Ash Collection & Utilization 1978

(Million Tons)

	Fly Ash Tons x 10^6	Bottom Ash Tons x 10^6	Boiler Slag (if separated from Bottom Ash) Tons x 10^6
1. TOTAL ASH COLLECTED	48.3	14.7	5.1
2. ASH UTILIZED	8.4	5.0	3.0
3. UTILIZATION PERCENTAGE			
A. COMMERCIAL UTILIZATION			
a. Mixed with raw material before forming cement clinker	4	—	3
b. Mixed with cement clinker or mixed with cement (Type 1-P cement)	4	3	—
c. Partial replacement of cement in concrete and blocks	24	—	—
d. Lightweight aggregate	3	3	—
e. Fill material for roads, construction sites, land reclamation, ecology dikes, etc.	11	21	12
f. Stabilizer for road bases, parking areas, etc.	3	5	2
g. Filler in asphalt mix	10	—	—
h. Ice control	—	22	15
i. Blast grit and roofing granules	—	—	45
j. Miscellaneous	4	10	19
B. ASH REMOVED FROM PLANT SITES AT NO COST TO UTILITY	8	17	4
C. ASH UTILIZED FROM DISPOSAL SITES AFTER DISPOSAL COSTS	29	19	—
	100	100	100

Comparative Results

Ash Collected	**1966***	**1975**	**1976**	**1977**	**1978**
Fly Ash	17.1	42.3	42.8	48.5	48.3
Bottom Ash	8.1	13.1	14.3	14.1	14.7
Boiler Slag		4.6	4.8	5.2	5.1
TOTAL ASH COLLECTED—TONS x 10^6	25.2	60.0	61.9	67.8	68.1
Ash Utilized					
Fly Ash	1.4	4.5	5.7	6.3	8.4
Bottom Ash	1.7	3.5	4.5	4.6	5.0
Boiler Slag		1.8	2.2	3.1	3.0
TOTAL ASH UTILIZED—TONS x 10^6	3.1	9.8	12.4	14.0	16.4
Percent of Ash Utilized					
% Fly Ash	7.9	10.6	13.3	13.0	17.5
% Bottom Ash	21.0	26.7	31.5	32.6	33.0
% Boiler Slag		40.0	45.8	60.0	49.5
PERCENT OF TOTAL ASH UTILIZED	12.1	16.4	20.0	20.7	24.1

*First year that data was taken

**1967-1974 data omitted from tabulation because of space limitation.

ASH DISPOSAL DATA

1. 49% of the ash is trucked to the disposal area and 51% is sluiced.
2. 40% of the fly ash and bottom ash is separated before disposal and 60% is disposed of together.
3. 65% of the power plants have dry collecting and loading facilities for fly ash.

Compiled by the National Ash Association and Edison Electric Institute.