



District Heating



West Heating Plant
Washington, D. C.



Arlington Heating Plant
Arlington, Virginia



Central Heating Plant
Washington, D. C.

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...HAVE YOU HEARD!

Exposition to Feature Problems of Utilities

The first International Pollution Engineering Exposition, featuring sessions devoted to the problems of utilities, will be held in Cleveland, Ohio in December. The show's producer, Clapp & Polak, claims the exposition will have the largest collection of pollution control equipment ever assembled under one roof. More details on the exposition may be obtained by writing the producer at 245 Park Ave., New York, N.Y. 10017.

Tiny Acid Plant Utilizes SO₂ from Utility Stacks

A tiny sulfuric acid plant in Rhode Island will attempt to convert sulfur dioxide scrubber sludge from utility stack gases into sulfuric acid. Essex Chemical Corp., operator of the demonstration plant, believes it can substantially reduce the costs of sulfur dioxide removal from stack gases by paying utilities for the sludge, and still make an attractive profit. The sludge will come from scrubbers on plants operated by Boston Edison and Potomac Electric Power. The scrubbers remove sulfur dioxide by passing stack gas through a solution of magnesium oxide in water, which reacts with the sulfur dioxide to produce magnesium sulfite—the sludge. The two utilities will generate enough sludge to absorb the sulfuric acid plant's capacity of 50 tons per day.

Fly Ash May Be the Answer to Soil, Lake Reclamation

Fly ash spread over strip mines and coal-refuse piles may be an answer to land reclamation and acid soil, and it also may be possible to use it to reclaim lakes. The U.S. Bureau of Mines says fly ash mixed into strip spoil and coal refuse neutralizes the acid and changes soil texture to a silt loam, giving better conditions for root growth. The Notre Dame researchers say organic and inorganic phosphates as well as carbonaceous organic wastes in lakes can be filtered with fly ash. Meanwhile, construction use of fly ash in the Chicago area hit an all-time high in 1971. An estimated 1,120,000 tons were used for purposes such as building materials, county roads, as fill under concrete in primary roads, and in residential streets and driveways. In Britain, over six million tons of fly ash were sold in 1971 for structural fill.

System Converts Fly Ash into Harmless Landfill

Indianapolis Power & Light Co. and Monsanto Co. have announced an agreement for the design and construction of an experimental air pollution abatement system (CALSOX) that will convert sulfur oxides and fly ash to a mixture of calcium sulfate, calcium sulfite, and fly ash that can be discarded safely to landfill. If the pilot unit is successful, a demonstration plant will be built to handle 340,000 cu ft of stack gas per minute—enough to process the entire output of a 100,000 kw electric power plant. CALSOX uses a liquid organic material to absorb the sulfur oxides and calcium to regenerate the absorbent, thus converting pollutants to harmless by-products. The process is expected to remove 99 per cent of the fly ash, and 90 per cent of the sulfur dioxide from stack gas.

Air Pollution Control Cost

The U.S. Environmental Protection Agency estimates that by 1977 the nationwide costs of controlling air pollution may reach \$12.3 billion annually, but that the value of the benefits achieved by these controls will exceed \$14.2 billion a year. The estimates were in a report, "Economics of Clean Air," submitted to Congress. EPA also submitted a summary of its own achievements in a report entitled, "Progress in the Prevention and Control of Air Pollution," and expects soon to publish a two-volume manual listing all existing statutes and executive orders governing the agency.

District Heating in the U.S.S.R.

Homes, factories and other large buildings in cities in the southern part of the Soviet Union are going to be cooled by district systems. District heating systems already have proven to be technically and economically feasible and worthwhile.

Temperatures in some cities in the south of the country can reach 100 F, so a study was made to determine what type of cooling method might be used to make the summer heat more tolerable. Cost and efficiency figures for individual cooling units were not acceptable, but those for district cooling were more encouraging.

The first city to begin building a district cooling system was Tashkent, and now the first section of the system is almost completed; over a thousand homes and all of the public buildings in the area will be served by a central plant.



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