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2021 Coal Combustion Product (CCP) Production & Use Survey Report

Beneficial Utilization versus Production Totals (Short Tons)

2021 CCP Categories	Fly Ash	Bottom Ash	Boiler Slag	FGD Gypsum	FGD Material Wet Scrubbers	FGD Material Dry Scrubbers	FGD Other	FBC Ash	CCP Production / Utilization Totals
Total CCPs Produced by Category	28,004,916	8,783,796	1,195,311	19,688,381	7,032,003	4,284,941	63,578	8,310,124	77,363,050
Total CCPs Used by Category	18,787,042	3,591,948	734,652	14,890,701	0	226,109	0	8,310,124	46,540,576
1. Concrete/Concrete Products /Grout	11,936,154	617,000	0	32,395	0	38,183	0	0	12,623,732
2. Blended Cement/ Feed for Clinker	3,291,107	773,999	103,884	1,430,135	0	0	0	0	5,599,124
3. Flowable Fill	48,687	0	0	0	0	0	0	0	48,687
4. Structural Fills/Embankments	198,746	1,698,855	145,869	0	0	0	0	0	2,043,469
5. Road Base/Sub-base	74,702	95,608	0	0	0	0	0	0	170,309
6. Soil Modification/Stabilization	103,207	0	0	0	0	0	0	0	103,207
7. Mineral Filler in Asphalt	7,544	0	0	0	0	0	0	0	7,544
8. Snow and Ice Control	0	56,311	3,655	0	0	0	0	0	59,965
9. Blasting Grit/Roofing Granules	0	52,452	481,245	0	0	0	0	0	533,697
10. Mining Applications	87,636	0	0	0	0	31,465	0	8,310,124	8,429,225
11. Gypsum Panel Products (formerly Wallboard)	0	0	0	11,740,314	0	0	0	0	11,740,314
12. Waste Stabilization/Solidification	433,456	53,243	0	977	0	13,587	0	0	501,263
13. Agriculture	0	3,516	0	742,546	0	76,839	0	0	822,902
14. Aggregate	1,843	43	0	453,114	0	0	0	0	455,000
15. Oil/Gas Field Services	55,677	0	0	0	0	15,696	0	0	71,373
16. CCR Pond Closure Activities	2,351,905	150,696	0	449,700	0	0	0	0	2,952,301
17. Miscellaneous/Other	196,378	90,226	0	41,520	0	50,339	0	0	378,462

Summary Utilization to Production Rate

CCP Categories	Fly Ash	Bottom Ash	Boiler Slag	FGD Gypsum	FGD Material Wet Scrubbers	FGD Material Dry Scrubbers	FGD Other	FBC Ash	CCP Utilization Total
Totals by CCP Type/Application	18,787,042	3,591,948	734,652	14,890,701	0	226,109	0	8,310,124	46,540,576
Category Use to Production Rate (%)	67.08%	40.89%	61.46%	75.63%	0.00%	5.28%	0.00%	100.00%	60.16%

2021 Cenospheres Sold (Pounds) 107,835 Data in this survey represents 115.36786 GWs of Name Plate rating of the total industry wide approximate 210.141 GW capacity based on EIA's July 2021 Electric Power Monthly.

Notes:
 These are estimates for entire U.S. utility and IPP sectors calculated by dividing the survey respondents' data by the portion of the overall industry's coal burn they represent, as reported in the August 2021 EIA Electric Power Monthly (49%).