Use Not Reported</b>	*	0	0	*	*	0

**325992 Photographic Film, Paper, Plate, and Chemicals**

	<b>TOTAL FUEL CONSUMPTION</b>	3	*	*	3	*	0
	<b>Indirect Uses-Boiler Fuel</b>	*	*	*	2	0	0
	Conventional Boiler Use	*	0	*	1	0	0
	CHP and/or Cogeneration Process	--	*	*	1	0	0
	<b>Direct Uses-Total Process</b>	2	0	*	1	*	0
	Process Heating	*	0	*	*	0	0
	Process Cooling and Refrigeration	1	0	*	*	0	0
	Machine Drive	1	0	*	*	*	0
	Electro-Chemical Processes	*	--	--	--	--	--
	Other Process Use	*	0	*	*	0	0
	<b>Direct Uses-Total Nonprocess</b>	1	0	*	*	*	0
	Facility HVAC (f)	1	0	*	*	0	0
	Facility Lighting	*	--	--	--	--	--
	Other Facility Support	*	0	*	*	*	0
	Onsite Transportation	*	--	*	0	*	--
	Conventional Electricity Generation	--	0	*	*	0	0
	Other Nonprocess Use	*	0	*	*	*	0
	<b>End Use Not Reported</b>	*	0	0	*	*	0

**326 PLASTICS AND RUBBER PRODUCTS**

	<b>TOTAL FUEL CONSUMPTION</b>	168	*	Q	83	3	0
	<b>Indirect Uses-Boiler Fuel</b>	Q	*	*	31	*	0
	Conventional Boiler Use	Q	*	*	11	*	0
	CHP and/or Cogeneration Process	--	0	*	20	*	0
	<b>Direct Uses-Total Process</b>	126	0	Q	31	Q	0
	Process Heating	19	0	Q	29	*	0
	Process Cooling and Refrigeration	14	0	0	*	0	0
	Machine Drive	86	0	*	*	*	0
	Electro-Chemical Processes	Q	--	--	--	--	--
	Other Process Use	5	0	*	Q	*	0
	<b>Direct Uses-Total Nonprocess</b>	39	0	*	22	2	0
	Facility HVAC (f)	17	0	0	21	*	0
	Facility Lighting	13	--	--	--	--	--

Other Facility Support	5	0	0	1	*	0
Onsite Transportation	2	--	*	*	2	--
Conventional Electricity Generation	--	0	*	*	0	0
Other Nonprocess Use	Q	0	*	0	*	0
<b>End Use Not Reported</b>	Q	0	0	0	*	0

**327 NONMETALLIC MINERAL PRODUCTS**

<b>TOTAL FUEL CONSUMPTION</b>	130	*	20	348	2	189
<b>Indirect Uses-Boiler Fuel</b>	*	0	*	12	*	*
Conventional Boiler Use	*	0	*	2	*	*
CHP and/or Cogeneration Process	--	0	*	10	*	*
<b>Direct Uses-Total Process</b>	113	*	10	317	Q	189
Process Heating	26	*	Q	283	Q	154
Process Cooling and Refrigeration	6	0	0	3	0	3
Machine Drive	71	*	6	25	*	14
Electro-Chemical Processes	3	--	--	--	--	--
Other Process Use	7	0	*	Q	*	Q
<b>Direct Uses-Total Nonprocess</b>	16	0	11	18	1	*
Facility HVAC (f)	7	0	*	16	*	0
Facility Lighting	6	--	--	--	--	--
Other Facility Support	2	0	*	2	*	*
Onsite Transportation	*	--	9	*	1	--
Conventional Electricity Generation	--	0	*	*	*	0
Other Nonprocess Use	1	0	Q	1	*	0
<b>End Use Not Reported</b>	1	0	0	1	*	0

**327120 Clay Building Material and Refractories**

<b>TOTAL FUEL CONSUMPTION</b>	6	0	*	36	*	3
<b>Indirect Uses-Boiler Fuel</b>	*	0	0	*	*	0
Conventional Boiler Use	*	0	0	*	*	0
CHP and/or Cogeneration Process	--	0	0	*	0	0
<b>Direct Uses-Total Process</b>	5	0	*	35	*	3
Process Heating	1	0	*	34	*	2
Process Cooling and Refrigeration	*	0	0	0	0	0
Machine Drive	4	0	*	*	*	0
Electro-Chemical Processes	0	--	--	--	--	--
Other Process Use	*	0	*	*	*	1

<b>Direct Uses-Total Nonprocess</b>	1	0	*	1	*	0
Facility HVAC (f)	*	0	*	1	*	0
Facility Lighting	*	--	--	--	--	--
Other Facility Support	*	0	*	*	0	0
Onsite Transportation	*	--	*	*	*	--
Conventional Electricity Generation	--	0	*	0	0	0
Other Nonprocess Use	*	0	*	0	*	0
<b>End Use Not Reported</b>	*	0	0	0	*	0

**327211 Flat Glass**

<b>TOTAL FUEL CONSUMPTION</b>	5	0	*	41	*	0
<b>Indirect Uses-Boiler Fuel</b>	*	0	0	*	0	0
Conventional Boiler Use	*	0	0	*	0	0
CHP and/or Cogeneration Process	--	0	0	*	0	0
<b>Direct Uses-Total Process</b>	4	0	*	39	*	0
Process Heating	2	0	0	39	*	0
Process Cooling and Refrigeration	1	0	0	0	0	0
Machine Drive	1	0	*	*	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	*	0	*	*	0	0
<b>Direct Uses-Total Nonprocess</b>	1	0	*	2	*	0
Facility HVAC (f)	*	0	0	1	0	0
Facility Lighting	*	--	--	--	--	--
Other Facility Support	*	0	0	*	0	0
Onsite Transportation	*	--	*	0	*	--
Conventional Electricity Generation	--	0	*	0	0	0
Other Nonprocess Use	*	0	*	*	0	0
<b>End Use Not Reported</b>	*	0	0	0	*	0

**327212 Other Pressed and Blown Glass and Glassware**

<b>TOTAL FUEL CONSUMPTION</b>	7	0	*	22	*	0
<b>Indirect Uses-Boiler Fuel</b>	*	0	*	1	*	0
Conventional Boiler Use	*	0	*	*	0	0
CHP and/or Cogeneration Process	--	0	0	*	*	0
<b>Direct Uses-Total Process</b>	6	0	*	21	*	0
Process Heating	3	0	*	20	*	0
Process Cooling and Refrigeration	1	0	0	*	0	0

Machine Drive	2	0	*	1	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	*	0	*	*	*	0
<b>Direct Uses-Total Nonprocess</b>	<b>1</b>	<b>0</b>	<b>*</b>	<b>1</b>	<b>*</b>	<b>0</b>
Facility HVAC (f)	1	0	0	1	*	0
Facility Lighting	*	--	--	--	--	--
Other Facility Support	*	0	0	*	*	0
Onsite Transportation	*	--	*	0	*	--
Conventional Electricity Generation	--	0	*	*	0	0
Other Nonprocess Use	*	0	*	0	*	0
<b>End Use Not Reported</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>0</b>

**327213 Glass Containers**

<b>TOTAL FUEL CONSUMPTION</b>	<b>12</b>	<b>0</b>	<b>*</b>	<b>42</b>	<b>*</b>	<b>0</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>*</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>0</b>	<b>0</b>
Conventional Boiler Use	*	0	0	0	0	0
CHP and/or Cogeneration Process	--	0	0	*	0	0
<b>Direct Uses-Total Process</b>	<b>10</b>	<b>0</b>	<b>*</b>	<b>39</b>	<b>*</b>	<b>0</b>
Process Heating	4	0	0	37	*	0
Process Cooling and Refrigeration	*	0	0	*	0	0
Machine Drive	5	0	*	2	0	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	*	0	0	0	0	0
<b>Direct Uses-Total Nonprocess</b>	<b>1</b>	<b>0</b>	<b>*</b>	<b>3</b>	<b>*</b>	<b>0</b>
Facility HVAC (f)	1	0	0	2	*	0
Facility Lighting	1	--	--	--	--	--
Other Facility Support	*	0	0	*	0	0
Onsite Transportation	*	--	*	0	*	--
Conventional Electricity Generation	--	0	*	0	0	0
Other Nonprocess Use	*	0	0	*	0	0
<b>End Use Not Reported</b>	<b>*</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>0</b>	<b>0</b>

**327215 Glass Products from Purchased Glass**

<b>TOTAL FUEL CONSUMPTION</b>	<b>13</b>	<b>0</b>	<b>*</b>	<b>8</b>	<b>*</b>	<b>0</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>*</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>*</b>	<b>0</b>
Conventional Boiler Use	*	0	*	*	*	0
CHP and/or Cogeneration Process	--	0	*	*	*	0

<b>Direct Uses-Total Process</b>	10	0	*	6	*	0
Process Heating	5	0	0	5	*	0
Process Cooling and Refrigeration	1	0	0	*	0	0
Machine Drive	3	0	*	*	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	1	0	*	*	*	0
<b>Direct Uses-Total Nonprocess</b>	3	0	*	1	*	0
Facility HVAC (f)	1	0	*	1	*	0
Facility Lighting	1	--	--	--	--	--
Other Facility Support	*	0	*	*	*	0
Onsite Transportation	*	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	*	0
Other Nonprocess Use	*	0	*	*	*	0
<b>End Use Not Reported</b>	*	0	0	*	*	0

**327310 Cements**

<b>TOTAL FUEL CONSUMPTION</b>	39	0	1	58	*	106
<b>Indirect Uses-Boiler Fuel</b>	*	0	0	*	0	*
Conventional Boiler Use	*	0	0	*	0	*
CHP and/or Cogeneration Process	--	0	0	*	0	*
<b>Direct Uses-Total Process</b>	37	0	1	57	*	105
Process Heating	4	0	*	36	*	89
Process Cooling and Refrigeration	2	0	0	3	0	3
Machine Drive	30	0	*	17	*	14
Electro-Chemical Processes	1	--	--	--	--	--
Other Process Use	1	0	*	0	0	0
<b>Direct Uses-Total Nonprocess</b>	2	0	1	*	*	*
Facility HVAC (f)	1	0	*	*	*	0
Facility Lighting	1	--	--	--	--	--
Other Facility Support	*	0	0	*	*	*
Onsite Transportation	*	--	1	0	*	--
Conventional Electricity Generation	--	0	*	0	0	0
Other Nonprocess Use	*	0	*	0	*	0
<b>End Use Not Reported</b>	*	0	0	*	0	0

**327410 Lime**

<b>TOTAL FUEL CONSUMPTION</b>	5	0	1	18	*	63
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<b>Indirect Uses-Boiler Fuel</b>	*	0	0	*	0	0
Conventional Boiler Use	*	0	0	*	0	0
CHP and/or Cogeneration Process	--	0	0	0	0	0
<b>Direct Uses-Total Process</b>	<b>4</b>	<b>0</b>	<b>*</b>	<b>18</b>	<b>*</b>	<b>63</b>
Process Heating	1	0	*	18	*	63
Process Cooling and Refrigeration	*	0	0	0	0	0
Machine Drive	3	0	*	1	*	0
Electro-Chemical Processes	0	--	--	--	--	--
Other Process Use	*	0	*	0	0	0
<b>Direct Uses-Total Nonprocess</b>	<b>*</b>	<b>0</b>	<b>1</b>	<b>*</b>	<b>*</b>	<b>0</b>
Facility HVAC (f)	*	0	0	*	*	0
Facility Lighting	*	--	--	--	--	--
Other Facility Support	*	0	0	*	*	0
Onsite Transportation	*	--	1	0	*	--
Conventional Electricity Generation	--	0	0	0	0	0
Other Nonprocess Use	*	0	0	0	*	0
<b>End Use Not Reported</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**327420 Gypsum**

<b>TOTAL FUEL CONSUMPTION</b>	<b>5</b>	<b>0</b>	<b>1</b>	<b>52</b>	<b>*</b>	<b>0</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>*</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>
Conventional Boiler Use	*	0	0	*	0	0
CHP and/or Cogeneration Process	--	0	0	1	0	0
<b>Direct Uses-Total Process</b>	<b>5</b>	<b>0</b>	<b>*</b>	<b>50</b>	<b>0</b>	<b>0</b>
Process Heating	*	0	*	49	0	0
Process Cooling and Refrigeration	*	0	0	*	0	0
Machine Drive	4	0	*	1	0	0
Electro-Chemical Processes	0	--	--	--	--	--
Other Process Use	*	0	0	0	0	0
<b>Direct Uses-Total Nonprocess</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>*</b>	<b>0</b>
Facility HVAC (f)	*	0	*	1	*	0
Facility Lighting	*	--	--	--	--	--
Other Facility Support	*	0	*	*	0	0
Onsite Transportation	*	--	1	*	*	--
Conventional Electricity Generation	--	0	*	0	0	0
Other Nonprocess Use	*	0	*	0	*	0
<b>End Use Not Reported</b>	<b>*</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>0</b>

**327993 Mineral Wool**

<b>TOTAL FUEL CONSUMPTION</b>	11	0	*	22	*	*
<b>Indirect Uses-Boiler Fuel</b>	*	0	0	*	0	0
Conventional Boiler Use	*	0	0	*	0	0
CHP and/or Cogeneration Process	--	0	0	*	0	0
<b>Direct Uses-Total Process</b>	9	0	*	20	*	*
Process Heating	4	0	*	19	*	*
Process Cooling and Refrigeration	1	0	0	*	0	0
Machine Drive	5	0	*	*	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	*	0	*	*	0	0
<b>Direct Uses-Total Nonprocess</b>	1	0	*	2	*	0
Facility HVAC (f)	1	0	*	1	*	0
Facility Lighting	1	--	--	--	--	--
Other Facility Support	*	0	*	*	0	0
Onsite Transportation	*	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	0	0
Other Nonprocess Use	*	0	*	0	0	0
<b>End Use Not Reported</b>	*	0	0	0	0	0

**331 PRIMARY METALS**

<b>TOTAL FUEL CONSUMPTION</b>	414	*	6	639	3	26
<b>Indirect Uses-Boiler Fuel</b>	2	*	*	68	*	0
Conventional Boiler Use	2	*	*	21	*	0
CHP and/or Cogeneration Process	--	*	*	47	*	0
<b>Direct Uses-Total Process</b>	376	*	1	524	1	26
Process Heating	130	0	*	480	1	7
Process Cooling and Refrigeration	11	0	*	3	*	0
Machine Drive	126	*	1	5	*	0
Electro-Chemical Processes	91	--	--	--	--	--
Other Process Use	18	0	*	36	*	20
<b>Direct Uses-Total Nonprocess</b>	36	0	5	46	2	0
Facility HVAC (f)	14	0	*	40	*	0
Facility Lighting	15	--	--	--	--	--
Other Facility Support	5	0	*	3	*	0
Onsite Transportation	1	--	5	*	1	--
Conventional Electricity Generation	--	0	*	*	*	0
Other Nonprocess Use	1	0	*	2	*	0



<b>End Use Not Reported</b>	1	0	0	2	*	0
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**331110 Iron and Steel Mills and Ferroalloys**

<b>TOTAL FUEL CONSUMPTION</b>	206	*	4	411	*	26
<b>Indirect Uses-Boiler Fuel</b>	1	*	*	41	*	0
Conventional Boiler Use	1	*	0	16	0	0
CHP and/or Cogeneration Process	--	*	*	25	*	0
<b>Direct Uses-Total Process</b>	191	0	*	349	*	26
Process Heating	91	0	*	314	*	7
Process Cooling and Refrigeration	5	0	0	3	*	0
Machine Drive	74	0	*	1	*	0
Electro-Chemical Processes	10	--	--	--	--	--
Other Process Use	11	0	*	31	*	20
<b>Direct Uses-Total Nonprocess</b>	15	0	4	19	*	0
Facility HVAC (f)	5	0	*	15	*	0
Facility Lighting	7	--	--	--	--	--
Other Facility Support	2	0	*	1	*	0
Onsite Transportation	*	--	4	*	*	--
Conventional Electricity Generation	--	0	*	*	*	0
Other Nonprocess Use	*	0	*	2	*	0
<b>End Use Not Reported</b>	*	0	0	1	*	0

**3312 Steel Products from Purchased Steel**

<b>TOTAL FUEL CONSUMPTION</b>	24	0	*	25	*	*
<b>Indirect Uses-Boiler Fuel</b>	*	0	*	3	*	0
Conventional Boiler Use	*	0	0	1	*	0
CHP and/or Cogeneration Process	--	0	*	2	*	0
<b>Direct Uses-Total Process</b>	20	0	*	19	*	*
Process Heating	5	0	*	18	*	*
Process Cooling and Refrigeration	2	0	0	*	*	0
Machine Drive	10	0	*	1	*	0
Electro-Chemical Processes	2	--	--	--	--	--
Other Process Use	*	0	*	1	*	0
<b>Direct Uses-Total Nonprocess</b>	3	0	*	3	*	0
Facility HVAC (f)	1	0	*	3	*	0
Facility Lighting	1	--	--	--	--	--
Other Facility Support	*	0	*	*	*	0

Onsite Transportation	*	--	*	0	*	--
Conventional Electricity Generation	--	0	*	*	*	0
Other Nonprocess Use	*	0	0	0	*	0
<b>End Use Not Reported</b>	*	0	0	0	*	0

**3313 Alumina and Aluminum**

<b>TOTAL FUEL CONSUMPTION</b>	102	0	1	116	1	0
<b>Indirect Uses-Boiler Fuel</b>	1	0	*	14	*	0
Conventional Boiler Use	1	0	0	1	*	0
CHP and/or Cogeneration Process	--	0	*	14	*	0
<b>Direct Uses-Total Process</b>	94	0	*	93	*	0
Process Heating	4	0	*	90	*	0
Process Cooling and Refrigeration	1	0	0	*	*	0
Machine Drive	21	0	*	1	*	0
Electro-Chemical Processes	67	--	--	--	--	--
Other Process Use	1	0	*	2	*	0
<b>Direct Uses-Total Nonprocess</b>	8	0	1	9	*	0
Facility HVAC (f)	2	0	*	8	*	0
Facility Lighting	3	--	--	--	--	--
Other Facility Support	2	0	*	1	*	0
Onsite Transportation	*	--	1	*	*	--
Conventional Electricity Generation	--	0	0	*	*	0
Other Nonprocess Use	1	0	*	0	*	0
<b>End Use Not Reported</b>	*	0	0	1	*	0

**331314 Secondary Smelting and Alloying of Aluminum**

<b>TOTAL FUEL CONSUMPTION</b>	3	0	*	18	*	0
<b>Indirect Uses-Boiler Fuel</b>	*	0	0	*	0	0
Conventional Boiler Use	*	0	0	*	0	0
CHP and/or Cogeneration Process	--	0	0	*	0	0
<b>Direct Uses-Total Process</b>	2	0	*	17	*	0
Process Heating	*	0	0	17	*	0
Process Cooling and Refrigeration	*	0	0	*	0	0
Machine Drive	2	0	*	*	*	0
Electro-Chemical Processes	0	--	--	--	--	--
Other Process Use	*	0	0	*	*	0
<b>Direct Uses-Total Nonprocess</b>	*	0	*	1	*	0

Facility HVAC (f)	*	0	*	1	*	0
Facility Lighting	*	--	--	--	--	--
Other Facility Support	*	0	*	*	*	0
Onsite Transportation	*	--	*	0	*	--
Conventional Electricity Generation	--	0	0	0	0	0
Other Nonprocess Use	*	0	*	0	*	0
<b>End Use Not Reported</b>	0	0	0	0	*	0

**331315 Aluminum Sheet, Plate and Foils**

<b>TOTAL FUEL CONSUMPTION</b>	18	0	*	54	*	0
<b>Indirect Uses-Boiler Fuel</b>	*	0	*	1	0	0
Conventional Boiler Use	*	0	0	*	0	0
CHP and/or Cogeneration Process	--	0	*	*	0	0
<b>Direct Uses-Total Process</b>	16	0	*	51	*	0
Process Heating	2	0	0	50	*	0
Process Cooling and Refrigeration	1	0	0	0	0	0
Machine Drive	13	0	*	*	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	*	0	*	2	*	0
<b>Direct Uses-Total Nonprocess</b>	2	0	*	2	*	0
Facility HVAC (f)	1	0	0	2	0	0
Facility Lighting	1	--	--	--	--	--
Other Facility Support	*	0	0	*	0	0
Onsite Transportation	*	--	*	0	*	--
Conventional Electricity Generation	--	0	0	0	0	0
Other Nonprocess Use	0	0	*	0	*	0
<b>End Use Not Reported</b>	0	0	0	0	0	0

**331318 Other Aluminum Rolling, Drawing and Extruding**

<b>TOTAL FUEL CONSUMPTION</b>	7	0	*	17	*	0
<b>Indirect Uses-Boiler Fuel</b>	*	0	0	1	*	0
Conventional Boiler Use	*	0	0	*	*	0
CHP and/or Cogeneration Process	--	0	0	1	*	0
<b>Direct Uses-Total Process</b>	5	0	*	15	*	0
<b>Process Heating</b>	1	0	*	14	*	0
Process Cooling and Refrigeration	*	0	0	*	*	0
Machine Drive	3	0	0	1	*	0

Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	*	0	0	*	*	0
<b>Direct Uses-Total Nonprocess</b>	<b>1</b>	<b>0</b>	<b>*</b>	<b>1</b>	<b>*</b>	<b>0</b>
Facility HVAC (f)	*	0	*	1	*	0
Facility Lighting	1	--	--	--	--	--
Other Facility Support	*	0	0	*	*	0
Onsite Transportation	*	--	*	*	*	--
Conventional Electricity Generation	--	0	0	*	0	0
Other Nonprocess Use	*	0	0	0	*	0
<b>End Use Not Reported</b>	<b>*</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>0</b>

**3314 Nonferrous Metals, except Aluminum**

<b>TOTAL FUEL CONSUMPTION</b>	<b>45</b>	<b>0</b>	<b>*</b>	<b>42</b>	<b>1</b>	<b>0</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>*</b>	<b>0</b>	<b>*</b>	<b>8</b>	<b>*</b>	<b>0</b>
Conventional Boiler Use	*	0	0	3	*	0
CHP and/or Cogeneration Process	--	0	*	6	*	0
<b>Direct Uses-Total Process</b>	<b>41</b>	<b>0</b>	<b>*</b>	<b>29</b>	<b>*</b>	<b>0</b>
Process Heating	13	0	*	28	*	0
Process Cooling and Refrigeration	2	0	0	*	*	0
Machine Drive	10	0	*	*	*	0
Electro-Chemical Processes	12	--	--	--	--	--
Other Process Use	4	0	0	*	*	0
<b>Direct Uses-Total Nonprocess</b>	<b>4</b>	<b>0</b>	<b>*</b>	<b>4</b>	<b>*</b>	<b>0</b>
Facility HVAC (f)	2	0	*	4	*	0
Facility Lighting	2	--	--	--	--	--
Other Facility Support	*	0	*	*	*	0
Onsite Transportation	*	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	*	0
Other Nonprocess Use	*	0	*	*	*	0
<b>End Use Not Reported</b>	<b>*</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>0</b>

**331410 Nonferrous Metal (except Aluminum) Smelting and Refining**

<b>TOTAL FUEL CONSUMPTION</b>	<b>27</b>	<b>0</b>	<b>*</b>	<b>16</b>	<b>*</b>	<b>0</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>*</b>	<b>0</b>	<b>*</b>	<b>6</b>	<b>*</b>	<b>0</b>
Conventional Boiler Use	*	0	0	2	0	0
CHP and/or Cogeneration Process	--	0	*	4	*	0
<b>Direct Uses-Total Process</b>	<b>26</b>	<b>0</b>	<b>*</b>	<b>9</b>	<b>*</b>	<b>0</b>

Process Heating	8	0	*	9	*	0
Process Cooling and Refrigeration	1	0	0	*	0	0
Machine Drive	3	0	*	*	*	0
Electro-Chemical Processes	11	--	--	--	--	--
Other Process Use	2	0	0	*	*	0
<b>Direct Uses-Total Nonprocess</b>	<b>1</b>	<b>0</b>	<b>*</b>	<b>1</b>	<b>*</b>	<b>0</b>
Facility HVAC (f)	1	0	*	1	*	0
Facility Lighting	1	--	--	--	--	--
Other Facility Support	*	0	*	*	*	0
Onsite Transportation	*	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	0	0
Other Nonprocess Use	0	0	*	0	*	0
<b>End Use Not Reported</b>	<b>*</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>0</b>

**3315 Foundries**

<b>TOTAL FUEL CONSUMPTION</b>	<b>37</b>	<b>*</b>	<b>*</b>	<b>44</b>	<b>1</b>	<b>*</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>*</b>	<b>0</b>	<b>*</b>	<b>1</b>	<b>*</b>	<b>0</b>
Conventional Boiler Use	*	0	*	*	*	0
CHP and/or Cogeneration Process	--	0	*	1	*	0
<b>Direct Uses-Total Process</b>	<b>31</b>	<b>*</b>	<b>*</b>	<b>33</b>	<b>*</b>	<b>*</b>
Process Heating	16	0	*	29	*	*
Process Cooling and Refrigeration	1	0	*	*	*	0
Machine Drive	12	*	*	2	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	2	0	*	2	*	*
<b>Direct Uses-Total Nonprocess</b>	<b>5</b>	<b>0</b>	<b>*</b>	<b>10</b>	<b>*</b>	<b>0</b>
Facility HVAC (f)	3	0	*	9	*	0
Facility Lighting	2	--	--	--	--	--
Other Facility Support	1	0	*	*	*	0
Onsite Transportation	*	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	0	0
Other Nonprocess Use	*	0	*	*	*	0
<b>End Use Not Reported</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>0</b>

**331511 Iron Foundries**

<b>TOTAL FUEL CONSUMPTION</b>	<b>18</b>	<b>0</b>	<b>*</b>	<b>12</b>	<b>*</b>	<b>*</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>*</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>*</b>	<b>0</b>

Conventional Boiler Use	*	0	*	*	*	0
CHP and/or Cogeneration Process	--	0	*	*	0	0
<b>Direct Uses-Total Process</b>	<b>15</b>	<b>0</b>	<b>*</b>	<b>7</b>	<b>*</b>	<b>*</b>
Process Heating	8	0	*	6	*	0
Process Cooling and Refrigeration	*	0	0	*	*	0
Machine Drive	5	0	*	1	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	1	0	0	*	*	*
<b>Direct Uses-Total Nonprocess</b>	<b>2</b>	<b>0</b>	<b>*</b>	<b>5</b>	<b>*</b>	<b>0</b>
Facility HVAC (f)	1	0	*	5	*	0
Facility Lighting	1	--	--	--	--	--
Other Facility Support	*	0	0	*	*	0
Onsite Transportation	*	--	*	*	*	--
Conventional Electricity Generation	--	0	*	0	0	0
Other Nonprocess Use	*	0	*	*	*	0
<b>End Use Not Reported</b>	<b>*</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>0</b>

**331523 Nonferrous Metal Die-Casting Foundries**

<b>TOTAL FUEL CONSUMPTION</b>	<b>7</b>	<b>*</b>	<b>*</b>	<b>15</b>	<b>*</b>	<b>0</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>*</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>*</b>	<b>0</b>
Conventional Boiler Use	*	0	*	*	*	0
CHP and/or Cogeneration Process	--	0	*	*	*	0
<b>Direct Uses-Total Process</b>	<b>6</b>	<b>*</b>	<b>*</b>	<b>12</b>	<b>*</b>	<b>0</b>
Process Heating	2	0	*	10	*	0
Process Cooling and Refrigeration	*	0	*	*	*	0
Machine Drive	3	*	*	1	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	*	0	*	*	*	0
<b>Direct Uses-Total Nonprocess</b>	<b>1</b>	<b>0</b>	<b>*</b>	<b>2</b>	<b>*</b>	<b>0</b>
Facility HVAC (f)	1	0	*	2	*	0
Facility Lighting	*	--	--	--	--	--
Other Facility Support	*	0	*	*	*	0
Onsite Transportation	*	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	0	0
Other Nonprocess Use	*	0	*	0	0	0
<b>End Use Not Reported</b>	<b>*</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>0</b>

**331524 Aluminum Foundries, except Die-Casting**

<b>TOTAL FUEL CONSUMPTION</b>	3	0	*	6	*	0
<b>Indirect Uses-Boiler Fuel</b>	*	0	0	*	*	0
Conventional Boiler Use	*	0	0	*	*	0
CHP and/or Cogeneration Process	--	0	0	*	*	0
<b>Direct Uses-Total Process</b>	2	0	*	5	*	0
Process Heating	1	0	*	4	*	0
Process Cooling and Refrigeration	*	0	0	*	*	0
Machine Drive	1	0	*	*	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	*	0	*	*	*	0
<b>Direct Uses-Total Nonprocess</b>	*	0	*	1	*	0
Facility HVAC (f)	*	0	*	1	*	0
Facility Lighting	*	--	--	--	--	--
Other Facility Support	*	0	*	*	*	0
Onsite Transportation	*	--	*	*	*	--
Conventional Electricity Generation	--	0	0	*	0	0
Other Nonprocess Use	*	0	*	0	0	0
<b>End Use Not Reported</b>	*	0	0	*	*	0

**332 FABRICATED METAL PRODUCTS**

<b>TOTAL FUEL CONSUMPTION</b>	124	0	Q	124	3	*
<b>Indirect Uses-Boiler Fuel</b>	1	0	*	13	*	0
Conventional Boiler Use	1	0	0	Q	*	0
CHP and/or Cogeneration Process	--	0	*	11	*	0
<b>Direct Uses-Total Process</b>	84	0	*	74	*	0
Process Heating	20	0	0	70	*	0
Process Cooling and Refrigeration	5	0	0	*	0	0
Machine Drive	51	0	*	Q	*	0
Electro-Chemical Processes	Q	--	--	--	--	--
Other Process Use	2	0	*	Q	*	0
<b>Direct Uses-Total Nonprocess</b>	34	0	Q	33	3	*
Facility HVAC (f)	17	0	*	31	1	*
Facility Lighting	13	--	--	--	--	--
Other Facility Support	3	0	*	2	*	0
Onsite Transportation	1	--	Q	*	2	--
Conventional Electricity Generation	--	0	*	*	0	0
Other Nonprocess Use	*	0	*	0	*	0
<b>End Use Not Reported</b>	Q	0	0	Q	*	0

333 MACHINERY

<b>TOTAL FUEL CONSUMPTION</b>	81	*	2	59	3	*
<b>Indirect Uses-Boiler Fuel</b>	1	*	*	7	*	0
Conventional Boiler Use	1	0	0	Q	0	0
CHP and/or Cogeneration Process	--	*	*	5	*	0
<b>Direct Uses-Total Process</b>	50	0	1	25	Q	0
Process Heating	4	0	*	19	Q	0
Process Cooling and Refrigeration	3	0	0	*	0	0
Machine Drive	41	0	*	3	*	0
Electro-Chemical Processes	Q	--	--	--	--	--
Other Process Use	1	0	1	2	*	0
<b>Direct Uses-Total Nonprocess</b>	27	*	1	27	2	*
Facility HVAC (f)	14	*	*	25	1	*
Facility Lighting	10	--	--	--	--	--
Other Facility Support	3	0	0	1	*	0
Onsite Transportation	1	--	Q	*	1	--
Conventional Electricity Generation	--	0	*	*	*	0
Other Nonprocess Use	*	0	*	*	*	0
<b>End Use Not Reported</b>	Q	0	0	*	Q	0

334 COMPUTER AND ELECTRONIC PRODUCTS

<b>TOTAL FUEL CONSUMPTION</b>	76	*	*	30	*	0
<b>Indirect Uses-Boiler Fuel</b>	1	*	*	11	*	0
Conventional Boiler Use	1	0	*	8	*	0
CHP and/or Cogeneration Process	--	*	*	3	0	0
<b>Direct Uses-Total Process</b>	42	0	*	3	*	0
Process Heating	7	0	*	1	*	0
Process Cooling and Refrigeration	12	0	0	*	0	0
Machine Drive	14	0	*	Q	*	0
Electro-Chemical Processes	2	--	--	--	--	--
Other Process Use	7	0	*	1	0	0
<b>Direct Uses-Total Nonprocess</b>	29	*	*	17	*	0
Facility HVAC (f)	19	*	*	15	*	0
Facility Lighting	6	--	--	--	--	--
Other Facility Support	3	0	*	1	*	0
Onsite Transportation	*	--	*	*	*	--



Conventional Electricity Generation	--	0	*	*	0	0
Other Nonprocess Use	1	0	*	1	*	0
<b>End Use Not Reported</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>0</b>

**334413 Semiconductors and Related Devices**

<b>TOTAL FUEL CONSUMPTION</b>	<b>40</b>	<b>*</b>	<b>*</b>	<b>14</b>	<b>*</b>	<b>0</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>*</b>	<b>*</b>	<b>*</b>	<b>7</b>	<b>*</b>	<b>0</b>
Conventional Boiler Use	*	0	*	5	*	0
CHP and/or Cogeneration Process	--	*	*	2	0	0
<b>Direct Uses-Total Process</b>	<b>25</b>	<b>0</b>	<b>*</b>	<b>2</b>	<b>*</b>	<b>0</b>
Process Heating	5	0	0	1	*	0
Process Cooling and Refrigeration	6	0	0	0	0	0
Machine Drive	8	0	*	0	0	0
Electro-Chemical Processes	1	--	--	--	--	--
Other Process Use	6	0	*	1	0	0
<b>Direct Uses-Total Nonprocess</b>	<b>13</b>	<b>0</b>	<b>*</b>	<b>5</b>	<b>*</b>	<b>0</b>
Facility HVAC (f)	9	0	*	4	*	0
Facility Lighting	2	--	--	--	--	--
Other Facility Support	1	0	*	*	*	0
Onsite Transportation	*	--	*	0	*	--
Conventional Electricity Generation	--	0	*	0	0	0
Other Nonprocess Use	1	0	*	1	*	0
<b>End Use Not Reported</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>0</b>

**335 ELEC. EQUIP., APPLIANCES, COMPONENTS**

<b>TOTAL FUEL CONSUMPTION</b>	<b>38</b>	<b>*</b>	<b>*</b>	<b>37</b>	<b>1</b>	<b>0</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>Q</b>	<b>0</b>	<b>*</b>	<b>6</b>	<b>*</b>	<b>0</b>
Conventional Boiler Use	Q	0	*	2	0	0
CHP and/or Cogeneration Process	--	0	0	Q	*	0
<b>Direct Uses-Total Process</b>	<b>25</b>	<b>0</b>	<b>*</b>	<b>19</b>	<b>*</b>	<b>0</b>
Process Heating	8	0	0	18	*	0
Process Cooling and Refrigeration	2	0	0	*	0	0
Machine Drive	13	0	*	*	0	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	2	0	*	Q	*	0
<b>Direct Uses-Total Nonprocess</b>	<b>12</b>	<b>*</b>	<b>*</b>	<b>10</b>	<b>1</b>	<b>0</b>
Facility HVAC (f)	7	0	0	9	*	0

Facility Lighting	3	--	--	--	--	--
Other Facility Support	1	0	0	1	0	0
Onsite Transportation	*	--	*	*	1	--
Conventional Electricity Generation	--	0	*	*	0	0
Other Nonprocess Use	*	*	*	*	*	0
<b>End Use Not Reported</b>	Q	0	0	*	*	0

**336 TRANSPORTATION EQUIPMENT**

<b>TOTAL FUEL CONSUMPTION</b>	174	2	4	157	3	0
<b>Indirect Uses-Boiler Fuel</b>	1	2	*	25	*	0
Conventional Boiler Use	1	2	*	14	*	0
CHP and/or Cogeneration Process	--	*	*	12	*	0
<b>Direct Uses-Total Process</b>	111	*	2	69	*	0
Process Heating	16	0	0	63	*	0
Process Cooling and Refrigeration	12	0	0	2	*	0
Machine Drive	76	0	2	1	*	0
Electro-Chemical Processes	1	--	--	--	--	--
Other Process Use	7	*	*	3	*	0
<b>Direct Uses-Total Nonprocess</b>	60	*	2	62	2	0
Facility HVAC (f)	31	0	*	58	*	0
Facility Lighting	20	--	--	--	--	--
Other Facility Support	5	0	*	2	*	0
Onsite Transportation	2	--	1	*	2	--
Conventional Electricity Generation	--	0	*	*	*	0
Other Nonprocess Use	1	*	*	1	*	0
<b>End Use Not Reported</b>	Q	0	0	1	*	0

**336111 Automobiles**

<b>TOTAL FUEL CONSUMPTION</b>	14	0	*	18	*	0
<b>Indirect Uses-Boiler Fuel</b>	*	0	0	1	0	0
Conventional Boiler Use	*	0	0	1	0	0
CHP and/or Cogeneration Process	--	0	0	*	0	0
<b>Direct Uses-Total Process</b>	9	0	*	13	*	0
Process Heating	1	0	0	11	*	0
Process Cooling and Refrigeration	1	0	0	1	*	0
Machine Drive	7	0	*	*	*	0
Electro-Chemical Processes	*	--	--	--	--	--

Other Process Use	*	0	*	1	*	0
<b>Direct Uses-Total Nonprocess</b>	<b>5</b>	<b>0</b>	<b>*</b>	<b>5</b>	<b>*</b>	<b>0</b>
Facility HVAC (f)	3	0	0	4	*	0
Facility Lighting	1	--	--	--	--	--
Other Facility Support	*	0	0	*	*	0
Onsite Transportation	*	--	*	0	*	--
Conventional Electricity Generation	--	0	*	*	*	0
Other Nonprocess Use	*	0	*	0	*	0
<b>End Use Not Reported</b>	<b>*</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>0</b>

**336112 Light Trucks and Utility Vehicles**

<b>TOTAL FUEL CONSUMPTION</b>	<b>15</b>	<b>0</b>	<b>*</b>	<b>25</b>	<b>*</b>	<b>0</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>*</b>	<b>0</b>
Conventional Boiler Use	1	0	0	2	*	0
CHP and/or Cogeneration Process	--	0	0	3	0	0
<b>Direct Uses-Total Process</b>	<b>10</b>	<b>0</b>	<b>*</b>	<b>14</b>	<b>*</b>	<b>0</b>
Process Heating	1	0	0	13	*	0
Process Cooling and Refrigeration	1	0	0	*	0	0
Machine Drive	7	0	*	*	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	1	0	0	1	*	0
<b>Direct Uses-Total Nonprocess</b>	<b>4</b>	<b>0</b>	<b>*</b>	<b>7</b>	<b>*</b>	<b>0</b>
Facility HVAC (f)	2	0	0	6	*	0
Facility Lighting	2	--	--	--	--	--
Other Facility Support	*	0	*	*	0	0
Onsite Transportation	*	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	0	0
Other Nonprocess Use	*	0	*	0	0	0
<b>End Use Not Reported</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>0</b>

**3364 Aerospace Products**

<b>TOTAL FUEL CONSUMPTION</b>	<b>34</b>	<b>*</b>	<b>*</b>	<b>27</b>	<b>*</b>	<b>0</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>*</b>	<b>*</b>	<b>*</b>	<b>12</b>	<b>*</b>	<b>0</b>
Conventional Boiler Use	*	0	*	8	*	0
CHP and/or Cogeneration Process	--	*	*	5	*	0
<b>Direct Uses-Total Process</b>	<b>16</b>	<b>0</b>	<b>*</b>	<b>5</b>	<b>*</b>	<b>0</b>
Process Heating	4	0	0	4	*	0

Process Cooling and Refrigeration	3	0	0	*	*	0
Machine Drive	8	0	*	1	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	2	0	*	*	*	0
<b>Direct Uses-Total Nonprocess</b>	<b>17</b>	<b>0</b>	<b>*</b>	<b>9</b>	<b>*</b>	<b>0</b>
Facility HVAC (f)	10	0	*	7	*	0
Facility Lighting	5	--	--	--	--	--
Other Facility Support	1	0	*	1	*	0
Onsite Transportation	*	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	*	0
Other Nonprocess Use	*	0	*	1	*	0
<b>End Use Not Reported</b>	<b>*</b>	<b>0</b>	<b>0</b>	<b>Q</b>	<b>*</b>	<b>0</b>

**336411 Aircraft**

<b>TOTAL FUEL CONSUMPTION</b>	<b>9</b>	<b>0</b>	<b>*</b>	<b>6</b>	<b>*</b>	<b>0</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>*</b>	<b>0</b>	<b>*</b>	<b>3</b>	<b>*</b>	<b>0</b>
Conventional Boiler Use	*	0	*	2	*	0
CHP and/or Cogeneration Process	--	0	0	*	0	0
<b>Direct Uses-Total Process</b>	<b>3</b>	<b>0</b>	<b>*</b>	<b>1</b>	<b>0</b>	<b>0</b>
Process Heating	1	0	0	1	0	0
Process Cooling and Refrigeration	*	0	0	*	0	0
Machine Drive	2	0	*	*	0	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	*	0	*	*	0	0
<b>Direct Uses-Total Nonprocess</b>	<b>6</b>	<b>0</b>	<b>*</b>	<b>2</b>	<b>*</b>	<b>0</b>
Facility HVAC (f)	4	0	0	2	*	0
Facility Lighting	2	--	--	--	--	--
Other Facility Support	*	0	*	*	0	0
Onsite Transportation	*	--	*	*	*	--
Conventional Electricity Generation	--	0	*	0	0	0
Other Nonprocess Use	*	0	*	0	0	0
<b>End Use Not Reported</b>	<b>*</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>0</b>

**337 FURNITURE AND RELATED PRODUCTS**

<b>TOTAL FUEL CONSUMPTION</b>	<b>16</b>	<b>0</b>	<b>*</b>	<b>15</b>	<b>1</b>	<b>*</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>*</b>	<b>0</b>	<b>*</b>	<b>1</b>	<b>*</b>	<b>0</b>
Conventional Boiler Use	*	0	0	*	*	0

CHP and/or Cogeneration Process	--	0	*	Q	*	0
<b>Direct Uses-Total Process</b>	<b>10</b>	<b>0</b>	<b>*</b>	<b>7</b>	<b>*</b>	<b>*</b>
Process Heating	1	0	0	6	*	*
Process Cooling and Refrigeration	*	0	0	*	*	0
Machine Drive	9	0	*	Q	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	*	0	0	*	*	0
<b>Direct Uses-Total Nonprocess</b>	<b>6</b>	<b>0</b>	<b>*</b>	<b>8</b>	<b>1</b>	<b>*</b>
Facility HVAC (f)	3	0	*	7	*	*
Facility Lighting	2	--	--	--	--	--
Other Facility Support	1	0	0	Q	*	0
Onsite Transportation	*	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	*	0
Other Nonprocess Use	*	0	*	0	*	0
<b>End Use Not Reported</b>	<b>Q</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>0</b>
<b>339 MISCELLANEOUS</b>						
<b>TOTAL FUEL CONSUMPTION</b>	<b>33</b>	<b>0</b>	<b>*</b>	<b>25</b>	<b>1</b>	<b>*</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>*</b>	<b>0</b>	<b>*</b>	<b>3</b>	<b>Q</b>	<b>0</b>
Conventional Boiler Use	*	0	0	1	Q	0
CHP and/or Cogeneration Process	--	0	*	2	*	0
<b>Direct Uses-Total Process</b>	<b>17</b>	<b>0</b>	<b>*</b>	<b>13</b>	<b>*</b>	<b>*</b>
Process Heating	2	0	*	10	*	*
Process Cooling and Refrigeration	2	0	0	*	0	0
Machine Drive	11	0	*	1	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	Q	0	0	Q	0	0
<b>Direct Uses-Total Nonprocess</b>	<b>16</b>	<b>0</b>	<b>*</b>	<b>10</b>	<b>1</b>	<b>0</b>
Facility HVAC (f)	8	0	*	8	*	0
Facility Lighting	4	--	--	--	--	--
Other Facility Support	1	0	*	*	*	0
Onsite Transportation	*	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	0	0
Other Nonprocess Use	Q	0	*	Q	*	0
<b>End Use Not Reported</b>	<b>*</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>0</b>

(a) The Bureau of the Census classifies establishments using the 2017 North American Industry Classification System (NAICS).

(b) *Net Demand for Electricity* is the sum of purchases, transfers in, and total onsite electricity generation, minus sales and transfers offsite. It is the total amount of electricity used by establishments. *Net Demand for Electricity* is not directly comparable with *Net Electricity*, which specifically excludes electricity generated onsite by combustible energy sources.

(c) *Distillate Fuel Oil* includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.

(d) *Natural Gas* includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as independent gas producers, gas brokers, marketers, and any marketing subsidiaries of utilities.

(e) Hydrocarbon Gas Liquids (*HGL*) include ethane, ethylene, propane, propylene, normal butane, butylene, ethane-propane mixtures, propane-butane mixtures, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw Natural Gas Liquids (NGL).

(f) Facility Heating, Ventilation, and Air Conditioning (*Facility HVAC*) excludes steam and hot water.

\* Estimate less than 0.5.

D=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error (RSE) is greater than 50 percent.

NA=Not available.

-- Estimation is not applicable.

S=Negative value.

Notes: Totals may not equal sum of components because of independent rounding. The estimates presented in this table are for the total consumption of energy (formerly total inputs of energy) for the production of heat, power, and electricity generation, regardless of where the energy was produced. Specifically, the estimates include the quantities of energy that were originally produced offsite and purchased by or transferred to the establishment, plus those that were produced onsite from other energy or input materials not classified as energy, or were extracted from captive (onsite) mines or wells. Allocations to specific end uses are made on the basis of reasonable approximations by respondents.

Source: U.S. Energy Information Administration, Office of Energy Demand and Integrated Statistics, Form EIA-846, *2018 Manufacturing Energy Consumption Survey*.

*The Census Bureau has reviewed this data product for unauthorized disclosure of confidential information and has approved the disclosure avoidance practices applied (Approval ID: CBDRB-FY20-260).*

Released: February 2021  
 Next MECS will be fielded in 2022.

**RSE Table 5.4 Relative Standard Errors for Table 5.4;**

**Unit: Percents.**

NAICS Code(a)	End Use	Net Demand for Electricity(b)	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel(c)	Natural Gas(d)	HGL (excluding natural gasoline)(e)	Coal (excluding Coal Coke and Breeze)
<b>Total United States</b>							
<b>311 - 339</b>	<b>ALL MANUFACTURING INDUSTRIES</b>						
	<b>TOTAL FUEL CONSUMPTION</b>	1.6	2.5	7.9	0.9	3.9	3.3
	<b>Indirect Uses-Boiler Fuel</b>	3.2	0.7	7.0	1.0	9.2	0.2
	Conventional Boiler Use	3.2	1.3	17.8	1.7	12.1	1.8
	CHP and/or Cogeneration Process	--	0.2	4.2	1.2	14.0	0.1
	<b>Direct Uses-Total Process</b>	1.3	6.3	16.3	1.3	D	5.9
	Process Heating	2.4	6.3	29.1	1.4	6.7	0.2
	Process Cooling and Refrigeration	4.1	0.0	8.5	4.8	20.0	4.9
	Machine Drive	1.5	72.5	14.9	3.4	40.8	0.0
	Electro-Chemical Processes	1.7	--	--	--	--	--
	Other Process Use	4.7	90.0	46.3	3.3	D	31.0
	<b>Direct Uses-Total Nonprocess</b>	3.7	30.1	6.5	3.3	D	17.7
	Facility HVAC (f)	3.8	7.4	29.2	3.9	D	27.6
	Facility Lighting	5.1	--	--	--	--	--
	Other Facility Support	2.7	X	49.1	6.2	19.2	0.0
	Onsite Transportation	4.8	--	6.3	13.4	4.6	--
	Conventional Electricity Generation	--	0.0	23.8	1.3	46.3	0.0
	Other Nonprocess Use	18.8	61.2	24.7	12.1	15.0	X
	<b>End Use Not Reported</b>	13.1	0.0	12.7	8.5	21.8	X
<b>311</b>	<b>FOOD</b>						
	<b>TOTAL FUEL CONSUMPTION</b>	11.0	2.2	29.3	4.5	18.4	0.0
	<b>Indirect Uses-Boiler Fuel</b>	8.0	3.1	24.3	4.0	16.2	0.0
	Conventional Boiler Use	8.0	5.7	40.0	6.2	20.1	0.0

CHP and/or Cogeneration Process	--	0.0	11.1	5.3	25.1	0.0
<b>Direct Uses-Total Process</b>	<b>8.3</b>	<b>1.9</b>	<b>57.3</b>	<b>7.7</b>	<b>45.8</b>	<b>0.0</b>
Process Heating	11.1	2.2	84.4	8.6	54.6	0.0
Process Cooling and Refrigeration	10.3	0.0	9.0	6.8	11.7	X
Machine Drive	9.2	0.0	19.0	28.4	53.2	X
Electro-Chemical Processes	28.3	--	--	--	--	--
Other Process Use	13.4	X	64.3	25.0	58.0	X
<b>Direct Uses-Total Nonprocess</b>	<b>23.4</b>	<b>0.3</b>	<b>17.5</b>	<b>11.4</b>	<b>13.9</b>	<b>0.0</b>
Facility HVAC (f)	25.1	0.3	69.7	15.6	29.0	X
Facility Lighting	29.8	--	--	--	--	--
Other Facility Support	6.5	X	77.6	12.0	47.4	X
Onsite Transportation	6.7	--	9.3	11.3	9.7	--
Conventional Electricity Generation	--	X	31.1	8.6	87.8	0.0
Other Nonprocess Use	14.3	X	28.9	3.7	69.2	X
<b>End Use Not Reported</b>	<b>31.3</b>	<b>X</b>	<b>X</b>	<b>19.4</b>	<b>30.0</b>	<b>X</b>

**3112 Grain and Oilseed Milling**

<b>TOTAL FUEL CONSUMPTION</b>	<b>1.7</b>	<b>15.8</b>	<b>15.6</b>	<b>3.6</b>	<b>15.0</b>	<b>0.0</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>2.3</b>	<b>X</b>	<b>74.0</b>	<b>2.7</b>	<b>52.9</b>	<b>0.0</b>
Conventional Boiler Use	2.3	X	0.0	6.3	X	0.0
CHP and/or Cogeneration Process	--	X	82.2	2.5	52.9	0.0
<b>Direct Uses-Total Process</b>	<b>1.8</b>	<b>15.8</b>	<b>0.1</b>	<b>6.2</b>	<b>22.7</b>	<b>X</b>
Process Heating	26.2	15.8	0.0	7.2	26.2	X
Process Cooling and Refrigeration	1.1	X	X	0.3	0.0	X
Machine Drive	1.9	X	0.1	8.2	25.0	X
Electro-Chemical Processes	1.2	--	--	--	--	--
Other Process Use	1.5	X	0.0	5.0	0.0	X
<b>Direct Uses-Total Nonprocess</b>	<b>4.2</b>	<b>48.4</b>	<b>5.7</b>	<b>17.2</b>	<b>9.4</b>	<b>X</b>
Facility HVAC (f)	4.7	48.4	53.7	20.0	22.8	X
Facility Lighting	4.2	--	--	--	--	--
Other Facility Support	4.9	X	0.0	12.6	30.6	X
Onsite Transportation	15.1	--	2.5	2.6	5.9	--
Conventional Electricity Generation	--	X	0.1	0.0	0.0	X
Other Nonprocess Use	27.3	X	0.2	53.7	0.0	X
<b>End Use Not Reported</b>	<b>53.0</b>	<b>X</b>	<b>X</b>	<b>83.9</b>	<b>0.0</b>	<b>X</b>

**311221 Wet Corn Milling**



<b>TOTAL FUEL CONSUMPTION</b>	0.0	X	0.0	0.0	0.0	0.0
<b>Indirect Uses-Boiler Fuel</b>	0.0	X	X	0.0	X	0.0
Conventional Boiler Use	0.0	X	X	0.0	X	0.0
CHP and/or Cogeneration Process	--	X	X	0.0	X	0.0
<b>Direct Uses-Total Process</b>	0.0	X	0.0	0.0	0.0	X
Process Heating	0.0	X	X	0.0	0.0	X
Process Cooling and Refrigeration	0.0	X	X	0.0	X	X
Machine Drive	0.0	X	0.0	X	0.0	X
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	X	X	0.0	0.0	X	X
<b>Direct Uses-Total Nonprocess</b>	0.0	X	0.0	0.0	0.0	X
Facility HVAC (f)	0.0	X	0.0	0.0	0.0	X
Facility Lighting	0.0	--	--	--	--	--
Other Facility Support	0.0	X	0.0	0.0	0.0	X
Onsite Transportation	0.0	--	0.0	0.0	0.0	--
Conventional Electricity Generation	--	X	0.0	0.0	X	X
Other Nonprocess Use	X	X	0.0	X	0.0	X
<b>End Use Not Reported</b>	X	X	X	X	X	X

**31131 Sugar**

<b>TOTAL FUEL CONSUMPTION</b>	0.0	0.0	0.0	0.0	0.0	0.0
<b>Indirect Uses-Boiler Fuel</b>	0.0	0.0	0.0	0.0	X	0.0
Conventional Boiler Use	0.0	0.0	0.0	0.0	X	0.0
CHP and/or Cogeneration Process	--	0.0	0.0	0.0	X	0.0
<b>Direct Uses-Total Process</b>	0.0	X	0.0	0.0	0.0	0.0
Process Heating	0.0	X	X	0.0	X	0.0
Process Cooling and Refrigeration	0.0	X	X	0.0	X	X
Machine Drive	0.0	X	0.0	0.0	X	X
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	0.0	X	0.0	0.0	0.0	X
<b>Direct Uses-Total Nonprocess</b>	0.0	X	0.0	0.0	0.0	0.0
Facility HVAC (f)	0.0	X	X	0.0	0.0	X
Facility Lighting	0.0	--	--	--	--	--
Other Facility Support	0.0	X	0.0	0.0	0.0	X
Onsite Transportation	0.0	--	0.0	0.0	0.0	--
Conventional Electricity Generation	--	X	0.0	X	X	0.0
Other Nonprocess Use	0.0	X	0.0	X	X	X
<b>End Use Not Reported</b>	X	X	X	X	X	X

**3114 Fruit and Vegetable Preserving and Specialty Foods**

<b>TOTAL FUEL CONSUMPTION</b>	5.8	0.0	6.9	3.2	5.8	X
<b>Indirect Uses-Boiler Fuel</b>	5.1	X	3.9	4.1	7.5	X
Conventional Boiler Use	5.1	X	X	3.5	0.1	X
CHP and/or Cogeneration Process	--	X	3.9	5.7	13.5	X
<b>Direct Uses-Total Process</b>	6.8	0.0	15.8	6.3	22.4	X
Process Heating	13.2	0.0	60.4	6.8	30.9	X
Process Cooling and Refrigeration	9.4	X	12.1	7.5	19.2	X
Machine Drive	6.1	X	18.1	4.3	15.2	X
Electro-Chemical Processes	14.2	--	--	--	--	--
Other Process Use	3.2	X	74.6	0.0	70.7	X
<b>Direct Uses-Total Nonprocess</b>	4.4	0.0	8.1	4.1	8.6	X
Facility HVAC (f)	4.9	0.0	64.0	5.2	11.1	X
Facility Lighting	6.4	--	--	--	--	--
Other Facility Support	3.4	X	0.0	5.4	17.0	X
Onsite Transportation	5.8	--	3.1	55.2	9.6	--
Conventional Electricity Generation	--	X	64.2	3.9	41.6	X
Other Nonprocess Use	18.5	X	41.1	0.8	0.0	X
<b>End Use Not Reported</b>	35.5	X	X	17.7	64.3	X

**3115 Dairy Products**

<b>TOTAL FUEL CONSUMPTION</b>	3.2	28.5	32.4	2.3	12.9	X
<b>Indirect Uses-Boiler Fuel</b>	4.9	67.2	0.4	2.6	22.5	X
Conventional Boiler Use	4.9	67.2	0.1	4.9	5.1	X
CHP and/or Cogeneration Process	--	X	1.2	3.2	53.5	X
<b>Direct Uses-Total Process</b>	3.8	0.0	41.1	4.2	6.1	X
Process Heating	40.4	X	82.9	4.0	7.2	X
Process Cooling and Refrigeration	3.1	0.0	34.7	6.9	11.4	X
Machine Drive	2.5	0.0	74.4	19.1	0.0	X
Electro-Chemical Processes	32.6	--	--	--	--	--
Other Process Use	7.0	X	5.1	27.4	X	X
<b>Direct Uses-Total Nonprocess</b>	3.7	0.0	42.1	4.9	16.3	X
Facility HVAC (f)	3.7	0.0	54.4	5.0	20.6	X
Facility Lighting	6.7	--	--	--	--	--
Other Facility Support	3.7	X	2.8	8.3	68.9	X
Onsite Transportation	4.8	--	27.4	22.3	17.7	--
Conventional Electricity Generation	--	X	20.7	75.7	X	X

Other Nonprocess Use	12.9	X	63.6	0.9	0.3	X
<b>End Use Not Reported</b>	<b>24.4</b>	<b>X</b>	<b>X</b>	<b>24.3</b>	<b>64.6</b>	<b>X</b>

**3116 Animal Slaughtering and Processing**

<b>TOTAL FUEL CONSUMPTION</b>	<b>31.0</b>	<b>0.0</b>	<b>13.8</b>	<b>6.2</b>	<b>22.0</b>	<b>X</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>6.5</b>	<b>0.0</b>	<b>12.8</b>	<b>9.6</b>	<b>28.8</b>	<b>X</b>
Conventional Boiler Use	6.5	0.0	16.9	16.9	36.5	X
CHP and/or Cogeneration Process	--	X	19.5	11.2	39.1	X
Direct Uses-Total Process	22.7	X	50.3	4.8	30.4	X
<b>Process Heating</b>	<b>9.0</b>	<b>X</b>	<b>97.1</b>	<b>5.0</b>	<b>36.1</b>	<b>X</b>
Process Cooling and Refrigeration	21.1	X	0.4	6.8	96.4	X
Machine Drive	27.2	X	37.1	6.9	34.8	X
Electro-Chemical Processes	26.7	--	--	--	--	--
Other Process Use	11.9	X	62.3	19.4	71.0	X
Direct Uses-Total Nonprocess	52.6	X	7.0	2.9	39.8	X
<b>Facility HVAC (f)</b>	<b>55.6</b>	<b>X</b>	<b>6.7</b>	<b>4.6</b>	<b>50.4</b>	<b>X</b>
Facility Lighting	58.0	--	--	--	--	--
Other Facility Support	4.9	X	39.4	3.0	43.2	X
Onsite Transportation	6.8	--	6.8	26.1	7.3	--
Conventional Electricity Generation	--	X	58.5	42.1	96.4	X
Other Nonprocess Use	14.7	X	15.7	0.0	0.0	X
<b>End Use Not Reported</b>	<b>30.8</b>	<b>X</b>	<b>X</b>	<b>16.3</b>	<b>50.0</b>	<b>X</b>

**312 BEVERAGE AND TOBACCO PRODUCTS**

<b>TOTAL FUEL CONSUMPTION</b>	<b>15.3</b>	<b>0.0</b>	<b>29.3</b>	<b>8.5</b>	<b>11.3</b>	<b>0.0</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>12.8</b>	<b>0.0</b>	<b>0.1</b>	<b>11.6</b>	<b>20.5</b>	<b>0.0</b>
Conventional Boiler Use	12.8	0.0	0.0	22.7	27.4	0.0
CHP and/or Cogeneration Process	--	0.0	0.1	3.8	29.6	0.0
Direct Uses-Total Process	17.3	X	3.9	5.7	32.5	0.0
Process Heating	13.1	X	0.6	6.3	50.4	0.0
Process Cooling and Refrigeration	12.1	X	8.6	24.4	78.9	X
Machine Drive	21.7	X	30.6	8.0	22.6	X
Electro-Chemical Processes	12.6	--	--	--	--	--
Other Process Use	6.9	X	0.1	20.4	27.7	X
Direct Uses-Total Nonprocess	10.8	0.0	37.9	9.9	10.5	0.0
Facility HVAC (f)	14.6	X	71.2	10.7	18.9	0.0
Facility Lighting	11.0	--	--	--	--	--

Other Facility Support	7.7	X	X	18.0	24.9	X
Onsite Transportation	8.0	--	15.0	6.2	10.2	--
Conventional Electricity Generation	--	X	96.6	19.2	77.0	X
Other Nonprocess Use	26.2	0.0	82.9	18.0	92.2	X
<b>End Use Not Reported</b>	<b>22.7</b>	<b>X</b>	<b>X</b>	<b>65.7</b>	<b>47.4</b>	<b>X</b>

**3121 Beverages**

<b>TOTAL FUEL CONSUMPTION</b>	<b>16.1</b>	<b>0.0</b>	<b>31.3</b>	<b>9.2</b>	<b>12.9</b>	<b>0.0</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>13.2</b>	<b>0.0</b>	<b>0.1</b>	<b>12.9</b>	<b>27.8</b>	<b>0.0</b>
Conventional Boiler Use	13.2	X	0.0	25.7	68.3	0.0
CHP and/or Cogeneration Process	--	0.0	0.1	4.1	29.8	0.0
<b>Direct Uses-Total Process</b>	<b>18.1</b>	<b>X</b>	<b>3.9</b>	<b>5.9</b>	<b>38.8</b>	<b>0.0</b>
Process Heating	13.4	X	0.6	6.5	62.1	0.0
Process Cooling and Refrigeration	12.2	X	8.6	24.4	78.9	X
Machine Drive	23.0	X	30.6	9.7	30.0	X
Electro-Chemical Processes	12.7	--	--	--	--	--
Other Process Use	6.9	X	0.1	20.6	27.7	X
<b>Direct Uses-Total Nonprocess</b>	<b>12.0</b>	<b>0.0</b>	<b>38.5</b>	<b>10.5</b>	<b>11.0</b>	<b>0.0</b>
Facility HVAC (f)	16.5	X	71.6	11.1	19.8	0.0
Facility Lighting	12.1	--	--	--	--	--
Other Facility Support	8.8	X	X	18.6	25.2	X
Onsite Transportation	8.3	--	15.2	13.6	10.7	--
Conventional Electricity Generation	--	X	96.6	19.2	77.0	X
Other Nonprocess Use	26.7	0.0	86.3	23.9	92.4	X
<b>End Use Not Reported</b>	<b>22.8</b>	<b>X</b>	<b>X</b>	<b>65.7</b>	<b>47.4</b>	<b>X</b>

**3122 Tobacco**

<b>TOTAL FUEL CONSUMPTION</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>X</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>X</b>
Conventional Boiler Use	0.0	0.0	0.0	0.0	0.0	X
CHP and/or Cogeneration Process	--	X	0.0	0.0	0.0	X
<b>Direct Uses-Total Process</b>	<b>0.0</b>	<b>X</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>X</b>
Process Heating	0.0	X	X	0.0	0.0	X
Process Cooling and Refrigeration	0.0	X	X	X	X	X
Machine Drive	0.0	X	0.0	0.0	0.0	X
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	0.0	X	X	0.0	X	X

<b>Direct Uses-Total Nonprocess</b>	0.0	X	0.0	0.0	0.0	X
Facility HVAC (f)	0.0	X	0.0	0.0	0.0	X
Facility Lighting	0.0	--	--	--	--	--
Other Facility Support	0.0	X	X	0.0	0.0	X
Onsite Transportation	0.0	--	0.0	0.0	0.0	--
Conventional Electricity Generation	--	X	0.0	X	X	X
Other Nonprocess Use	0.0	X	0.0	0.0	0.0	X
<b>End Use Not Reported</b>	0.0	X	X	X	X	X

**313 TEXTILE MILLS**

<b>TOTAL FUEL CONSUMPTION</b>	6.1	78.4	21.0	12.7	25.7	16.2
<b>Indirect Uses-Boiler Fuel</b>	35.2	78.4	54.0	19.1	46.5	16.2
Conventional Boiler Use	35.2	82.3	43.5	29.1	1.9	45.3
CHP and/or Cogeneration Process	--	88.0	63.3	22.5	76.0	0.0
<b>Direct Uses-Total Process</b>	6.2	X	13.9	12.6	7.1	X
Process Heating	12.0	X	0.0	13.3	4.7	X
Process Cooling and Refrigeration	17.6	X	X	80.3	X	X
Machine Drive	7.5	X	79.1	31.1	59.8	X
Electro-Chemical Processes	52.5	--	--	--	--	--
Other Process Use	40.1	X	X	51.7	36.9	X
<b>Direct Uses-Total Nonprocess</b>	8.3	X	13.1	12.8	16.5	X
Facility HVAC (f)	9.8	X	83.3	14.9	38.0	X
Facility Lighting	9.8	--	--	--	--	--
Other Facility Support	9.6	X	0.0	23.6	83.5	X
Onsite Transportation	14.3	--	72.2	42.1	13.1	--
Conventional Electricity Generation	--	X	X	68.1	X	X
Other Nonprocess Use	23.5	X	0.4	X	81.2	X
<b>End Use Not Reported</b>	73.1	X	X	X	68.9	X

**314 TEXTILE PRODUCT MILLS**

<b>TOTAL FUEL CONSUMPTION</b>	7.9	X	28.1	13.5	29.1	0.0
<b>Indirect Uses-Boiler Fuel</b>	15.7	X	33.6	18.2	0.0	X
Conventional Boiler Use	15.7	X	33.8	20.1	0.0	X
CHP and/or Cogeneration Process	--	X	0.0	6.2	X	X
<b>Direct Uses-Total Process</b>	8.5	X	2.0	16.8	58.4	0.0
Process Heating	23.5	X	0.0	15.0	44.6	0.0
Process Cooling and Refrigeration	18.9	X	X	X	X	X

Machine Drive	8.5	X	X	54.2	99.4	X
Electro-Chemical Processes	99.4	--	--	--	--	--
Other Process Use	91.3	X	39.7	X	X	X
<b>Direct Uses-Total Nonprocess</b>	13.2	X	53.2	32.2	34.9	X
Facility HVAC (f)	14.7	X	89.5	29.2	53.7	X
Facility Lighting	15.9	--	--	--	--	--
Other Facility Support	13.8	X	46.2	88.3	X	X
Onsite Transportation	28.4	--	48.7	X	39.0	--
Conventional Electricity Generation	--	X	X	X	X	X
Other Nonprocess Use	76.1	X	X	X	X	X
<b>End Use Not Reported</b>	82.0	X	X	86.6	88.6	X

**315 APPAREL**

<b>TOTAL FUEL CONSUMPTION</b>	11.3	X	51.8	14.3	42.3	99.4
<b>Indirect Uses-Boiler Fuel</b>	30.4	X	X	19.2	47.9	X
Conventional Boiler Use	30.4	X	X	32.3	98.2	X
CHP and/or Cogeneration Process	--	X	X	24.3	48.1	X
<b>Direct Uses-Total Process</b>	16.0	X	51.8	18.1	98.2	X
Process Heating	29.7	X	X	18.7	98.2	X
Process Cooling and Refrigeration	19.7	X	X	77.7	X	X
Machine Drive	19.0	X	X	62.6	X	X
Electro-Chemical Processes	15.2	--	--	--	--	--
Other Process Use	72.1	X	51.8	X	X	X
<b>Direct Uses-Total Nonprocess</b>	12.3	X	X	32.8	67.0	99.4
Facility HVAC (f)	12.6	X	X	34.3	66.8	99.4
Facility Lighting	15.9	--	--	--	--	--
Other Facility Support	20.3	X	X	56.9	X	X
Onsite Transportation	26.3	--	X	X	75.3	--
Conventional Electricity Generation	--	X	X	X	X	X
Other Nonprocess Use	18.2	X	X	99.4	75.1	X
<b>End Use Not Reported</b>	52.0	X	X	72.9	0.0	X

**316 LEATHER AND ALLIED PRODUCTS**

<b>TOTAL FUEL CONSUMPTION</b>	5.1	X	4.0	11.6	31.1	X
<b>Indirect Uses-Boiler Fuel</b>	21.2	X	2.5	12.8	55.8	X
Conventional Boiler Use	21.2	X	0.1	7.0	X	X
CHP and/or Cogeneration Process	--	X	19.0	22.7	55.8	X

<b>Direct Uses-Total Process</b>	4.6	X	X	17.4	52.2	X
Process Heating	11.2	X	X	16.2	55.1	X
Process Cooling and Refrigeration	33.9	X	X	52.4	X	X
Machine Drive	5.0	X	X	28.6	67.1	X
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	12.2	X	X	45.5	X	X
<b>Direct Uses-Total Nonprocess</b>	11.3	X	22.5	20.7	27.6	X
Facility HVAC (f)	17.5	X	45.5	22.0	42.0	X
Facility Lighting	8.0	--	--	--	--	--
Other Facility Support	10.3	X	X	13.3	62.0	X
Onsite Transportation	20.1	--	0.3	X	5.5	--
Conventional Electricity Generation	--	X	38.1	X	X	X
Other Nonprocess Use	94.5	X	0.0	82.8	X	X
<b>End Use Not Reported</b>	37.6	X	X	33.4	0.0	X

**321 WOOD PRODUCTS**

<b>TOTAL FUEL CONSUMPTION</b>	2.8	3.5	31.5	10.2	5.6	63.3
<b>Indirect Uses-Boiler Fuel</b>	11.1	86.3	14.2	2.8	3.8	80.4
Conventional Boiler Use	11.1	X	4.5	3.4	5.0	X
CHP and/or Cogeneration Process	--	86.3	24.6	3.5	3.5	80.4
<b>Direct Uses-Total Process</b>	2.9	0.0	71.3	16.8	12.9	97.1
Process Heating	10.3	0.0	28.3	19.9	14.4	97.1
Process Cooling and Refrigeration	5.7	X	93.2	64.3	97.1	X
Machine Drive	3.0	0.0	19.7	15.5	23.6	X
Electro-Chemical Processes	7.6	--	--	--	--	--
Other Process Use	23.2	X	94.3	0.9	38.0	X
<b>Direct Uses-Total Nonprocess</b>	5.4	1.3	4.8	8.8	4.7	95.1
Facility HVAC (f)	9.6	1.3	26.2	10.2	24.2	95.1
Facility Lighting	3.7	--	--	--	--	--
Other Facility Support	5.1	X	9.8	14.3	55.8	X
Onsite Transportation	9.9	--	4.0	82.1	4.8	--
Conventional Electricity Generation	--	X	44.5	50.8	37.5	X
Other Nonprocess Use	27.0	X	50.2	6.1	3.8	X
<b>End Use Not Reported</b>	10.5	X	X	42.8	53.5	X

**321113 Sawmills**

<b>TOTAL FUEL CONSUMPTION</b>	5.8	3.6	3.6	36.2	8.6	X
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<b>Indirect Uses-Boiler Fuel</b>	6.4	86.3	7.0	3.1	2.0	X
Conventional Boiler Use	6.4	X	0.8	4.5	0.0	X
CHP and/or Cogeneration Process	--	86.3	13.7	3.5	2.0	X
<b>Direct Uses-Total Process</b>	6.1	X	12.5	55.3	14.6	X
Process Heating	2.5	X	20.9	56.9	14.8	X
Process Cooling and Refrigeration	32.6	X	55.9	43.8	X	X
Machine Drive	6.6	X	15.8	2.1	34.5	X
Electro-Chemical Processes	6.4	--	--	--	--	--
Other Process Use	15.3	X	16.7	X	43.3	X
<b>Direct Uses-Total Nonprocess</b>	6.1	0.6	3.6	5.2	8.1	X
Facility HVAC (f)	9.8	0.6	7.4	5.0	6.4	X
Facility Lighting	5.6	--	--	--	--	--
Other Facility Support	5.9	X	17.5	23.9	7.8	X
Onsite Transportation	6.5	--	3.6	31.5	11.1	--
Conventional Electricity Generation	--	X	12.2	0.0	0.0	X
Other Nonprocess Use	23.5	X	22.2	X	45.3	X
<b>End Use Not Reported</b>	3.9	X	X	0.0	7.2	X

**3212 Veneer, Plywood, and Engineered Woods**

<b>TOTAL FUEL CONSUMPTION</b>	1.2	0.0	3.2	1.2	3.1	80.4
<b>Indirect Uses-Boiler Fuel</b>	1.3	X	29.6	2.7	0.1	80.4
Conventional Boiler Use	1.3	X	0.0	0.1	0.0	X
CHP and/or Cogeneration Process	--	X	66.4	3.6	2.4	80.4
<b>Direct Uses-Total Process</b>	1.2	0.0	7.8	1.0	4.9	X
Process Heating	1.1	0.0	0.0	1.4	0.0	X
Process Cooling and Refrigeration	2.5	X	X	0.0	X	X
Machine Drive	1.3	0.0	24.8	1.8	14.0	X
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	2.5	X	0.0	0.9	1.6	X
<b>Direct Uses-Total Nonprocess</b>	1.8	X	3.3	4.0	3.5	X
Facility HVAC (f)	3.2	X	36.5	6.4	28.7	X
Facility Lighting	1.6	--	--	--	--	--
Other Facility Support	2.2	X	4.1	8.0	47.9	X
Onsite Transportation	10.0	--	3.1	80.4	3.1	--
Conventional Electricity Generation	--	X	40.0	0.0	43.2	X
Other Nonprocess Use	4.5	X	32.4	0.0	0.0	X
<b>End Use Not Reported</b>	4.7	X	X	60.6	63.6	X

**321219 Reconstituted Wood Products**



<b>TOTAL FUEL CONSUMPTION</b>	1.5	0.0	2.7	0.9	5.9	X
<b>Indirect Uses-Boiler Fuel</b>	0.1	X	0.0	0.1	0.0	X
Conventional Boiler Use	0.1	X	0.0	0.0	0.0	X
CHP and/or Cogeneration Process	--	X	X	0.1	0.0	X
<b>Direct Uses-Total Process</b>	1.5	0.0	0.0	1.3	15.6	X
Process Heating	0.7	0.0	0.0	2.0	0.0	X
Process Cooling and Refrigeration	0.3	X	X	X	X	X
Machine Drive	1.6	0.0	0.0	0.0	23.4	X
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	4.3	X	X	0.2	X	X
<b>Direct Uses-Total Nonprocess</b>	1.5	X	2.7	1.2	7.4	X
Facility HVAC (f)	2.6	X	0.0	3.0	53.2	X
Facility Lighting	1.3	--	--	--	--	--
Other Facility Support	0.8	X	5.8	31.4	56.9	X
Onsite Transportation	14.4	--	2.8	X	5.9	--
Conventional Electricity Generation	--	X	0.0	0.0	X	X
Other Nonprocess Use	0.0	X	X	0.0	0.0	X
<b>End Use Not Reported</b>	X	X	X	X	X	X

**3219 Other Wood Products**

<b>TOTAL FUEL CONSUMPTION</b>	5.7	85.9	65.7	14.9	14.7	75.3
<b>Indirect Uses-Boiler Fuel</b>	32.1	X	66.9	16.5	67.3	X
Conventional Boiler Use	32.1	X	54.5	12.4	88.5	X
CHP and/or Cogeneration Process	--	X	80.7	23.4	63.1	X
<b>Direct Uses-Total Process</b>	5.4	X	86.8	26.1	24.5	97.1
Process Heating	26.2	X	61.0	27.7	27.5	97.1
Process Cooling and Refrigeration	10.6	X	97.1	82.7	97.1	X
Machine Drive	5.4	X	54.5	59.7	45.4	X
Electro-Chemical Processes	73.7	--	--	--	--	--
Other Process Use	44.2	X	96.3	14.3	65.7	X
<b>Direct Uses-Total Nonprocess</b>	11.7	85.9	20.2	13.8	14.5	95.1
Facility HVAC (f)	17.5	85.9	52.3	14.5	36.4	95.1
Facility Lighting	8.9	--	--	--	--	--
Other Facility Support	12.8	X	X	22.0	95.4	X
Onsite Transportation	16.2	--	18.0	83.5	16.1	--
Conventional Electricity Generation	--	X	83.5	69.6	X	X
Other Nonprocess Use	56.7	X	73.1	75.0	0.0	X

	<b>End Use Not Reported</b>	77.4	X	X	81.0	59.2	X
<b>322</b>	<b>PAPER</b>						
	<b>TOTAL FUEL CONSUMPTION</b>	0.8	0.0	0.7	1.0	11.1	0.0
	<b>Indirect Uses-Boiler Fuel</b>	1.0	0.0	1.3	1.2	27.4	0.0
	Conventional Boiler Use	1.0	0.0	25.4	4.9	0.0	0.0
	CHP and/or Cogeneration Process	--	0.0	0.1	1.1	45.7	0.0
	<b>Direct Uses-Total Process</b>	0.7	0.0	0.0	2.2	24.2	0.0
	Process Heating	2.8	0.0	0.0	2.3	19.7	X
	Process Cooling and Refrigeration	7.2	X	X	11.8	95.9	X
	Machine Drive	0.7	X	0.0	16.9	85.2	0.0
	Electro-Chemical Processes	8.2	--	--	--	--	--
	Other Process Use	6.7	X	0.0	1.5	0.0	0.0
	<b>Direct Uses-Total Nonprocess</b>	2.3	0.0	0.6	6.4	14.3	X
	Facility HVAC (f)	2.8	0.0	0.0	8.9	79.0	X
	Facility Lighting	2.2	--	--	--	--	--
	Other Facility Support	4.7	X	71.8	8.8	22.4	X
	Onsite Transportation	11.8	--	0.6	0.1	10.3	--
	Conventional Electricity Generation	--	0.0	0.0	0.2	98.3	X
	Other Nonprocess Use	12.8	X	0.1	85.0	20.9	X
	<b>End Use Not Reported</b>	68.4	0.0	0.0	98.9	32.0	X
<b>322110</b>	<b>Pulp Mills</b>						
	<b>TOTAL FUEL CONSUMPTION</b>	0.0	0.0	0.0	0.0	0.0	0.0
	<b>Indirect Uses-Boiler Fuel</b>	0.0	0.0	0.0	0.0	0.0	0.0
	Conventional Boiler Use	0.0	X	0.0	0.0	X	X
	CHP and/or Cogeneration Process	--	0.0	0.0	0.0	0.0	0.0
	<b>Direct Uses-Total Process</b>	0.0	0.0	0.0	0.0	X	X
	Process Heating	0.0	0.0	0.0	0.0	X	X
	Process Cooling and Refrigeration	0.0	X	X	X	X	X
	Machine Drive	0.0	X	0.0	0.0	X	X
	Electro-Chemical Processes	0.0	--	--	--	--	--
	Other Process Use	0.0	X	X	X	X	X
	<b>Direct Uses-Total Nonprocess</b>	0.0	0.0	0.0	0.0	0.0	X
	Facility HVAC (f)	0.0	X	X	0.0	0.0	X
	Facility Lighting	0.0	--	--	--	--	--
	Other Facility Support	0.0	X	X	0.0	X	X

Onsite Transportation	0.0	--	0.0	X	0.0	--
Conventional Electricity Generation	--	0.0	0.0	0.0	X	X
Other Nonprocess Use	X	X	X	X	X	X
<b>End Use Not Reported</b>	X	X	0.0	X	X	X

**322121 Paper Mills, except Newsprint**

<b>TOTAL FUEL CONSUMPTION</b>	0.0	0.0	0.0	0.0	0.0	0.0
<b>Indirect Uses-Boiler Fuel</b>	0.0	0.0	0.0	0.0	0.0	0.0
Conventional Boiler Use	0.0	0.0	0.0	0.0	0.0	0.0
CHP and/or Cogeneration Process	--	0.0	0.0	0.0	0.0	0.0
<b>Direct Uses-Total Process</b>	0.0	0.0	0.0	0.0	0.0	0.0
Process Heating	0.0	0.0	0.0	0.0	0.0	X
Process Cooling and Refrigeration	0.0	X	X	X	X	X
Machine Drive	0.0	X	0.0	0.0	0.0	0.0
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	0.0	X	0.0	0.0	X	0.0
<b>Direct Uses-Total Nonprocess</b>	0.0	0.0	0.0	0.0	0.0	X
Facility HVAC (f)	0.0	0.0	0.0	0.0	0.0	X
Facility Lighting	0.0	--	--	--	--	--
Other Facility Support	0.0	X	0.0	0.0	0.0	X
Onsite Transportation	0.0	--	0.0	0.0	0.0	--
Conventional Electricity Generation	--	X	0.0	0.0	X	X
Other Nonprocess Use	X	X	0.0	X	0.0	X
<b>End Use Not Reported</b>	X	X	0.0	X	0.0	X

**322122 Newsprint Mills**

<b>TOTAL FUEL CONSUMPTION</b>	0.0	X	0.0	0.0	0.0	X
<b>Indirect Uses-Boiler Fuel</b>	0.0	X	0.0	0.0	0.0	X
Conventional Boiler Use	0.0	X	X	0.0	0.0	X
CHP and/or Cogeneration Process	--	X	0.0	0.0	X	X
<b>Direct Uses-Total Process</b>	0.0	X	X	0.0	X	X
Process Heating	0.0	X	X	0.0	X	X
Process Cooling and Refrigeration	0.0	X	X	X	X	X
Machine Drive	0.0	X	X	X	X	X
Electro-Chemical Processes	X	--	--	--	--	--
Other Process Use	X	X	X	X	X	X
<b>Direct Uses-Total Nonprocess</b>	0.0	X	0.0	0.0	0.0	X

Facility HVAC (f)	0.0	X	X	0.0	X	X
Facility Lighting	0.0	--	--	--	--	--
Other Facility Support	X	X	X	0.0	X	X
Onsite Transportation	X	--	0.0	X	0.0	--
Conventional Electricity Generation	--	X	X	X	X	X
Other Nonprocess Use	X	X	X	X	X	X
<b>End Use Not Reported</b>	X	X	X	X	X	X

**322130 Paperboard Mills**

<b>TOTAL FUEL CONSUMPTION</b>	0.0	0.0	0.0	0.0	0.0	0.0
<b>Indirect Uses-Boiler Fuel</b>	0.0	0.0	0.0	0.0	0.0	0.0
Conventional Boiler Use	0.0	0.0	0.0	0.0	X	0.0
CHP and/or Cogeneration Process	--	0.0	0.0	0.0	0.0	0.0
<b>Direct Uses-Total Process</b>	0.0	0.0	0.0	0.0	0.0	X
Process Heating	0.0	0.0	0.0	0.0	0.0	X
Process Cooling and Refrigeration	0.0	X	X	0.0	X	X
Machine Drive	0.0	X	0.0	0.0	0.0	X
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	0.0	X	0.0	0.0	0.0	X
<b>Direct Uses-Total Nonprocess</b>	0.0	X	0.0	0.0	0.0	X
Facility HVAC (f)	0.0	X	0.0	0.0	0.0	X
Facility Lighting	0.0	--	--	--	--	--
Other Facility Support	0.0	X	X	0.0	0.0	X
Onsite Transportation	0.0	--	0.0	0.0	0.0	--
Conventional Electricity Generation	--	X	X	0.0	X	X
Other Nonprocess Use	0.0	X	0.0	X	0.0	X
<b>End Use Not Reported</b>	X	0.0	0.0	X	0.0	X

**323 PRINTING AND RELATED SUPPORT**

<b>TOTAL FUEL CONSUMPTION</b>	7.8	50.9	43.0	10.0	21.4	X
<b>Indirect Uses-Boiler Fuel</b>	31.0	X	57.8	18.8	0.0	X
Conventional Boiler Use	31.0	X	57.8	16.7	0.0	X
CHP and/or Cogeneration Process	--	X	X	60.9	X	X
<b>Direct Uses-Total Process</b>	8.5	50.9	61.6	14.8	50.1	X
Process Heating	17.7	X	99.0	14.5	67.0	X
Process Cooling and Refrigeration	15.0	X	X	70.5	X	X
Machine Drive	8.6	X	76.5	41.4	70.0	X

Electro-Chemical Processes	86.8	--	--	--	--	--
Other Process Use	34.9	50.9	X	82.9	X	X
<b>Direct Uses-Total Nonprocess</b>	9.3	50.9	52.7	11.7	17.4	X
Facility HVAC (f)	10.3	50.9	66.1	12.2	59.8	X
Facility Lighting	10.8	--	--	--	--	--
Other Facility Support	14.6	X	99.0	26.0	96.0	X
Onsite Transportation	20.2	--	18.6	52.8	16.5	--
Conventional Electricity Generation	--	X	38.7	99.0	X	X
Other Nonprocess Use	51.1	X	55.9	57.8	99.0	X
<b>End Use Not Reported</b>	43.5	X	94.9	41.3	98.2	X

**324 PETROLEUM AND COAL PRODUCTS**

<b>TOTAL FUEL CONSUMPTION</b>	0.4	9.1	8.9	0.3	5.6	19.9
<b>Indirect Uses-Boiler Fuel</b>	0.8	0.0	7.3	0.3	2.6	X
Conventional Boiler Use	0.8	0.0	0.8	0.1	1.2	X
CHP and/or Cogeneration Process	--	X	9.9	0.5	6.3	X
<b>Direct Uses-Total Process</b>	0.4	9.7	6.8	0.4	6.6	19.9
Process Heating	0.3	9.7	10.5	0.4	2.8	19.9
Process Cooling and Refrigeration	0.5	X	0.0	11.6	0.0	X
Machine Drive	0.5	X	8.9	2.6	85.8	X
Electro-Chemical Processes	0.2	--	--	--	--	--
Other Process Use	0.4	X	23.8	0.3	5.0	X
<b>Direct Uses-Total Nonprocess</b>	0.2	X	23.2	0.4	6.4	X
Facility HVAC (f)	0.3	X	23.2	0.7	17.8	X
Facility Lighting	0.3	--	--	--	--	--
Other Facility Support	0.2	X	6.4	1.0	0.0	X
Onsite Transportation	1.7	--	17.6	6.3	7.7	--
Conventional Electricity Generation	--	X	0.0	0.1	0.0	X
Other Nonprocess Use	2.2	X	50.0	9.5	21.1	X
<b>End Use Not Reported</b>	17.0	X	24.0	0.0	13.7	X

**324110 Petroleum Refineries**

<b>TOTAL FUEL CONSUMPTION</b>	0.0	0.0	0.0	0.0	0.0	X
<b>Indirect Uses-Boiler Fuel</b>	0.0	0.0	0.0	0.0	0.0	X
Conventional Boiler Use	0.0	0.0	0.0	0.0	0.0	X
CHP and/or Cogeneration Process	--	X	0.0	0.0	0.0	X
<b>Direct Uses-Total Process</b>	0.0	0.0	0.0	0.0	0.0	X

Process Heating	0.0	0.0	0.0	0.0	0.0	X
Process Cooling and Refrigeration	0.0	X	X	0.0	0.0	X
Machine Drive	0.0	X	0.0	0.0	0.0	X
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	0.0	X	0.0	0.0	0.0	X
<b>Direct Uses-Total Nonprocess</b>	0.0	X	0.0	0.0	0.0	X
Facility HVAC (f)	0.0	X	0.0	0.0	0.0	X
Facility Lighting	0.0	--	--	--	--	--
Other Facility Support	0.0	X	X	0.0	0.0	X
Onsite Transportation	0.0	--	0.0	X	0.0	--
Conventional Electricity Generation	--	X	0.0	0.0	0.0	X
Other Nonprocess Use	0.0	X	0.0	0.0	0.0	X
<b>End Use Not Reported</b>	0.0	X	0.0	0.0	0.0	X

**324121 Asphalt Paving Mixture and Block**

<b>TOTAL FUEL CONSUMPTION</b>	8.6	30.1	15.2	3.9	36.8	19.9
<b>Indirect Uses-Boiler Fuel</b>	2.5	X	48.8	5.2	73.8	X
Conventional Boiler Use	2.5	X	9.1	10.3	88.6	X
CHP and/or Cogeneration Process	--	X	57.4	6.1	93.6	X
<b>Direct Uses-Total Process</b>	10.7	30.1	10.1	4.5	38.7	19.9
Process Heating	8.8	30.1	17.8	5.1	26.2	19.9
Process Cooling and Refrigeration	30.0	X	0.0	49.6	X	X
Machine Drive	12.4	X	11.9	9.0	87.5	X
Electro-Chemical Processes	55.3	--	--	--	--	--
Other Process Use	3.6	X	3.3	3.1	0.0	X
<b>Direct Uses-Total Nonprocess</b>	3.6	X	45.4	6.8	20.8	X
Facility HVAC (f)	3.4	X	65.9	4.6	54.2	X
Facility Lighting	6.5	--	--	--	--	--
Other Facility Support	4.1	X	52.7	2.7	0.0	X
Onsite Transportation	12.9	--	37.5	69.2	19.1	--
Conventional Electricity Generation	--	X	0.0	X	X	X
Other Nonprocess Use	6.8	X	66.5	26.9	0.0	X
<b>End Use Not Reported</b>	37.6	X	X	0.0	55.4	X

**324122 Asphalt Shingle and Coating Materials**

<b>TOTAL FUEL CONSUMPTION</b>	1.7	X	0.9	1.1	2.6	X
<b>Indirect Uses-Boiler Fuel</b>	8.6	X	0.0	0.7	1.1	X

Conventional Boiler Use	8.6	X	0.0	0.2	0.0	X
CHP and/or Cogeneration Process	--	X	0.0	0.9	1.3	X
<b>Direct Uses-Total Process</b>	<b>1.9</b>	<b>X</b>	<b>0.0</b>	<b>1.5</b>	<b>0.3</b>	<b>X</b>
Process Heating	2.4	X	0.0	1.7	1.4	X
Process Cooling and Refrigeration	7.6	X	X	0.3	0.0	X
Machine Drive	1.9	X	0.0	0.5	0.0	X
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	0.0	X	0.0	0.0	0.0	X
<b>Direct Uses-Total Nonprocess</b>	<b>1.5</b>	<b>X</b>	<b>1.2</b>	<b>5.4</b>	<b>2.7</b>	<b>X</b>
Facility HVAC (f)	1.4	X	0.0	3.6	0.3	X
Facility Lighting	2.0	--	--	--	--	--
Other Facility Support	2.8	X	0.0	0.8	0.0	X
Onsite Transportation	0.0	--	1.4	0.0	2.9	--
Conventional Electricity Generation	--	X	0.0	0.0	X	X
Other Nonprocess Use	24.0	X	0.0	22.0	0.0	X
<b>End Use Not Reported</b>	<b>28.4</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>26.2</b>	<b>X</b>

**324191 Petroleum Lubricating Oil and Grease Products**

<b>TOTAL FUEL CONSUMPTION</b>	<b>19.1</b>	<b>X</b>	<b>51.2</b>	<b>17.4</b>	<b>19.5</b>	<b>X</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>6.0</b>	<b>X</b>	<b>35.9</b>	<b>10.0</b>	<b>0.5</b>	<b>X</b>
Conventional Boiler Use	6.0	X	0.0	5.2	X	X
CHP and/or Cogeneration Process	--	X	70.9	11.9	0.5	X
<b>Direct Uses-Total Process</b>	<b>23.4</b>	<b>X</b>	<b>84.2</b>	<b>28.3</b>	<b>25.3</b>	<b>X</b>
Process Heating	4.9	X	0.0	30.0	46.2	X
Process Cooling and Refrigeration	10.6	X	X	56.7	0.0	X
Machine Drive	27.8	X	0.0	48.1	0.5	X
Electro-Chemical Processes	49.8	--	--	--	--	--
Other Process Use	0.1	X	87.4	17.7	56.6	X
<b>Direct Uses-Total Nonprocess</b>	<b>2.8</b>	<b>X</b>	<b>8.4</b>	<b>4.3</b>	<b>30.5</b>	<b>X</b>
Facility HVAC (f)	4.7	X	21.9	4.7	83.9	X
Facility Lighting	1.9	--	--	--	--	--
Other Facility Support	2.4	X	0.0	3.8	0.0	X
Onsite Transportation	3.9	--	4.5	0.0	38.0	--
Conventional Electricity Generation	--	X	0.0	68.5	X	X
Other Nonprocess Use	19.6	X	0.7	0.0	56.6	X
<b>End Use Not Reported</b>	<b>47.4</b>	<b>X</b>	<b>88.8</b>	<b>X</b>	<b>7.3</b>	<b>X</b>

**324199 Other Petroleum and Coal Products**

<b>TOTAL FUEL CONSUMPTION</b>	0.0	X	0.0	0.0	0.0	X
<b>Indirect Uses-Boiler Fuel</b>	0.0	X	0.0	0.0	X	X
Conventional Boiler Use	0.0	X	0.0	0.0	X	X
CHP and/or Cogeneration Process	--	X	X	0.0	X	X
<b>Direct Uses-Total Process</b>	0.0	X	0.0	0.0	0.0	X
Process Heating	0.0	X	0.0	0.0	0.0	X
Process Cooling and Refrigeration	0.0	X	X	X	X	X
Machine Drive	0.0	X	0.0	0.0	0.0	X
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	0.0	X	0.0	0.0	X	X
<b>Direct Uses-Total Nonprocess</b>	0.0	X	0.0	0.0	0.0	X
Facility HVAC (f)	0.0	X	X	0.0	0.0	X
Facility Lighting	0.0	--	--	--	--	--
Other Facility Support	0.0	X	0.0	0.0	0.0	X
Onsite Transportation	0.0	--	0.0	0.0	0.0	--
Conventional Electricity Generation	--	X	0.0	X	0.0	X
Other Nonprocess Use	0.0	X	0.0	0.0	X	X
<b>End Use Not Reported</b>	0.0	X	X	X	0.0	X

**325 CHEMICALS**

<b>TOTAL FUEL CONSUMPTION</b>	1.1	8.3	2.2	1.7	13.9	0.4
<b>Indirect Uses-Boiler Fuel</b>	3.7	3.3	5.2	1.3	26.6	0.3
Conventional Boiler Use	3.7	3.3	5.5	2.3	29.2	0.0
CHP and/or Cogeneration Process	--	0.0	7.9	1.8	34.7	0.3
<b>Direct Uses-Total Process</b>	1.1	38.3	4.3	2.9	D	1.6
Process Heating	6.0	38.3	13.9	3.6	34.1	3.6
Process Cooling and Refrigeration	1.9	X	2.3	6.6	20.9	X
Machine Drive	1.5	X	2.6	2.9	54.8	X
Electro-Chemical Processes	0.3	--	--	--	--	--
Other Process Use	3.1	X	2.5	4.4	D	0.0
<b>Direct Uses-Total Nonprocess</b>	2.8	X	2.2	6.1	D	0.0
Facility HVAC (f)	3.0	X	7.1	6.6	D	0.0
Facility Lighting	3.1	--	--	--	--	--
Other Facility Support	5.9	X	0.1	10.9	23.8	X
Onsite Transportation	10.9	--	2.5	8.6	20.9	--
Conventional Electricity Generation	--	X	2.0	23.2	0.0	X
Other Nonprocess Use	14.9	X	9.0	21.5	42.9	X
<b>End Use Not Reported</b>	10.4	0.0	0.0	0.9	44.0	X



**325110 Petrochemicals**

<b>TOTAL FUEL CONSUMPTION</b>	0.0	X	0.0	0.0	0.0	X
<b>Indirect Uses-Boiler Fuel</b>	0.0	X	0.0	0.0	0.0	X
Conventional Boiler Use	0.0	X	0.0	0.0	0.0	X
CHP and/or Cogeneration Process	--	X	0.0	0.0	0.0	X
<b>Direct Uses-Total Process</b>	0.0	X	0.0	0.0	0.0	X
Process Heating	0.0	X	X	0.0	0.0	X
Process Cooling and Refrigeration	0.0	X	X	0.0	0.0	X
Machine Drive	0.0	X	0.0	D	X	X
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	0.0	X	0.0	D	0.0	X
<b>Direct Uses-Total Nonprocess</b>	0.0	X	0.0	0.0	0.0	X
Facility HVAC (f)	0.0	X	0.0	0.0	0.0	X
Facility Lighting	0.0	--	--	--	--	--
Other Facility Support	0.0	X	X	0.0	0.0	X
Onsite Transportation	0.0	--	0.0	X	0.0	--
Conventional Electricity Generation	--	X	0.0	0.0	X	X
Other Nonprocess Use	0.0	X	0.0	0.0	X	X
<b>End Use Not Reported</b>	X	X	X	X	0.0	X

**325120 Industrial Gases**

<b>TOTAL FUEL CONSUMPTION</b>	3.2	X	0.0	1.9	70.3	X
<b>Indirect Uses-Boiler Fuel</b>	14.6	X	0.0	0.1	X	X
Conventional Boiler Use	14.6	X	0.0	0.9	X	X
CHP and/or Cogeneration Process	--	X	X	0.1	X	X
<b>Direct Uses-Total Process</b>	3.2	X	0.0	8.0	40.4	X
Process Heating	22.1	X	X	4.6	X	X
Process Cooling and Refrigeration	22.5	X	X	34.3	40.4	X
Machine Drive	3.7	X	0.0	X	X	X
Electro-Chemical Processes	0.1	--	--	--	--	--
Other Process Use	0.1	X	X	10.0	X	X
<b>Direct Uses-Total Nonprocess</b>	6.1	X	0.0	26.9	81.0	X
Facility HVAC (f)	5.2	X	X	25.8	0.0	X
Facility Lighting	13.7	--	--	--	--	--
Other Facility Support	24.4	X	X	38.0	X	X
Onsite Transportation	0.4	--	0.0	X	68.0	--

Conventional Electricity Generation	--	X	X	X	X	X
Other Nonprocess Use	70.7	X	X	18.8	94.1	X
<b>End Use Not Reported</b>	<b>3.1</b>	<b>X</b>	<b>0.0</b>	<b>X</b>	<b>65.0</b>	<b>X</b>

**325180 Other Basic Inorganic Chemicals**

<b>TOTAL FUEL CONSUMPTION</b>	<b>1.4</b>	<b>X</b>	<b>3.2</b>	<b>4.0</b>	<b>9.2</b>	<b>0.0</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>1.7</b>	<b>X</b>	<b>0.5</b>	<b>0.5</b>	<b>0.0</b>	<b>0.0</b>
Conventional Boiler Use	1.7	X	1.5	2.3	0.0	0.0
CHP and/or Cogeneration Process	--	X	0.3	0.4	0.0	0.0
<b>Direct Uses-Total Process</b>	<b>1.4</b>	<b>X</b>	<b>2.3</b>	<b>7.6</b>	<b>8.5</b>	<b>0.0</b>
Process Heating	4.1	X	X	15.1	8.5	0.0
Process Cooling and Refrigeration	3.2	X	X	32.1	X	X
Machine Drive	7.0	X	3.0	1.5	0.0	X
Electro-Chemical Processes	0.3	--	--	--	--	--
Other Process Use	1.4	X	0.4	11.9	52.0	X
<b>Direct Uses-Total Nonprocess</b>	<b>7.7</b>	<b>X</b>	<b>4.4</b>	<b>16.1</b>	<b>19.3</b>	<b>X</b>
Facility HVAC (f)	10.7	X	0.0	8.5	29.9	X
Facility Lighting	5.4	--	--	--	--	--
Other Facility Support	11.8	X	0.0	7.8	X	X
Onsite Transportation	53.7	--	5.8	51.7	26.0	--
Conventional Electricity Generation	--	X	38.9	85.7	X	X
Other Nonprocess Use	25.5	X	48.7	81.0	3.8	X
<b>End Use Not Reported</b>	<b>0.0</b>	<b>X</b>	<b>X</b>	<b>0.1</b>	<b>44.8</b>	<b>X</b>

**325193 Ethyl Alcohol**

<b>TOTAL FUEL CONSUMPTION</b>	<b>1.5</b>	<b>X</b>	<b>2.8</b>	<b>1.5</b>	<b>8.6</b>	<b>0.0</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>5.2</b>	<b>X</b>	<b>X</b>	<b>2.0</b>	<b>16.2</b>	<b>0.0</b>
Conventional Boiler Use	5.2	X	X	2.8	0.0	X
CHP and/or Cogeneration Process	--	X	X	4.1	31.3	0.0
<b>Direct Uses-Total Process</b>	<b>1.4</b>	<b>X</b>	<b>2.0</b>	<b>2.4</b>	<b>6.2</b>	<b>X</b>
Process Heating	11.8	X	X	2.5	10.3	X
Process Cooling and Refrigeration	3.6	X	0.0	7.8	X	X
Machine Drive	1.3	X	2.2	2.2	2.1	X
Electro-Chemical Processes	53.7	--	--	--	--	--
Other Process Use	25.2	X	0.0	15.9	X	X
<b>Direct Uses-Total Nonprocess</b>	<b>5.4</b>	<b>X</b>	<b>3.3</b>	<b>7.4</b>	<b>5.4</b>	<b>X</b>
Facility HVAC (f)	4.3	X	72.0	5.9	19.3	X

Facility Lighting	4.2	--	--	--	--	--
Other Facility Support	11.3	X	0.0	10.9	0.0	X
Onsite Transportation	57.1	--	3.4	0.0	4.2	--
Conventional Electricity Generation	--	X	1.2	0.0	X	X
Other Nonprocess Use	0.0	X	0.0	59.1	0.0	X
<b>End Use Not Reported</b>	X	X	X	X	3.3	X

**325194 Cyclic Crudes, Intermediate and Gum and Wood Chemicals**

<b>TOTAL FUEL CONSUMPTION</b>	0.0	X	0.0	0.0	0.0	X
<b>Indirect Uses-Boiler Fuel</b>	0.0	X	0.0	0.0	0.0	X
Conventional Boiler Use	0.0	X	0.0	0.0	0.0	X
CHP and/or Cogeneration Process	--	X	0.0	0.0	X	X
<b>Direct Uses-Total Process</b>	0.0	X	0.0	0.0	0.0	X
Process Heating	0.0	X	0.0	0.0	0.0	X
Process Cooling and Refrigeration	0.0	X	X	0.0	X	X
Machine Drive	0.0	X	0.0	X	0.0	X
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	0.0	X	X	0.0	X	X
<b>Direct Uses-Total Nonprocess</b>	0.0	X	0.0	0.0	0.0	X
Facility HVAC (f)	0.0	X	0.0	0.0	0.0	X
Facility Lighting	0.0	--	--	--	--	--
Other Facility Support	0.0	X	X	0.0	0.0	X
Onsite Transportation	0.0	--	0.0	0.0	0.0	--
Conventional Electricity Generation	--	X	0.0	X	X	X
Other Nonprocess Use	0.0	X	0.0	X	X	X
<b>End Use Not Reported</b>	0.0	X	X	0.0	0.0	X

**325199 Other Basic Organic Chemicals**

<b>TOTAL FUEL CONSUMPTION</b>	3.6	0.0	9.2	6.0	8.3	1.6
<b>Indirect Uses-Boiler Fuel</b>	4.7	0.0	39.2	5.9	18.8	1.1
Conventional Boiler Use	4.7	0.0	0.4	7.4	0.0	0.0
CHP and/or Cogeneration Process	--	0.0	57.3	8.4	84.8	1.2
<b>Direct Uses-Total Process</b>	3.8	X	10.0	7.6	3.3	3.0
Process Heating	5.2	X	29.1	6.3	3.4	87.5
Process Cooling and Refrigeration	3.5	X	5.0	37.4	33.4	X
Machine Drive	4.6	X	2.9	16.1	17.8	X
Electro-Chemical Processes	0.9	--	--	--	--	--

Other Process Use	0.8	X	0.1	17.5	60.5	0.0
<b>Direct Uses-Total Nonprocess</b>	<b>9.5</b>	<b>X</b>	<b>7.0</b>	<b>15.3</b>	<b>16.9</b>	<b>X</b>
Facility HVAC (f)	8.1	X	X	6.4	37.0	X
Facility Lighting	7.2	--	--	--	--	--
Other Facility Support	25.3	X	0.8	37.3	46.0	X
Onsite Transportation	31.9	--	7.7	46.0	18.8	--
Conventional Electricity Generation	--	X	0.1	5.2	0.0	X
Other Nonprocess Use	0.7	X	30.4	0.0	0.0	X
<b>End Use Not Reported</b>	<b>17.8</b>	<b>X</b>	<b>X</b>	<b>0.4</b>	<b>0.0</b>	<b>X</b>

**325211 Plastics Materials and Resins**

<b>TOTAL FUEL CONSUMPTION</b>	<b>1.5</b>	<b>X</b>	<b>D</b>	<b>1.1</b>	<b>D</b>	<b>D</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>3.7</b>	<b>X</b>	<b>0.1</b>	<b>1.3</b>	<b>65.7</b>	<b>X</b>
Conventional Boiler Use	3.7	X	0.1	9.4	0.0	X
CHP and/or Cogeneration Process	--	X	0.0	0.4	87.8	X
<b>Direct Uses-Total Process</b>	<b>1.4</b>	<b>X</b>	<b>D</b>	<b>1.8</b>	<b>D</b>	<b>D</b>
Process Heating	8.4	X	D	2.9	78.2	D
Process Cooling and Refrigeration	4.9	X	21.4	0.1	X	X
Machine Drive	1.9	X	13.3	0.5	9.4	X
Electro-Chemical Processes	0.1	--	--	--	--	--
Other Process Use	7.7	X	51.7	1.7	D	X
<b>Direct Uses-Total Nonprocess</b>	<b>5.0</b>	<b>X</b>	<b>4.0</b>	<b>8.6</b>	<b>8.9</b>	<b>X</b>
Facility HVAC (f)	9.0	X	68.1	11.4	15.4	X
Facility Lighting	4.1	--	--	--	--	--
Other Facility Support	3.0	X	0.0	3.2	1.4	X
Onsite Transportation	3.6	--	4.2	26.8	11.8	--
Conventional Electricity Generation	--	X	12.7	92.5	X	X
Other Nonprocess Use	1.9	X	0.2	0.1	6.8	X
<b>End Use Not Reported</b>	<b>56.6</b>	<b>X</b>	<b>0.0</b>	<b>33.0</b>	<b>20.6</b>	<b>X</b>

**325212 Synthetic Rubber**

<b>TOTAL FUEL CONSUMPTION</b>	<b>0.0</b>	<b>X</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>0.0</b>	<b>X</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
Conventional Boiler Use	0.0	X	0.0	0.0	0.0	0.0
CHP and/or Cogeneration Process	--	X	0.0	0.0	X	0.0
<b>Direct Uses-Total Process</b>	<b>0.0</b>	<b>X</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>X</b>
Process Heating	0.0	X	X	0.0	0.0	X

Process Cooling and Refrigeration	0.0	X	X	0.0	0.0	X
Machine Drive	0.0	X	0.0	0.0	0.0	X
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	0.0	X	0.0	0.0	0.0	X
<b>Direct Uses-Total Nonprocess</b>	0.0	X	0.0	0.0	0.0	X
Facility HVAC (f)	0.0	X	X	0.0	0.0	X
Facility Lighting	0.0	--	--	--	--	--
Other Facility Support	0.0	X	0.0	0.0	0.0	X
Onsite Transportation	0.0	--	0.0	0.0	0.0	--
Conventional Electricity Generation	--	X	0.0	X	X	X
Other Nonprocess Use	0.0	X	0.0	0.0	X	X
<b>End Use Not Reported</b>	0.0	X	X	0.0	0.0	X

**325220 Artificial and Synthetic Fibers and Filaments**

<b>TOTAL FUEL CONSUMPTION</b>	0.0	X	0.0	0.0	0.0	0.0
<b>Indirect Uses-Boiler Fuel</b>	0.0	X	0.0	0.0	0.0	0.0
Conventional Boiler Use	0.0	X	0.0	0.0	0.0	X
CHP and/or Cogeneration Process	--	X	X	0.0	0.0	0.0
<b>Direct Uses-Total Process</b>	0.0	X	0.0	0.0	0.0	X
Process Heating	0.0	X	0.0	0.0	0.0	X
Process Cooling and Refrigeration	0.0	X	X	X	X	X
Machine Drive	0.0	X	0.0	0.0	0.0	X
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	0.0	X	X	0.0	0.0	X
<b>Direct Uses-Total Nonprocess</b>	0.0	X	0.0	0.0	0.0	X
Facility HVAC (f)	0.0	X	X	0.0	0.0	X
Facility Lighting	0.0	--	--	--	--	--
Other Facility Support	0.0	X	X	0.0	0.0	X
Onsite Transportation	0.0	--	0.0	X	0.0	--
Conventional Electricity Generation	--	X	X	X	X	X
Other Nonprocess Use	0.0	X	0.0	X	0.0	X
<b>End Use Not Reported</b>	0.0	X	X	X	0.0	X

**325311 Nitrogenous Fertilizers**

<b>TOTAL FUEL CONSUMPTION</b>	11.4	X	2.7	3.2	86.5	X
<b>Indirect Uses-Boiler Fuel</b>	0.8	X	0.0	0.3	0.0	X
Conventional Boiler Use	0.8	X	0.0	0.5	0.0	X

CHP and/or Cogeneration Process	--	X	0.0	0.1	X	X
<b>Direct Uses-Total Process</b>	<b>11.6</b>	<b>X</b>	<b>0.0</b>	<b>4.1</b>	<b>29.3</b>	<b>X</b>
Process Heating	9.3	X	X	4.9	40.7	X
Process Cooling and Refrigeration	11.6	X	X	X	X	X
Machine Drive	10.4	X	0.0	4.4	0.0	X
Electro-Chemical Processes	65.9	--	--	--	--	--
Other Process Use	80.7	X	0.0	0.1	X	X
<b>Direct Uses-Total Nonprocess</b>	<b>12.1</b>	<b>X</b>	<b>6.1</b>	<b>36.5</b>	<b>89.2</b>	<b>X</b>
Facility HVAC (f)	5.7	X	0.0	36.8	0.0	X
Facility Lighting	17.8	--	--	--	--	--
Other Facility Support	29.6	X	X	43.0	0.0	X
Onsite Transportation	34.5	--	10.2	X	89.7	--
Conventional Electricity Generation	--	X	68.4	76.6	X	X
Other Nonprocess Use	0.0	X	0.5	X	X	X
<b>End Use Not Reported</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>47.5</b>	<b>X</b>

**325312 Phosphatic Fertilizers**

<b>TOTAL FUEL CONSUMPTION</b>	<b>0.0</b>	<b>0.0</b>	<b>D</b>	<b>0.0</b>	<b>0.0</b>	<b>D</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>0.0</b>	<b>X</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>X</b>
Conventional Boiler Use	0.0	X	X	0.0	0.0	X
CHP and/or Cogeneration Process	--	X	0.0	0.0	0.0	X
<b>Direct Uses-Total Process</b>	<b>0.0</b>	<b>0.0</b>	<b>D</b>	<b>0.0</b>	<b>0.0</b>	<b>D</b>
Process Heating	0.0	0.0	D	0.0	0.0	D
Process Cooling and Refrigeration	0.0	X	X	X	X	X
Machine Drive	0.0	X	0.0	0.0	0.0	X
Electro-Chemical Processes	X	--	--	--	--	--
Other Process Use	X	X	0.0	0.0	X	X
<b>Direct Uses-Total Nonprocess</b>	<b>0.0</b>	<b>X</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>X</b>
Facility HVAC (f)	0.0	X	0.0	0.0	0.0	X
Facility Lighting	0.0	--	--	--	--	--
Other Facility Support	0.0	X	0.0	0.0	0.0	X
Onsite Transportation	0.0	--	0.0	X	0.0	--
Conventional Electricity Generation	--	X	0.0	X	X	X
Other Nonprocess Use	X	X	0.0	X	X	X
<b>End Use Not Reported</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>0.0</b>	<b>X</b>

**3254 Pharmaceuticals and Medicines**

<b>TOTAL FUEL CONSUMPTION</b>	2.8	X	2.6	5.2	25.5	0.0
<b>Indirect Uses-Boiler Fuel</b>	8.4	X	0.6	3.6	34.6	0.0
Conventional Boiler Use	8.4	X	0.0	6.4	41.8	0.0
CHP and/or Cogeneration Process	--	X	6.3	2.5	5.2	X
<b>Direct Uses-Total Process</b>	1.5	X	3.5	8.8	29.4	X
Process Heating	2.8	X	0.0	10.1	28.0	X
Process Cooling and Refrigeration	2.0	X	5.2	13.1	X	X
Machine Drive	2.2	X	0.0	26.5	95.4	X
Electro-Chemical Processes	19.6	--	--	--	--	--
Other Process Use	3.0	X	23.0	3.2	58.7	X
Direct Uses-Total Nonprocess	4.7	X	4.6	13.5	52.9	0.0
<b>Facility HVAC (f)</b>	5.0	X	8.0	14.0	61.0	0.0
Facility Lighting	3.6	--	--	--	--	--
Other Facility Support	9.8	X	0.0	6.2	43.9	X
Onsite Transportation	5.9	--	4.4	18.8	17.9	--
Conventional Electricity Generation	--	X	3.4	41.0	0.0	X
Other Nonprocess Use	9.7	X	6.0	1.1	14.3	X
<b>End Use Not Reported</b>	25.6	X	X	10.6	35.9	X

**325412 Pharmaceutical Preparation**

<b>TOTAL FUEL CONSUMPTION</b>	1.7	X	2.9	9.6	30.1	0.0
<b>Indirect Uses-Boiler Fuel</b>	12.9	X	0.7	3.0	43.4	0.0
Conventional Boiler Use	12.9	X	0.0	2.4	43.4	0.0
CHP and/or Cogeneration Process	--	X	11.5	7.8	0.0	X
<b>Direct Uses-Total Process</b>	1.6	X	3.8	12.2	34.9	X
Process Heating	2.9	X	0.0	14.8	36.1	X
Process Cooling and Refrigeration	2.3	X	0.0	15.1	X	X
Machine Drive	2.4	X	0.0	31.9	95.4	X
Electro-Chemical Processes	38.3	--	--	--	--	--
Other Process Use	1.7	X	30.0	3.9	58.7	X
<b>Direct Uses-Total Nonprocess</b>	2.0	X	5.3	21.1	57.5	0.0
Facility HVAC (f)	2.2	X	8.2	22.1	61.1	0.0
Facility Lighting	2.2	--	--	--	--	--
Other Facility Support	5.7	X	0.0	9.2	65.3	X
Onsite Transportation	6.7	--	8.8	20.1	19.7	--
Conventional Electricity Generation	--	X	4.2	43.3	X	X
Other Nonprocess Use	4.1	X	6.4	1.4	0.0	X
<b>End Use Not Reported</b>	0.0	X	X	0.0	50.6	X

325992 Photographic Film, Paper, Plate, and Chemicals

<b>TOTAL FUEL CONSUMPTION</b>	0.3	0.0	0.1	0.4	1.5	X
<b>Indirect Uses-Boiler Fuel</b>	0.0	0.0	0.0	0.4	X	X
Conventional Boiler Use	0.0	X	0.0	0.7	X	X
CHP and/or Cogeneration Process	--	0.0	0.0	0.0	X	X
<b>Direct Uses-Total Process</b>	0.1	X	0.0	0.7	0.0	X
Process Heating	0.3	X	0.0	0.7	X	X
Process Cooling and Refrigeration	0.2	X	0.0	0.0	X	X
Machine Drive	0.2	X	0.0	0.0	0.0	X
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	0.0	X	0.0	0.6	X	X
<b>Direct Uses-Total Nonprocess</b>	0.6	X	0.1	1.1	5.3	X
Facility HVAC (f)	0.6	X	0.0	1.3	X	X
Facility Lighting	0.8	--	--	--	--	--
Other Facility Support	1.5	X	0.0	0.0	0.0	X
Onsite Transportation	0.0	--	0.0	X	19.6	--
Conventional Electricity Generation	--	X	51.6	0.0	X	X
Other Nonprocess Use	0.0	X	0.0	0.0	0.0	X
<b>End Use Not Reported</b>	0.0	X	X	0.0	0.1	X

326 PLASTICS AND RUBBER PRODUCTS

<b>TOTAL FUEL CONSUMPTION</b>	7.7	72.4	64.9	14.3	17.3	X
<b>Indirect Uses-Boiler Fuel</b>	59.1	72.4	59.5	24.3	19.5	X
Conventional Boiler Use	59.1	72.4	80.3	33.6	72.1	X
CHP and/or Cogeneration Process	--	X	82.0	33.4	0.0	X
<b>Direct Uses-Total Process</b>	8.3	X	84.3	19.7	52.3	X
Process Heating	17.4	X	99.0	20.8	67.7	X
Process Cooling and Refrigeration	13.9	X	X	95.4	X	X
Machine Drive	9.4	X	64.6	63.4	73.7	X
Electro-Chemical Processes	54.0	--	--	--	--	--
Other Process Use	45.9	X	57.5	56.5	14.0	X
<b>Direct Uses-Total Nonprocess</b>	9.7	X	43.0	19.5	16.2	X
Facility HVAC (f)	10.0	X	X	20.4	61.6	X
Facility Lighting	9.7	--	--	--	--	--
Other Facility Support	15.8	X	X	32.9	95.2	X
Onsite Transportation	20.5	--	53.0	89.9	16.9	--
Conventional Electricity Generation	--	X	67.7	95.9	X	X



Other Nonprocess Use	90.7	X	55.8	X	94.0	X
<b>End Use Not Reported</b>	<b>74.6</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>76.4</b>	<b>X</b>

**327 NONMETALLIC MINERAL PRODUCTS**

<b>TOTAL FUEL CONSUMPTION</b>	<b>2.5</b>	<b>97.3</b>	<b>16.7</b>	<b>1.7</b>	<b>27.5</b>	<b>7.5</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>13.0</b>	<b>X</b>	<b>88.1</b>	<b>17.0</b>	<b>12.8</b>	<b>0.0</b>
Conventional Boiler Use	13.0	X	47.9	30.0	0.1	0.0
CHP and/or Cogeneration Process	--	X	99.0	19.6	65.2	0.0
<b>Direct Uses-Total Process</b>	<b>2.6</b>	<b>97.3</b>	<b>28.0</b>	<b>1.6</b>	<b>51.5</b>	<b>7.5</b>
Process Heating	2.9	97.3	58.3	1.3	57.7	0.2
Process Cooling and Refrigeration	7.8	X	X	21.6	X	4.9
Machine Drive	2.8	97.3	31.9	6.8	63.0	0.0
Electro-Chemical Processes	1.5	--	--	--	--	--
Other Process Use	25.8	X	42.0	54.8	44.6	76.3
<b>Direct Uses-Total Nonprocess</b>	<b>4.0</b>	<b>X</b>	<b>19.1</b>	<b>7.8</b>	<b>11.5</b>	<b>0.0</b>
Facility HVAC (f)	4.3	X	51.6	8.3	38.2	X
Facility Lighting	4.9	--	--	--	--	--
Other Facility Support	6.8	X	83.9	9.8	64.6	0.0
Onsite Transportation	8.7	--	19.2	42.8	11.4	--
Conventional Electricity Generation	--	X	74.9	70.9	0.0	X
Other Nonprocess Use	27.5	X	57.4	26.1	66.7	X
<b>End Use Not Reported</b>	<b>24.9</b>	<b>X</b>	<b>X</b>	<b>13.3</b>	<b>91.0</b>	<b>X</b>

**327120 Clay Building Material and Refractories**

<b>TOTAL FUEL CONSUMPTION</b>	<b>3.6</b>	<b>X</b>	<b>2.2</b>	<b>2.2</b>	<b>5.5</b>	<b>0.0</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>35.2</b>	<b>X</b>	<b>X</b>	<b>8.4</b>	<b>0.0</b>	<b>X</b>
Conventional Boiler Use	35.2	X	X	2.7	0.0	X
CHP and/or Cogeneration Process	--	X	X	8.7	X	X
<b>Direct Uses-Total Process</b>	<b>3.2</b>	<b>X</b>	<b>10.0</b>	<b>1.9</b>	<b>8.1</b>	<b>0.0</b>
Process Heating	3.6	X	0.1	2.0	0.3	0.0
Process Cooling and Refrigeration	12.2	X	X	X	X	X
Machine Drive	3.8	X	16.1	15.7	70.0	X
Electro-Chemical Processes	X	--	--	--	--	--
Other Process Use	58.2	X	0.0	9.9	72.5	0.0
<b>Direct Uses-Total Nonprocess</b>	<b>7.0</b>	<b>X</b>	<b>2.2</b>	<b>9.5</b>	<b>6.9</b>	<b>X</b>
Facility HVAC (f)	6.0	X	35.5	10.0	30.2	X
Facility Lighting	9.9	--	--	--	--	--

Other Facility Support	8.8	X	0.0	17.4	X	X
Onsite Transportation	13.1	--	2.2	0.1	5.8	--
Conventional Electricity Generation	--	X	0.4	X	X	X
Other Nonprocess Use	49.2	X	8.5	X	0.0	X
<b>End Use Not Reported</b>	<b>8.2</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>8.1</b>	<b>X</b>

**327211 Flat Glass**

<b>TOTAL FUEL CONSUMPTION</b>	<b>0.0</b>	<b>X</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>X</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>0.0</b>	<b>X</b>	<b>X</b>	<b>0.0</b>	<b>X</b>	<b>X</b>
Conventional Boiler Use	0.0	X	X	0.0	X	X
CHP and/or Cogeneration Process	--	X	X	0.0	X	X
<b>Direct Uses-Total Process</b>	<b>0.0</b>	<b>X</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>X</b>
Process Heating	0.0	X	X	0.0	0.0	X
Process Cooling and Refrigeration	0.0	X	X	X	X	X
Machine Drive	0.0	X	0.0	0.0	0.0	X
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	0.0	X	0.0	0.0	X	X
<b>Direct Uses-Total Nonprocess</b>	<b>0.0</b>	<b>X</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>X</b>
Facility HVAC (f)	0.0	X	X	0.0	X	X
Facility Lighting	0.0	--	--	--	--	--
Other Facility Support	0.0	X	X	0.0	X	X
Onsite Transportation	0.0	--	0.0	X	0.0	--
Conventional Electricity Generation	--	X	0.0	X	X	X
Other Nonprocess Use	0.0	X	0.0	0.0	X	X
<b>End Use Not Reported</b>	<b>0.0</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>0.0</b>	<b>X</b>

**327212 Other Pressed and Blown Glass and Glassware**

<b>TOTAL FUEL CONSUMPTION</b>	<b>0.8</b>	<b>X</b>	<b>0.7</b>	<b>0.7</b>	<b>27.7</b>	<b>X</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>17.5</b>	<b>X</b>	<b>0.0</b>	<b>3.9</b>	<b>44.6</b>	<b>X</b>
Conventional Boiler Use	17.5	X	0.0	2.6	X	X
CHP and/or Cogeneration Process	--	X	X	5.2	44.6	X
<b>Direct Uses-Total Process</b>	<b>0.5</b>	<b>X</b>	<b>0.0</b>	<b>0.7</b>	<b>37.2</b>	<b>X</b>
Process Heating	0.8	X	0.0	0.7	40.1	X
Process Cooling and Refrigeration	0.5	X	X	9.8	X	X
Machine Drive	1.0	X	0.0	0.3	0.3	X
Electro-Chemical Processes	1.7	--	--	--	--	--
Other Process Use	0.4	X	0.0	0.0	0.0	X

<b>Direct Uses-Total Nonprocess</b>	2.3	X	0.9	2.1	24.5	X
Facility HVAC (f)	3.1	X	X	2.2	71.6	X
Facility Lighting	1.9	--	--	--	--	--
Other Facility Support	3.4	X	X	1.8	73.7	X
Onsite Transportation	5.0	--	0.5	X	16.1	--
Conventional Electricity Generation	--	X	0.0	91.9	X	X
Other Nonprocess Use	0.0	X	24.7	X	0.0	X
<b>End Use Not Reported</b>	X	X	X	X	10.3	X

**327213 Glass Containers**

<b>TOTAL FUEL CONSUMPTION</b>	0.0	X	0.0	0.0	0.0	X
<b>Indirect Uses-Boiler Fuel</b>	0.0	X	X	0.0	X	X
Conventional Boiler Use	0.0	X	X	X	X	X
CHP and/or Cogeneration Process	--	X	X	0.0	X	X
<b>Direct Uses-Total Process</b>	0.0	X	0.0	0.0	0.0	X
Process Heating	0.0	X	X	0.0	0.0	X
Process Cooling and Refrigeration	0.0	X	X	0.0	X	X
Machine Drive	0.0	X	0.0	0.0	X	X
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	0.0	X	X	X	X	X
<b>Direct Uses-Total Nonprocess</b>	0.0	X	0.0	0.0	0.0	X
Facility HVAC (f)	0.0	X	X	0.0	0.0	X
Facility Lighting	0.0	--	--	--	--	--
Other Facility Support	0.0	X	X	0.0	X	X
Onsite Transportation	0.0	--	0.0	X	0.0	--
Conventional Electricity Generation	--	X	0.0	X	X	X
Other Nonprocess Use	0.0	X	X	0.0	X	X
<b>End Use Not Reported</b>	0.0	X	X	0.0	X	X

**327215 Glass Products from Purchased Glass**

<b>TOTAL FUEL CONSUMPTION</b>	1.4	X	26.8	1.1	1.9	X
<b>Indirect Uses-Boiler Fuel</b>	14.8	X	54.8	1.2	0.1	X
Conventional Boiler Use	14.8	X	54.9	0.7	0.1	X
CHP and/or Cogeneration Process	--	X	0.0	1.5	0.0	X
<b>Direct Uses-Total Process</b>	1.6	X	0.0	1.2	1.4	X
Process Heating	2.9	X	X	1.4	0.1	X
Process Cooling and Refrigeration	1.2	X	X	70.0	X	X

Machine Drive	1.2	X	0.0	0.6	0.3	X
Electro-Chemical Processes	0.1	--	--	--	--	--
Other Process Use	1.5	X	0.0	0.5	81.4	X
<b>Direct Uses-Total Nonprocess</b>	<b>1.8</b>	<b>X</b>	<b>30.0</b>	<b>3.7</b>	<b>2.5</b>	<b>X</b>
Facility HVAC (f)	2.3	X	45.0	4.1	0.0	X
Facility Lighting	4.1	--	--	--	--	--
Other Facility Support	2.0	X	91.2	5.4	75.8	X
Onsite Transportation	1.3	--	5.7	62.3	2.9	--
Conventional Electricity Generation	--	X	0.0	0.0	0.0	X
Other Nonprocess Use	1.2	X	1.1	0.2	5.1	X
<b>End Use Not Reported</b>	<b>18.3</b>	<b>X</b>	<b>X</b>	<b>0.0</b>	<b>45.9</b>	<b>X</b>

**327310 Cements**

<b>TOTAL FUEL CONSUMPTION</b>	<b>0.3</b>	<b>X</b>	<b>0.3</b>	<b>1.2</b>	<b>1.1</b>	<b>0.3</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>0.0</b>	<b>X</b>	<b>X</b>	<b>0.0</b>	<b>X</b>	<b>0.0</b>
Conventional Boiler Use	0.0	X	X	0.0	X	0.0
CHP and/or Cogeneration Process	--	X	X	0.0	X	0.0
<b>Direct Uses-Total Process</b>	<b>0.3</b>	<b>X</b>	<b>0.1</b>	<b>1.2</b>	<b>8.7</b>	<b>0.3</b>
Process Heating	1.0	X	0.0	0.2	0.0	0.3
Process Cooling and Refrigeration	0.8	X	X	23.5	X	4.9
Machine Drive	0.4	X	0.1	0.0	12.3	0.0
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	0.0	X	43.0	X	X	X
<b>Direct Uses-Total Nonprocess</b>	<b>1.4</b>	<b>X</b>	<b>0.5</b>	<b>3.4</b>	<b>0.1</b>	<b>0.0</b>
Facility HVAC (f)	1.3	X	0.0	3.8	0.0	X
Facility Lighting	2.1	--	--	--	--	--
Other Facility Support	1.1	X	X	0.1	0.0	0.0
Onsite Transportation	0.0	--	0.5	X	0.2	--
Conventional Electricity Generation	--	X	0.0	X	X	X
Other Nonprocess Use	0.0	X	0.0	X	1.2	X
<b>End Use Not Reported</b>	<b>0.0</b>	<b>X</b>	<b>X</b>	<b>0.0</b>	<b>X</b>	<b>X</b>

**327410 Lime**

<b>TOTAL FUEL CONSUMPTION</b>	<b>0.0</b>	<b>X</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>0.0</b>	<b>X</b>	<b>X</b>	<b>0.0</b>	<b>X</b>	<b>X</b>
Conventional Boiler Use	0.0	X	X	0.0	X	X
CHP and/or Cogeneration Process	--	X	X	X	X	X

<b>Direct Uses-Total Process</b>	0.0	X	0.0	0.0	0.0	0.0
Process Heating	0.0	X	0.0	0.0	0.0	0.0
Process Cooling and Refrigeration	0.0	X	X	X	X	X
Machine Drive	0.0	X	0.0	0.0	0.0	X
Electro-Chemical Processes	X	--	--	--	--	--
Other Process Use	0.0	X	0.0	X	X	X
<b>Direct Uses-Total Nonprocess</b>	0.0	X	0.0	0.0	0.0	X
Facility HVAC (f)	0.0	X	X	0.0	0.0	X
Facility Lighting	0.0	--	--	--	--	--
Other Facility Support	0.0	X	X	0.0	0.0	X
Onsite Transportation	0.0	--	0.0	X	0.0	--
Conventional Electricity Generation	--	X	X	X	X	X
Other Nonprocess Use	0.0	X	X	X	0.0	X
<b>End Use Not Reported</b>	X	X	X	X	X	X

**327420 Gypsum**

<b>TOTAL FUEL CONSUMPTION</b>	2.6	X	47.3	0.5	1.4	X
<b>Indirect Uses-Boiler Fuel</b>	0.0	X	X	0.0	X	X
Conventional Boiler Use	0.0	X	X	0.0	X	X
CHP and/or Cogeneration Process	--	X	X	0.0	X	X
<b>Direct Uses-Total Process</b>	2.9	X	75.4	0.5	X	X
Process Heating	17.0	X	72.8	0.5	X	X
Process Cooling and Refrigeration	3.5	X	X	0.0	X	X
Machine Drive	3.1	X	78.2	0.0	X	X
Electro-Chemical Processes	X	--	--	--	--	--
Other Process Use	51.8	X	X	X	X	X
<b>Direct Uses-Total Nonprocess</b>	1.9	X	37.9	2.9	1.4	X
Facility HVAC (f)	2.0	X	0.0	3.8	0.0	X
Facility Lighting	2.0	--	--	--	--	--
Other Facility Support	4.9	X	0.0	0.3	X	X
Onsite Transportation	0.0	--	17.8	0.0	1.4	--
Conventional Electricity Generation	--	X	87.6	X	X	X
Other Nonprocess Use	0.0	X	57.2	X	57.9	X
<b>End Use Not Reported</b>	0.0	X	X	14.4	0.0	X

**327993 Mineral Wool**

<b>TOTAL FUEL CONSUMPTION</b>	0.4	X	0.1	1.0	6.3	0.0
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<b>Indirect Uses-Boiler Fuel</b>	16.6	X	X	20.4	X	X
Conventional Boiler Use	16.6	X	X	0.0	X	X
CHP and/or Cogeneration Process	--	X	X	23.7	X	X
<b>Direct Uses-Total Process</b>	0.4	X	0.1	0.7	0.4	0.0
Process Heating	0.8	X	0.0	0.7	0.0	0.0
Process Cooling and Refrigeration	0.3	X	X	0.0	X	X
Machine Drive	0.5	X	0.1	2.3	5.5	X
Electro-Chemical Processes	2.2	--	--	--	--	--
Other Process Use	0.0	X	0.0	0.0	X	X
<b>Direct Uses-Total Nonprocess</b>	0.9	X	0.1	2.0	7.2	X
Facility HVAC (f)	1.5	X	0.4	2.4	0.0	X
Facility Lighting	0.7	--	--	--	--	--
Other Facility Support	1.2	X	0.1	0.5	X	X
Onsite Transportation	5.9	--	0.0	0.0	7.2	--
Conventional Electricity Generation	--	X	0.0	0.0	X	X
Other Nonprocess Use	5.9	X	0.0	X	X	X
<b>End Use Not Reported</b>	0.0	X	X	X	X	X

**331 PRIMARY METALS**

<b>TOTAL FUEL CONSUMPTION</b>	1.0	0.3	0.9	0.2	2.2	0.1
<b>Indirect Uses-Boiler Fuel</b>	4.9	0.0	0.0	0.5	2.4	X
Conventional Boiler Use	4.9	0.0	0.0	0.3	2.5	X
CHP and/or Cogeneration Process	--	0.0	0.0	0.7	4.1	X
<b>Direct Uses-Total Process</b>	0.9	89.7	0.5	0.2	1.7	0.1
Process Heating	1.3	X	5.2	0.2	2.0	0.1
Process Cooling and Refrigeration	0.6	X	0.0	0.2	0.6	X
Machine Drive	1.3	89.7	0.3	5.2	5.1	X
Electro-Chemical Processes	0.2	--	--	--	--	--
Other Process Use	0.4	X	0.0	0.3	3.6	0.0
<b>Direct Uses-Total Nonprocess</b>	2.5	X	1.1	0.7	3.6	X
Facility HVAC (f)	2.9	X	4.0	0.8	19.0	X
Facility Lighting	2.8	--	--	--	--	--
Other Facility Support	1.2	X	8.5	1.1	3.8	X
Onsite Transportation	2.0	--	1.1	2.1	2.8	--
Conventional Electricity Generation	--	X	0.3	1.4	8.3	X
Other Nonprocess Use	4.3	X	2.2	0.1	0.7	X
<b>End Use Not Reported</b>	5.9	X	X	2.2	5.8	X

**331110 Iron and Steel Mills and Ferroalloys**

<b>TOTAL FUEL CONSUMPTION</b>	0.0	0.0	0.0	0.0	0.0	0.0
<b>Indirect Uses-Boiler Fuel</b>	0.0	0.0	0.0	0.0	0.0	X
Conventional Boiler Use	0.0	0.0	X	0.0	X	X
CHP and/or Cogeneration Process	--	0.0	0.0	0.0	0.0	X
<b>Direct Uses-Total Process</b>	0.0	X	0.0	0.0	0.0	0.0
Process Heating	0.0	X	0.0	0.0	0.0	0.0
Process Cooling and Refrigeration	0.0	X	X	0.0	0.0	X
Machine Drive	0.0	X	0.0	0.0	0.0	X
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	0.0	X	0.0	0.0	0.0	0.0
<b>Direct Uses-Total Nonprocess</b>	0.0	X	0.0	0.0	0.0	X
Facility HVAC (f)	0.0	X	0.0	0.0	0.0	X
Facility Lighting	0.0	--	--	--	--	--
Other Facility Support	0.0	X	0.0	0.0	0.0	X
Onsite Transportation	0.0	--	0.0	0.0	0.0	--
Conventional Electricity Generation	--	X	0.0	0.0	0.0	X
Other Nonprocess Use	0.0	X	0.0	0.0	0.0	X
<b>End Use Not Reported</b>	0.0	X	X	0.0	0.0	X

**3312 Steel Products from Purchased Steel**

<b>TOTAL FUEL CONSUMPTION</b>	17.6	X	11.1	3.9	15.4	0.0
<b>Indirect Uses-Boiler Fuel</b>	42.2	X	0.0	10.8	66.2	X
Conventional Boiler Use	42.2	X	X	6.0	72.5	X
CHP and/or Cogeneration Process	--	X	0.0	16.1	26.0	X
<b>Direct Uses-Total Process</b>	16.4	X	2.0	3.3	20.7	0.0
Process Heating	30.9	X	0.0	3.4	33.2	0.0
Process Cooling and Refrigeration	2.2	X	X	0.0	0.0	X
Machine Drive	15.7	X	2.1	25.8	28.8	X
Electro-Chemical Processes	2.1	--	--	--	--	--
Other Process Use	5.0	X	0.0	0.5	50.7	X
<b>Direct Uses-Total Nonprocess</b>	26.0	X	13.7	4.8	17.3	X
Facility HVAC (f)	29.0	X	45.2	5.1	54.6	X
Facility Lighting	28.7	--	--	--	--	--
Other Facility Support	12.9	X	0.0	10.7	68.2	X
Onsite Transportation	8.4	--	13.8	X	12.4	--
Conventional Electricity Generation	--	X	0.0	3.2	63.9	X
Other Nonprocess Use	4.1	X	X	X	73.7	X

	<b>End Use Not Reported</b>	90.8	X	X	X	7.9	X
<b>3313</b>	<b>Alumina and Aluminum</b>						
	<b>TOTAL FUEL CONSUMPTION</b>	0.1	X	0.7	0.4	1.0	X
	<b>Indirect Uses-Boiler Fuel</b>	0.1	X	0.0	0.1	13.4	X
	Conventional Boiler Use	0.1	X	X	0.0	0.0	X
	CHP and/or Cogeneration Process	--	X	0.0	0.1	13.8	X
	<b>Direct Uses-Total Process</b>	0.1	X	0.0	0.5	1.0	X
	Process Heating	0.9	X	0.0	0.5	1.7	X
	Process Cooling and Refrigeration	0.8	X	X	6.3	0.0	X
	Machine Drive	0.2	X	0.0	3.5	0.1	X
	Electro-Chemical Processes	0.0	--	--	--	--	--
	Other Process Use	0.1	X	0.0	0.1	0.0	X
	<b>Direct Uses-Total Nonprocess</b>	0.2	X	0.9	0.3	1.2	X
	Facility HVAC (f)	0.4	X	0.0	0.3	0.1	X
	Facility Lighting	0.2	--	--	--	--	--
	Other Facility Support	0.2	X	9.7	0.6	0.0	X
	Onsite Transportation	1.0	--	0.9	27.8	2.3	--
	Conventional Electricity Generation	--	X	X	0.1	0.0	X
	Other Nonprocess Use	0.2	X	0.0	X	0.0	X
	<b>End Use Not Reported</b>	0.0	X	X	0.1	0.2	X
<b>331314</b>	<b>Secondary Smelting and Alloying of Aluminum</b>						
	<b>TOTAL FUEL CONSUMPTION</b>	1.5	X	2.8	2.3	1.1	X
	<b>Indirect Uses-Boiler Fuel</b>	0.0	X	X	0.0	X	X
	Conventional Boiler Use	0.0	X	X	0.0	X	X
	CHP and/or Cogeneration Process	--	X	X	0.0	X	X
	<b>Direct Uses-Total Process</b>	1.6	X	0.0	2.4	0.0	X
	Process Heating	3.7	X	X	2.4	0.0	X
	Process Cooling and Refrigeration	2.6	X	X	0.0	X	X
	Machine Drive	1.9	X	0.0	0.0	0.0	X
	Electro-Chemical Processes	X	--	--	--	--	--
	Other Process Use	0.0	X	X	0.0	0.0	X
	<b>Direct Uses-Total Nonprocess</b>	3.1	X	3.4	1.8	1.3	X
	Facility HVAC (f)	4.8	X	0.0	1.8	0.6	X
	Facility Lighting	1.7	--	--	--	--	--
	Other Facility Support	3.3	X	9.7	3.8	0.0	X



Onsite Transportation	0.0	--	3.4	X	13.3	--
Conventional Electricity Generation	--	X	X	X	X	X
Other Nonprocess Use	28.2	X	0.0	X	0.0	X
<b>End Use Not Reported</b>	X	X	X	X	1.0	X

**331315 Aluminum Sheet, Plate and Foils**

<b>TOTAL FUEL CONSUMPTION</b>	0.0	X	0.0	0.0	0.0	X
<b>Indirect Uses-Boiler Fuel</b>	0.0	X	0.0	0.0	X	X
Conventional Boiler Use	0.0	X	X	0.0	X	X
CHP and/or Cogeneration Process	--	X	0.0	0.0	X	X
<b>Direct Uses-Total Process</b>	0.0	X	0.0	0.0	0.0	X
Process Heating	0.0	X	X	0.0	0.0	X
Process Cooling and Refrigeration	0.0	X	X	X	X	X
Machine Drive	0.0	X	0.0	0.0	0.0	X
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	0.0	X	0.0	0.0	0.0	X
<b>Direct Uses-Total Nonprocess</b>	0.0	X	0.0	0.0	0.0	X
Facility HVAC (f)	0.0	X	X	0.0	X	X
Facility Lighting	0.0	--	--	--	--	--
Other Facility Support	0.0	X	X	0.0	X	X
Onsite Transportation	0.0	--	0.0	X	0.0	--
Conventional Electricity Generation	--	X	X	X	X	X
Other Nonprocess Use	X	X	0.0	X	0.0	X
<b>End Use Not Reported</b>	X	X	X	X	X	X

**331318 Other Aluminum Rolling, Drawing and Extruding**

<b>TOTAL FUEL CONSUMPTION</b>	1.2	X	0.3	0.4	2.3	X
<b>Indirect Uses-Boiler Fuel</b>	0.3	X	X	0.5	13.6	X
Conventional Boiler Use	0.3	X	X	0.0	0.0	X
CHP and/or Cogeneration Process	--	X	X	0.7	14.0	X
<b>Direct Uses-Total Process</b>	1.4	X	0.0	0.5	2.1	X
<b>Process Heating</b>	2.8	X	0.0	0.4	2.7	X
Process Cooling and Refrigeration	2.0	X	X	8.7	0.0	X
Machine Drive	1.2	X	X	4.0	0.1	X
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	0.8	X	X	3.2	0.0	X
<b>Direct Uses-Total Nonprocess</b>	0.8	X	0.3	1.3	2.8	X

Facility HVAC (f)	1.0	X	0.0	1.3	0.0	X
Facility Lighting	0.9	--	--	--	--	--
Other Facility Support	1.8	X	X	2.4	0.0	X
Onsite Transportation	2.0	--	0.3	27.8	3.0	--
Conventional Electricity Generation	--	X	X	72.2	X	X
Other Nonprocess Use	1.6	X	X	X	0.0	X
<b>End Use Not Reported</b>	0.0	X	X	0.0	0.0	X

**3314 Nonferrous Metals, except Aluminum**

<b>TOTAL FUEL CONSUMPTION</b>	0.9	X	5.2	1.3	1.9	X
<b>Indirect Uses-Boiler Fuel</b>	3.3	X	0.0	1.0	0.0	X
Conventional Boiler Use	3.3	X	X	0.7	0.0	X
CHP and/or Cogeneration Process	--	X	0.0	1.4	0.0	X
<b>Direct Uses-Total Process</b>	0.8	X	1.7	1.6	0.8	X
Process Heating	1.7	X	0.0	1.6	0.2	X
Process Cooling and Refrigeration	1.5	X	X	0.0	0.0	X
Machine Drive	1.7	X	2.3	15.3	6.3	X
Electro-Chemical Processes	0.9	--	--	--	--	--
Other Process Use	1.4	X	X	4.1	31.4	X
<b>Direct Uses-Total Nonprocess</b>	2.1	X	8.2	5.9	5.0	X
Facility HVAC (f)	2.1	X	0.6	6.1	21.0	X
Facility Lighting	2.1	--	--	--	--	--
Other Facility Support	5.2	X	60.2	7.5	4.6	X
Onsite Transportation	9.0	--	9.4	0.0	3.6	--
Conventional Electricity Generation	--	X	0.9	3.5	0.0	X
Other Nonprocess Use	0.3	X	0.1	14.2	43.8	X
<b>End Use Not Reported</b>	2.0	X	X	26.7	12.2	X

**331410 Nonferrous Metal (except Aluminum) Smelting and Refining**

<b>TOTAL FUEL CONSUMPTION</b>	0.6	X	0.2	1.3	3.1	X
<b>Indirect Uses-Boiler Fuel</b>	0.0	X	0.0	0.0	0.0	X
Conventional Boiler Use	0.0	X	X	0.0	X	X
CHP and/or Cogeneration Process	--	X	0.0	0.0	0.0	X
<b>Direct Uses-Total Process</b>	0.6	X	0.0	0.1	0.4	X
Process Heating	0.2	X	0.0	0.1	0.0	X
Process Cooling and Refrigeration	0.7	X	X	0.0	X	X
Machine Drive	1.0	X	0.0	0.0	0.7	X

Electro-Chemical Processes	0.9	--	--	--	--	--
Other Process Use	1.6	X	X	0.0	0.0	X
<b>Direct Uses-Total Nonprocess</b>	1.4	X	0.4	17.7	8.4	X
Facility HVAC (f)	1.9	X	0.0	19.7	0.0	X
Facility Lighting	1.5	--	--	--	--	--
Other Facility Support	2.2	X	60.2	35.3	0.0	X
Onsite Transportation	0.0	--	0.1	0.0	9.5	--
Conventional Electricity Generation	--	X	2.9	0.0	X	X
Other Nonprocess Use	X	X	0.0	X	69.2	X
<b>End Use Not Reported</b>	0.0	X	X	X	0.0	X

**3315 Foundries**

<b>TOTAL FUEL CONSUMPTION</b>	0.9	89.7	1.6	0.9	1.8	0.9
<b>Indirect Uses-Boiler Fuel</b>	8.2	X	0.0	4.9	0.0	X
Conventional Boiler Use	8.2	X	0.0	16.2	0.0	X
CHP and/or Cogeneration Process	--	X	0.0	4.7	0.0	X
<b>Direct Uses-Total Process</b>	0.9	89.7	8.9	0.9	3.4	0.9
Process Heating	1.0	X	12.9	1.0	4.4	45.8
Process Cooling and Refrigeration	4.2	X	0.0	1.3	37.4	X
Machine Drive	1.1	89.7	1.8	4.7	5.6	X
Electro-Chemical Processes	42.7	--	--	--	--	--
Other Process Use	2.5	X	0.0	7.2	0.6	0.0
<b>Direct Uses-Total Nonprocess</b>	1.5	X	1.2	1.8	2.2	X
Facility HVAC (f)	2.0	X	43.1	1.9	2.4	X
Facility Lighting	1.1	--	--	--	--	--
Other Facility Support	2.5	X	11.8	4.5	26.9	X
Onsite Transportation	5.3	--	1.0	8.1	2.5	--
Conventional Electricity Generation	--	X	0.0	3.6	X	X
Other Nonprocess Use	40.9	X	15.4	1.7	6.7	X
<b>End Use Not Reported</b>	7.6	X	X	1.0	11.7	X

**331511 Iron Foundries**

<b>TOTAL FUEL CONSUMPTION</b>	1.5	X	0.8	2.0	4.5	0.0
<b>Indirect Uses-Boiler Fuel</b>	14.5	X	0.0	27.3	0.0	X
Conventional Boiler Use	14.5	X	0.0	0.0	0.0	X
CHP and/or Cogeneration Process	--	X	0.0	35.2	X	X
<b>Direct Uses-Total Process</b>	1.5	X	0.5	1.6	9.9	0.0

Process Heating	1.3	X	0.1	1.9	19.4	X
Process Cooling and Refrigeration	1.8	X	X	96.5	96.5	X
Machine Drive	1.9	X	5.6	0.1	14.2	X
Electro-Chemical Processes	50.2	--	--	--	--	--
Other Process Use	3.2	X	X	1.4	0.1	0.0
<b>Direct Uses-Total Nonprocess</b>	2.9	X	0.9	3.4	4.9	X
Facility HVAC (f)	4.5	X	8.9	3.5	1.7	X
Facility Lighting	2.0	--	--	--	--	--
Other Facility Support	4.5	X	X	2.8	23.0	X
Onsite Transportation	10.9	--	0.9	49.4	6.8	--
Conventional Electricity Generation	--	X	0.0	X	X	X
Other Nonprocess Use	0.0	X	36.4	0.0	7.4	X
<b>End Use Not Reported</b>	0.0	X	X	0.0	14.0	X

**331523 Nonferrous Metal Die-Casting Foundries**

<b>TOTAL FUEL CONSUMPTION</b>	1.2	89.7	5.6	1.6	1.4	X
<b>Indirect Uses-Boiler Fuel</b>	2.7	X	0.0	2.9	0.0	X
Conventional Boiler Use	2.7	X	0.0	8.8	0.0	X
CHP and/or Cogeneration Process	--	X	0.0	3.3	0.0	X
<b>Direct Uses-Total Process</b>	1.3	89.7	0.0	1.8	0.8	X
Process Heating	2.6	X	0.0	1.9	0.6	X
Process Cooling and Refrigeration	1.8	X	0.0	4.2	45.1	X
Machine Drive	1.7	89.7	0.0	10.5	14.9	X
Electro-Chemical Processes	4.1	--	--	--	--	--
Other Process Use	0.1	X	0.0	0.6	74.8	X
<b>Direct Uses-Total Nonprocess</b>	1.1	X	6.8	1.4	3.0	X
Facility HVAC (f)	0.9	X	0.0	1.5	1.5	X
Facility Lighting	1.4	--	--	--	--	--
Other Facility Support	3.5	X	0.0	4.9	58.3	X
Onsite Transportation	4.7	--	10.4	14.7	3.1	--
Conventional Electricity Generation	--	X	0.0	0.0	X	X
Other Nonprocess Use	0.0	X	0.0	X	X	X
<b>End Use Not Reported</b>	0.7	X	X	1.1	0.0	X

**331524 Aluminum Foundries, except Die-Casting**

<b>TOTAL FUEL CONSUMPTION</b>	1.1	X	1.6	1.3	2.9	X
<b>Indirect Uses-Boiler Fuel</b>	4.4	X	X	0.1	0.0	X

Conventional Boiler Use	4.4	X	X	4.5	0.0	X
CHP and/or Cogeneration Process	--	X	X	0.1	0.0	X
<b>Direct Uses-Total Process</b>	<b>1.0</b>	<b>X</b>	<b>23.7</b>	<b>1.4</b>	<b>4.3</b>	<b>X</b>
Process Heating	1.9	X	41.1	1.5	4.6	X
Process Cooling and Refrigeration	7.1	X	X	0.1	0.0	X
Machine Drive	1.0	X	6.9	1.1	1.3	X
Electro-Chemical Processes	0.3	--	--	--	--	--
Other Process Use	20.4	X	0.0	25.7	0.0	X
<b>Direct Uses-Total Nonprocess</b>	<b>1.7</b>	<b>X</b>	<b>0.0</b>	<b>1.4</b>	<b>1.5</b>	<b>X</b>
Facility HVAC (f)	1.7	X	0.0	1.6	5.0	X
Facility Lighting	2.3	--	--	--	--	--
Other Facility Support	5.0	X	0.0	3.1	85.4	X
Onsite Transportation	3.9	--	0.0	0.1	1.3	--
Conventional Electricity Generation	--	X	X	3.0	X	X
Other Nonprocess Use	0.0	X	0.0	X	X	X
<b>End Use Not Reported</b>	<b>24.4</b>	<b>X</b>	<b>X</b>	<b>0.0</b>	<b>80.9</b>	<b>X</b>

**332 FABRICATED METAL PRODUCTS**

<b>TOTAL FUEL CONSUMPTION</b>	<b>10.0</b>	<b>X</b>	<b>69.1</b>	<b>16.1</b>	<b>18.3</b>	<b>70.3</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>40.3</b>	<b>X</b>	<b>99.5</b>	<b>35.3</b>	<b>77.6</b>	<b>X</b>
Conventional Boiler Use	40.3	X	X	59.0	99.5	X
CHP and/or Cogeneration Process	--	X	99.5	40.8	99.5	X
<b>Direct Uses-Total Process</b>	<b>10.8</b>	<b>X</b>	<b>55.1</b>	<b>21.5</b>	<b>40.3</b>	<b>X</b>
Process Heating	19.3	X	X	22.4	57.1	X
Process Cooling and Refrigeration	34.3	X	X	95.5	X	X
Machine Drive	11.5	X	61.1	62.2	50.9	X
Electro-Chemical Processes	70.4	--	--	--	--	--
Other Process Use	33.3	X	99.5	91.8	87.8	X
<b>Direct Uses-Total Nonprocess</b>	<b>11.8</b>	<b>X</b>	<b>74.5</b>	<b>14.5</b>	<b>21.4</b>	<b>70.3</b>
Facility HVAC (f)	13.1	X	99.5	14.3	35.9	70.3
Facility Lighting	13.2	--	--	--	--	--
Other Facility Support	16.8	X	99.5	45.8	97.6	X
Onsite Transportation	31.9	--	83.5	68.5	26.5	--
Conventional Electricity Generation	--	X	99.5	95.5	X	X
Other Nonprocess Use	49.1	X	99.5	X	96.5	X
<b>End Use Not Reported</b>	<b>54.7</b>	<b>X</b>	<b>X</b>	<b>76.1</b>	<b>59.0</b>	<b>X</b>

**333 MACHINERY**

<b>TOTAL FUEL CONSUMPTION</b>	17.1	99.0	29.7	13.0	28.0	99.0
<b>Indirect Uses-Boiler Fuel</b>	40.3	99.0	0.0	24.0	86.0	X
Conventional Boiler Use	40.3	X	X	53.4	X	X
CHP and/or Cogeneration Process	--	99.0	0.0	25.9	86.0	X
<b>Direct Uses-Total Process</b>	19.9	X	38.6	23.6	63.5	X
Process Heating	23.8	X	99.0	28.6	70.6	X
Process Cooling and Refrigeration	19.9	X	X	71.2	X	X
Machine Drive	23.7	X	52.0	41.0	47.1	X
Electro-Chemical Processes	56.2	--	--	--	--	--
Other Process Use	49.5	X	39.6	38.5	56.3	X
<b>Direct Uses-Total Nonprocess</b>	15.3	99.0	44.2	13.1	20.9	99.0
Facility HVAC (f)	14.1	99.0	58.4	13.3	34.5	99.0
Facility Lighting	18.4	--	--	--	--	--
Other Facility Support	19.9	X	X	37.0	94.2	X
Onsite Transportation	21.3	--	55.0	49.4	21.0	--
Conventional Electricity Generation	--	X	79.4	60.8	99.0	X
Other Nonprocess Use	75.7	X	38.8	41.9	24.1	X
<b>End Use Not Reported</b>	74.4	X	X	94.8	59.5	X

**334 COMPUTER AND ELECTRONIC PRODUCTS**

<b>TOTAL FUEL CONSUMPTION</b>	6.7	0.0	57.2	10.4	48.0	X
<b>Indirect Uses-Boiler Fuel</b>	30.4	0.0	23.7	11.6	0.0	X
Conventional Boiler Use	30.4	X	13.5	15.6	0.0	X
CHP and/or Cogeneration Process	--	0.0	26.4	8.5	X	X
<b>Direct Uses-Total Process</b>	7.6	X	88.3	16.7	69.0	X
Process Heating	8.6	X	88.8	9.7	74.1	X
Process Cooling and Refrigeration	22.4	X	X	39.8	X	X
Machine Drive	5.9	X	28.2	74.9	71.8	X
Electro-Chemical Processes	12.7	--	--	--	--	--
Other Process Use	3.9	X	27.9	7.1	X	X
<b>Direct Uses-Total Nonprocess</b>	7.9	0.0	39.4	17.1	54.6	X
Facility HVAC (f)	7.3	0.0	64.6	18.4	82.7	X
Facility Lighting	14.7	--	--	--	--	--
Other Facility Support	9.9	X	59.2	22.9	55.0	X
Onsite Transportation	21.7	--	13.6	96.2	42.5	--
Conventional Electricity Generation	--	X	5.6	96.2	X	X
Other Nonprocess Use	21.6	X	11.0	3.1	9.6	X
<b>End Use Not Reported</b>	28.0	X	X	29.2	0.0	X

**334413 Semiconductors and Related Devices**

<b>TOTAL FUEL CONSUMPTION</b>	3.3	0.0	1.2	3.6	13.2	X
<b>Indirect Uses-Boiler Fuel</b>	6.2	0.0	0.0	1.2	0.0	X
Conventional Boiler Use	6.2	X	0.0	1.6	0.0	X
CHP and/or Cogeneration Process	--	0.0	0.0	2.0	X	X
<b>Direct Uses-Total Process</b>	2.3	X	22.6	3.5	65.3	X
Process Heating	5.8	X	X	1.6	65.3	X
Process Cooling and Refrigeration	3.4	X	X	X	X	X
Machine Drive	3.4	X	28.2	X	X	X
Electro-Chemical Processes	6.6	--	--	--	--	--
Other Process Use	2.7	X	27.9	7.2	X	X
<b>Direct Uses-Total Nonprocess</b>	7.3	X	3.4	10.1	12.7	X
Facility HVAC (f)	8.2	X	23.2	12.0	65.3	X
Facility Lighting	4.8	--	--	--	--	--
Other Facility Support	2.2	X	59.2	2.5	3.7	X
Onsite Transportation	5.0	--	0.1	X	0.6	--
Conventional Electricity Generation	--	X	2.0	X	X	X
Other Nonprocess Use	21.9	X	5.7	1.4	0.0	X
<b>End Use Not Reported</b>	1.2	X	X	0.0	0.0	X

**335 ELEC. EQUIP., APPLIANCES, COMPONENTS**

<b>TOTAL FUEL CONSUMPTION</b>	8.8	47.2	23.6	15.1	24.5	X
<b>Indirect Uses-Boiler Fuel</b>	74.6	X	91.3	35.0	98.9	X
Conventional Boiler Use	74.6	X	91.3	31.7	X	X
CHP and/or Cogeneration Process	--	X	X	53.9	98.9	X
<b>Direct Uses-Total Process</b>	8.5	X	62.3	17.0	61.8	X
Process Heating	16.3	X	X	18.1	63.8	X
Process Cooling and Refrigeration	16.1	X	X	66.7	X	X
Machine Drive	9.9	X	41.4	50.5	X	X
Electro-Chemical Processes	42.5	--	--	--	--	--
Other Process Use	29.8	X	98.4	52.4	79.4	X
<b>Direct Uses-Total Nonprocess</b>	12.5	47.2	25.6	13.9	25.5	X
Facility HVAC (f)	12.3	X	X	13.1	44.4	X
Facility Lighting	14.2	--	--	--	--	--
Other Facility Support	14.1	X	X	40.7	X	X
Onsite Transportation	22.3	--	26.8	87.7	26.4	--

Conventional Electricity Generation	--	X	86.8	87.7	X	X
Other Nonprocess Use	85.5	47.2	48.4	95.7	95.9	X
<b>End Use Not Reported</b>	58.2	X	X	58.4	55.0	X

**336 TRANSPORTATION EQUIPMENT**

<b>TOTAL FUEL CONSUMPTION</b>	9.1	10.2	26.4	8.5	13.5	X
<b>Indirect Uses-Boiler Fuel</b>	6.8	0.0	2.4	6.1	33.4	X
Conventional Boiler Use	6.8	0.0	0.0	4.9	37.2	X
CHP and/or Cogeneration Process	--	0.0	65.7	11.8	58.9	X
<b>Direct Uses-Total Process</b>	11.5	91.0	43.2	13.8	20.5	X
Process Heating	23.5	X	X	14.7	27.7	X
Process Cooling and Refrigeration	29.9	X	X	24.7	21.6	X
Machine Drive	13.5	X	48.4	19.8	70.6	X
Electro-Chemical Processes	17.5	--	--	--	--	--
Other Process Use	20.7	91.0	32.8	37.6	32.6	X
<b>Direct Uses-Total Nonprocess</b>	6.5	61.5	21.8	14.4	15.3	X
Facility HVAC (f)	6.8	X	34.3	15.3	17.8	X
Facility Lighting	10.0	--	--	--	--	--
Other Facility Support	9.2	X	0.2	12.7	11.5	X
Onsite Transportation	17.8	--	24.0	47.3	17.3	--
Conventional Electricity Generation	--	X	38.5	1.1	0.0	X
Other Nonprocess Use	26.7	61.5	16.4	8.4	25.6	X
<b>End Use Not Reported</b>	56.0	X	X	38.5	7.1	X

**336111 Automobiles**

<b>TOTAL FUEL CONSUMPTION</b>	0.0	X	0.0	0.0	0.0	X
<b>Indirect Uses-Boiler Fuel</b>	0.0	X	X	0.0	X	X
Conventional Boiler Use	0.0	X	X	0.0	X	X
CHP and/or Cogeneration Process	--	X	X	0.0	X	X
<b>Direct Uses-Total Process</b>	0.0	X	0.0	0.0	0.0	X
Process Heating	0.0	X	X	0.0	0.0	X
Process Cooling and Refrigeration	0.0	X	X	0.0	0.0	X
Machine Drive	0.0	X	0.0	0.0	0.0	X
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	0.0	X	0.0	0.0	0.0	X
<b>Direct Uses-Total Nonprocess</b>	0.0	X	0.0	0.0	0.0	X
Facility HVAC (f)	0.0	X	X	0.0	0.0	X



Facility Lighting	0.0	--	--	--	--	--
Other Facility Support	0.0	X	X	0.0	0.0	X
Onsite Transportation	0.0	--	0.0	X	0.0	--
Conventional Electricity Generation	--	X	0.0	0.0	0.0	X
Other Nonprocess Use	0.0	X	0.0	X	0.0	X
<b>End Use Not Reported</b>	0.0	X	X	0.0	0.0	X

**336112 Light Trucks and Utility Vehicles**

<b>TOTAL FUEL CONSUMPTION</b>	0.0	X	0.0	0.0	0.0	X
<b>Indirect Uses-Boiler Fuel</b>	0.0	X	X	0.0	0.0	X
Conventional Boiler Use	0.0	X	X	0.0	0.0	X
CHP and/or Cogeneration Process	--	X	X	0.0	X	X
<b>Direct Uses-Total Process</b>	0.0	X	0.0	0.0	0.0	X
Process Heating	0.0	X	X	0.0	0.0	X
Process Cooling and Refrigeration	0.0	X	X	0.0	X	X
Machine Drive	0.0	X	0.0	0.0	0.0	X
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	0.0	X	X	0.0	0.0	X
<b>Direct Uses-Total Nonprocess</b>	0.0	X	0.0	0.0	0.0	X
Facility HVAC (f)	0.0	X	X	0.0	0.0	X
Facility Lighting	0.0	--	--	--	--	--
Other Facility Support	0.0	X	0.0	0.0	X	X
Onsite Transportation	0.0	--	0.0	0.0	0.0	--
Conventional Electricity Generation	--	X	0.0	0.0	X	X
Other Nonprocess Use	0.0	X	0.0	X	X	X
<b>End Use Not Reported</b>	X	X	X	0.0	0.0	X

**3364 Aerospace Products**

<b>TOTAL FUEL CONSUMPTION</b>	4.1	0.0	3.9	2.8	18.5	X
<b>Indirect Uses-Boiler Fuel</b>	11.5	0.0	2.4	2.6	36.7	X
Conventional Boiler Use	11.5	X	0.0	4.2	38.9	X
CHP and/or Cogeneration Process	--	0.0	65.7	1.0	0.0	X
<b>Direct Uses-Total Process</b>	3.5	X	4.5	4.1	7.0	X
Process Heating	3.2	X	X	5.0	0.8	X
Process Cooling and Refrigeration	5.6	X	X	0.0	22.0	X
Machine Drive	4.1	X	0.0	7.8	61.7	X
Electro-Chemical Processes	15.7	--	--	--	--	--

Other Process Use	9.1	X	5.4	6.0	14.5	X
<b>Direct Uses-Total Nonprocess</b>	<b>6.1</b>	<b>X</b>	<b>8.3</b>	<b>2.7</b>	<b>21.3</b>	<b>X</b>
Facility HVAC (f)	10.0	X	0.0	3.1	35.7	X
Facility Lighting	3.4	--	--	--	--	--
Other Facility Support	2.5	X	1.6	2.0	2.6	X
Onsite Transportation	4.9	--	9.7	2.0	6.7	--
Conventional Electricity Generation	--	X	31.4	45.9	0.0	X
Other Nonprocess Use	3.6	X	0.8	0.8	0.4	X
<b>End Use Not Reported</b>	<b>28.5</b>	<b>X</b>	<b>X</b>	<b>59.3</b>	<b>12.9</b>	<b>X</b>

**336411 Aircraft**

<b>TOTAL FUEL CONSUMPTION</b>	<b>10.0</b>	<b>X</b>	<b>8.0</b>	<b>1.6</b>	<b>52.7</b>	<b>X</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>4.2</b>	<b>X</b>	<b>0.0</b>	<b>0.7</b>	<b>74.6</b>	<b>X</b>
Conventional Boiler Use	4.2	X	0.0	0.1	74.6	X
CHP and/or Cogeneration Process	--	X	X	29.0	X	X
<b>Direct Uses-Total Process</b>	<b>2.8</b>	<b>X</b>	<b>0.0</b>	<b>5.1</b>	<b>X</b>	<b>X</b>
Process Heating	5.2	X	X	4.6	X	X
Process Cooling and Refrigeration	4.1	X	X	0.0	X	X
Machine Drive	3.0	X	0.0	25.6	X	X
Electro-Chemical Processes	6.4	--	--	--	--	--
Other Process Use	11.6	X	0.0	0.0	X	X
<b>Direct Uses-Total Nonprocess</b>	<b>14.8</b>	<b>X</b>	<b>10.6</b>	<b>1.8</b>	<b>54.6</b>	<b>X</b>
Facility HVAC (f)	22.3	X	X	1.9	88.6	X
Facility Lighting	2.4	--	--	--	--	--
Other Facility Support	1.7	X	0.0	1.1	X	X
Onsite Transportation	0.5	--	11.1	0.0	7.4	--
Conventional Electricity Generation	--	X	0.0	X	X	X
Other Nonprocess Use	73.8	X	15.6	X	X	X
<b>End Use Not Reported</b>	<b>0.0</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>47.4</b>	<b>X</b>

**337 FURNITURE AND RELATED PRODUCTS**

<b>TOTAL FUEL CONSUMPTION</b>	<b>8.9</b>	<b>X</b>	<b>60.4</b>	<b>12.4</b>	<b>24.6</b>	<b>75.8</b>
<b>Indirect Uses-Boiler Fuel</b>	<b>40.6</b>	<b>X</b>	<b>86.7</b>	<b>36.6</b>	<b>96.1</b>	<b>X</b>
Conventional Boiler Use	40.6	X	X	37.0	99.0	X
CHP and/or Cogeneration Process	--	X	86.7	50.4	90.9	X
<b>Direct Uses-Total Process</b>	<b>10.6</b>	<b>X</b>	<b>97.4</b>	<b>19.6</b>	<b>61.1</b>	<b>75.8</b>
Process Heating	24.2	X	X	21.8	70.3	75.8

Process Cooling and Refrigeration	28.5	X	X	78.7	99.0	X
Machine Drive	11.3	X	97.4	64.7	93.7	X
Electro-Chemical Processes	90.2	--	--	--	--	--
Other Process Use	41.7	X	X	63.5	63.7	X
<b>Direct Uses-Total Nonprocess</b>	9.5	X	57.1	14.9	27.4	75.8
Facility HVAC (f)	12.2	X	79.0	13.2	55.9	75.8
Facility Lighting	9.1	--	--	--	--	--
Other Facility Support	18.3	X	X	77.4	99.0	X
Onsite Transportation	22.0	--	30.2	81.7	20.6	--
Conventional Electricity Generation	--	X	78.8	52.4	99.0	X
Other Nonprocess Use	63.6	X	84.4	X	0.0	X
<b>End Use Not Reported</b>	59.9	X	X	78.3	90.6	X

**339 MISCELLANEOUS**

<b>TOTAL FUEL CONSUMPTION</b>	11.1	X	59.8	17.6	45.0	99.0
<b>Indirect Uses-Boiler Fuel</b>	33.3	X	99.0	35.8	87.5	X
Conventional Boiler Use	33.3	X	X	25.6	88.1	X
CHP and/or Cogeneration Process	--	X	99.0	45.3	99.0	X
<b>Direct Uses-Total Process</b>	11.8	X	19.5	23.9	64.7	99.0
Process Heating	19.6	X	0.0	26.0	70.1	99.0
Process Cooling and Refrigeration	26.0	X	X	58.8	X	X
Machine Drive	10.7	X	93.4	46.2	59.3	X
Electro-Chemical Processes	63.3	--	--	--	--	--
Other Process Use	61.8	X	X	64.9	X	X
<b>Direct Uses-Total Nonprocess</b>	11.9	X	65.0	17.7	36.6	X
Facility HVAC (f)	10.5	X	69.8	15.0	43.3	X
Facility Lighting	11.8	--	--	--	--	--
Other Facility Support	12.8	X	0.0	27.3	97.3	X
Onsite Transportation	17.7	--	24.4	91.6	56.8	--
Conventional Electricity Generation	--	X	92.6	93.9	X	X
Other Nonprocess Use	84.2	X	28.0	98.9	72.5	X
<b>End Use Not Reported</b>	46.3	X	X	82.6	82.9	X

(a) The Bureau of the Census classifies establishments using the 2017 North American Industry Classification System (NAICS).

(b) *Net Demand for Electricity* is the sum of purchases, transfers in, and total onsite electricity generation, minus sales and transfers offsite. It is the total amount of electricity used by establishments. *Net Demand for Electricity* is not directly comparable with *Net Electricity*, which specifically excludes electricity generated onsite by combustible energy sources.

(c) *Distillate Fuel Oil* includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.

(d) *Natural Gas* includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as independent gas producers, gas brokers, marketers, and any marketing subsidiaries of utilities.

(e) Hydrocarbon Gas Liquids (HGL) include ethane, ethylene, propane, propylene, normal butane, butylene, ethane-propane mixtures, propane-butane mixtures, and isobutane produced at

(e) Hydrocarbon Gas Liquids (HGL) include ethane, ethylene, propane, propylene, normal butane, butylene, ethane-propane mixtures, propane-butane mixtures, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw Natural Gas Liquids (NGL).

(f) Facility Heating, Ventilation, and Air Conditioning (*Facility HVAC*) excludes steam and hot water.

\* Estimate less than 0.5.

D=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error (RSE) is greater than 50 percent.

X=Not defined because RSE corresponds to a data table value of zero.

NA=Not available.

-- Estimation is not applicable.

S=Negative value.

Notes: Totals may not equal sum of components because of independent rounding. The estimates presented in this table are for the total consumption of energy (formerly total inputs of energy) for the production of heat, power, and electricity generation, regardless of where the energy was produced. Specifically, the estimates include the quantities of energy that were originally produced offsite and purchased by or transferred to the establishment, plus those that were produced onsite from other energy or input materials not classified as energy, or were extracted from captive (onsite) mines or wells. Allocations to specific end uses are made on the basis of reasonable approximations by respondents.

Source: U.S. Energy Information Administration, Office of Energy Demand and Integrated Statistics, Form EIA-846, *2018 Manufacturing Energy Consumption Survey*.

*The Census Bureau has reviewed this data product for unauthorized disclosure of confidential information and has approved the disclosure avoidance practices applied (Approval ID: CBDRB-FY20-260).*