ASH COLLECTION & UTILIZATION 1977

(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	48.5	14.1	5.2
2. ASH UTILIZED	6.3	4.6	3.1
3. UTILIZATION PERCENTAGE			
A. COMMERCIAL UTILIZATION			
a. Mixed with raw material before forming cement clinker	7	---	3
b. Mixed with cement clinker or mixed with cement (Type 1-P cement)	5	2	---
c. Partial replacement of cement in concrete and blocks	25	---	---
d. Lightweight aggregate	2	3	---
e. Fill material for roads, construction sites, land reclamation, ecology dikes,etc.	20	20	8
f. Stabilizer for road bases, parking areas, etc.	3	5	2
g. Filler in asphalt mix	2	---	---
h. Ice control	---	22	13
i. Blast grit and roofing granules	---	---	48
j. Miscellaneous	3	9	22
B. ASH REMOVED FROM PLANT SITES AT NO COST TO UTILITY	7	17	4
C. ASH UTILIZED FROM DISPOSAL SITES AFTER DISPOSAL COSTS	26	22	---
	100	100	100

COMPARATIVE RESULTS

ASH COLLECTED	1966*	1974	1975	1976	1977
Fly Ash	17.1	40.4	42.3	42.8	48.5
Bottom Ash	8.1	14.3	13.1	14.3	14.1
Boiler Slag		4.8	4.6	4.8	5.2
TOTAL ASH COLLECTED-TONSx10^6	25.2	59.5	60.0	61.9	67.8
ASH UTILIZED					
Fly Ash	1.4	3.4	4.5	5.7	6.3
Bottom Ash	1.7	2.9	3.5	4.5	4.6
Boiler Slag		2.4	1.8	2.2	3.1
TOTAL ASH UTILIZED-TONSx10^6	3.1	8.7	9.8	12.4	14.0
PERCENT OF ASH UTILIZED					
% Fly Ash	7.9	8.4	10.6	13.3	13.0
% Bottom Ash	21.0	20.3	26.7	31.5	32.6
% Boiler Slag		50.0	40.0	45.8	60.0
PERCENT OF TOTAL ASH UTILIZED	12.1	14.6	16.4	20.0	20.7

*First year that data was taken
**1967-1973 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. 28% of the fly ash and bottom ash is separated before disposal and 72% is disposed of together.
3. 35% of the disposal ponds have some form of floating ash appearing.
4. 68% of the power plants have dry collecting and loading facilities for fly ash.

Compiled by the National Ash Association and Edison Electric Institute.