

**COAL COMBUSTION PRODUCTS STATISTICS**  
**U.S. GEOLOGICAL SURVEY**  
 [All values in metric tons]  
 Last modification: November 7, 2006

Year	Fly ash production	Fly ash used	Bottom ash production	Bottom ash used	Boiler slag production	Boiler slag used	FGD material production	FGD material used	FBC ash production	FBC ash used	Total CCP production	Total CCP apparent consumption
1966	15,500,000	1,270,000	7,350,000	1,540,000							22,900,000	2,810,000
1967	16,700,000	1,270,000	8,260,000	2,090,000							24,900,000	3,360,000
1968	18,000,000	1,720,000	6,620,000	1,630,000	2,360,000	1,360,000					26,900,000	4,720,000
1969	19,100,000	1,720,000	6,890,000	1,810,000	2,630,000	907,000					28,700,000	4,450,000
1970	24,000,000	2,000,000	8,980,000	1,630,000	2,540,000	998,000					35,600,000	4,630,000
1971	25,200,000	2,990,000	9,160,000	1,450,000	4,540,000	3,360,000					38,900,000	7,800,000
1972	28,800,000	3,270,000	9,710,000	2,360,000	3,450,000	1,180,000					42,000,000	6,800,000
1973	31,400,000	3,540,000	9,710,000	2,090,000	3,630,000	1,630,000					44,700,000	7,260,000
1974	36,700,000	3,080,000	13,000,000	2,630,000	4,350,000	2,180,000					54,000,000	7,890,000
1975	38,400,000	4,080,000	11,900,000	3,180,000	4,170,000	1,630,000					54,400,000	8,890,000
1976	38,800,000	5,170,000	13,000,000	4,080,000	4,350,000	2,000,000					56,200,000	11,200,000
1977	44,000,000	5,720,000	12,800,000	4,170,000	4,720,000	2,810,000					61,500,000	12,700,000
1978	43,800,000	7,620,000	13,300,000	4,540,000	4,640,000	2,720,000					61,800,000	14,900,000
1979	52,200,000	9,070,000	11,300,000	2,990,000	4,720,000	2,180,000					68,200,000	14,200,000
1980	43,800,000	5,820,000	13,100,000	3,860,000	3,300,000	1,590,000					60,200,000	11,300,000
1981	45,600,000	8,540,000	11,700,000	3,690,000	4,700,000	2,660,000					62,000,000	14,900,000
1982	43,500,000	7,210,000	11,900,000	3,290,000	3,960,000	1,790,000					59,300,000	12,300,000
1983	42,800,000	6,820,000	11,500,000	2,500,000	3,570,000	2,300,000					57,900,000	11,600,000
1984	46,600,000	9,460,000	12,400,000	2,690,000	3,820,000	2,400,000					62,700,000	14,600,000
1985	43,800,000	10,300,000	11,900,000	3,720,000	3,310,000	2,160,000					59,100,000	16,200,000
1986	44,700,000	7,960,000	12,200,000	3,250,000	3,750,000	1,950,000					60,600,000	13,200,000
1987	45,500,000	10,000,000	13,400,000	4,330,000	3,740,000	2,210,000	12,900,000	925,000			75,400,000	17,500,000
1988	46,200,000	10,300,000	12,900,000	4,930,000	4,560,000	2,570,000	12,300,000	844,000			76,000,000	18,600,000
1989	48,400,000	9,210,000	12,900,000	4,400,000	3,870,000	2,290,000	14,200,000	103,000			79,300,000	16,000,000
1990	44,400,000	11,300,000	12,400,000	4,860,000	4,740,000	2,950,000	17,200,000	196,000			78,700,000	19,300,000
1991	46,500,000	12,000,000	12,100,000	4,540,000	5,490,000	3,270,000	16,400,000	318,000			80,500,000	20,100,000
1992	43,600,000	11,900,000	12,600,000	3,510,000	3,730,000	2,810,000	14,400,000	260,000			74,400,000	18,500,000
1993	43,400,000	9,540,000	12,900,000	3,840,000	5,660,000	3,110,000	18,500,000	1,050,000			80,400,000	17,500,000
1994	49,800,000	11,700,000	13,500,000	4,610,000	3,440,000	2,830,000	14,100,000	850,000			80,800,000	20,000,000
1995	49,200,000	12,300,000	13,800,000	4,600,000	2,550,000	2,440,000	18,300,000	1,340,000			83,700,000	20,700,000
1996	53,900,000	14,700,000	14,600,000	4,430,000	2,360,000	2,170,000	21,700,000	1,500,000			92,400,000	22,800,000
1997	54,700,000	17,500,000	15,400,000	4,600,000	2,490,000	2,340,000	22,800,000	1,980,000			95,400,000	26,500,000
1998	57,200,000	19,200,000	15,200,000	4,760,000	2,710,000	2,170,000	22,700,000	2,260,000			97,800,000	28,400,000
1999	56,900,000	18,900,000	15,300,000	4,930,000	2,620,000	2,150,000	22,300,000	4,030,000			97,100,000	30,000,000
2000	57,100,000	17,600,000	15,400,000	4,460,000	2,430,000	2,120,000	23,300,000	4,380,000			98,200,000	28,600,000
2001	61,800,000	20,000,000	17,000,000	5,180,000	2,300,000	1,650,000	25,800,000	6,880,000			107,000,000	33,700,000

**COAL COMBUSTION PRODUCTS STATISTICS**

**U.S. GEOLOGICAL SURVEY**

[All values in metric tons]

Last modification: November 7, 2006

<b>Year</b>	<b>Fly ash production</b>	<b>Fly ash used</b>	<b>Bottom ash production</b>	<b>Bottom ash used</b>	<b>Boiler slag production</b>	<b>Boiler slag used</b>	<b>FGD material production</b>	<b>FGD material used</b>	<b>FBC ash production</b>	<b>FBC ash used</b>	<b>Total CCP production</b>	<b>Total CCP apparent consumption</b>
2002	69,400,000	24,200,000	18,000,000	6,980,000	1,740,000	1,400,000	26,500,000	7,890,000	1,130,000	865,000	117,000,000	41,300,000
2003	63,700,000	24,600,000	16,400,000	7,490,000	1,670,000	1,590,000	28,000,000	8,150,000	723,000	239,000	110,000,000	42,100,000
2004	64,300,000	25,500,000	15,600,000	7,400,000	2,000,000	1,790,000	28,500,000	9,460,000	787,000	430,000	111,000,000	44,600,000

<sup>1</sup>Compiled by T.D. Kelly (retired) and D.E. Sullivan.

Data are calculated, estimated, or reported. See notes for more information.

## Coal Combustion Products Worksheet Notes

### Data Sources

For the years 1994–2001, data were recorded from the Minerals Yearbook (MYB). For the years 2002–04, data were recorded from Coal Ash Association's Coal Combustion Product (CCP) Production and Use Survey (American Coal and Ash Association, Inc.). For the years 1966–93, data were recorded from the American Coal and Ash Association's Coal Combustion Byproduct (CCB) Production and Use: 1966–1994 (CCBPU).

### Production

Data were recorded from the MYB and CCBPU for fly ash, bottom ash, boiler slag, and flue gas desulfurization (FGD) material. Data were not available for the years 1966 and 1967 for boiler slag, and the years 1966–86 for FGD material. FBC (Fluid Bed Combustion) ash is reported for the first time in the year 2002. In prior years, FBC ash was reported as flyash.

### Used

Boiler slag, bottom ash, fly ash, and FGD material are reported in the MYB and CCBPU. Data were not available for the years 1966 and 1967 for boiler slag, and the years 1966–86 for FGD material. FBC (Fluid Bed Combustion) ash is reported for the first time in the year 2002.

### Total CCP Production

Total CCP production represents the sum of boiler slag, bottom ash, fly ash, FBC ash, and FGD material produced. The boiler slag, FBC ash, and FGD material are not included for the years in which the data were not available.

### Total Apparent Consumption

Total CCP apparent consumption represents the sum of boiler slag, bottom ash, fly ash, FBC ash, and FGD material produced. The boiler slag, FBC ash, and FGD material are not included for the years in which the data were not available.

### References

- American Coal Ash Association, Inc., 1996, Coal combustion byproduct (CCB) production and use: 1966–1994, 59 p.
- American Coal Ash Association, Inc., 2004, Coal combustion product (CCP) production and use survey, accessed November 6, 2006, at URL <http://www.aaa-usa.org/>.
- U.S. Geological Survey, 1997–2003, Minerals Yearbook, v. I, 1995–2001.

### Recommended Citation Format:

U.S. Geological Survey, [year of last update, e.g., 2005], [Mineral commodity, e.g., Gold] statistics, *in* Kelly, T.D., and Matos, G.R., comps., Historical statistics for mineral and material commodities in the United States: U.S. Geological Survey Data Series 140, available online at <http://pubs.usgs.gov/ds/2005/140/>. (Accessed [date].)

Coal combustion products are no longer monitored by the U.S. Geological Survey.

### For more information, please contact:

The American Coal Ash Association at URL <http://www.aaa-usa.org/>.