511 Meteorological Tools in Evaluating and Reducing Effects of Air Pollution. D.H. Pack. J. Air Poll. Control Assn. 14, 83-85 (March, 1964).

It is expected that the use of meteorology in air pollution programs will increase. More effort will be made to determine city ventilation rates and how best to measure them. Meteorological and air quality measurements within cities will be extended to greater altitudes in an attempt to determine the city air pollution "budget." Better instrumentation and increased use of computers will lead to more and better air pollution potential forecasts. More study will be given to the problems of interurban air pollution in the several rapidly developing megalopolis areas of the country. The author would summarize by saying that meteorological ideas must accompany meteorological instruments, and that this combination of instruments and ideas, in the setting of an interdisciplinary air pollution program can be used to achieve, more rapidly and more efficiently, cleaner air. There are 20 references.

512 Acid Soaked Soot Flakes in Flue Gases— Their Formation and Prevention. W. Grimm. Combustion 35, 38-47 (Sept. 1963).

Burning sulfur-containing fuels can result in discharge of acid-soaked soot flakes with the flue gas and cause a serious air pollution problem. Two solutions are possible: (1) prevent the discharge of unburned carbon, and (2) prevent the temperature of the flue gas from dropping below the sulfuric acid dewpoint. Both solutions involve improvements in design and operation of firing equipment, such as: (1) increase degree of atomization, (2) preheat combustion air, (3) arrange nozzles to match furnace shape, (4) prevent air leaking into flue gas path, (5) insulate metal stacks, (6) reduce excess combustion air, and (7) use low sulfur content fuels. The chemistry and mechanics of soot formation and deposition are discussed in detail as is the determination of acid dewpoint. -- Public Health Eng. Abstr.

513 Pollution Control in a Phosphoric Acid Plant. H.O. Grant. Chem. Eng. Progr. 60, 53-55 (Jan. 1964).

A program of modernization and expansion of a phosphate chemical company was designed to obtain desired improvements in fume emission control. The three major steps in the process were digestion, filtration, and evaporation. A bag-type dust collector with a capacity of 4,000 cubic feet per minute, and 99% efficiency was installed. Absorption was established as the most economical method of silicon tetra fluoride removal. Spray and packed towers, venturi, cyclone, and impact scrubbers were used. -- APCA Absts.

514 Cancer and Atmospheric Pollution. F.C. Pybus. Sanitarian 72, 169-180 (Dec. 1963).

A review of 50 years clinical experience of cancer in man and animals, and 30 years of personal research, shows that 90% of the disease was due to benzpyrene or other carcinogens in the smoke contaminated atmosphere. The objectionable smell of exhaust fumes and smoke from motor vehicles polluting the main thoroughfares, streets of cities, and towns, has been a matter of complaint. This smoke contains cancer producing benzpyrene and does cause cancer when tested on animals. Total coal and tobacco smoke benzpyrene content of the air, benzpyrene as a universal carcinogen, its distribution, leaf and wood smoke, and smoking and cancer are discussed. Results of studies made in England and Wales are shown. -- APCA Absts.

515 Further Investigations of Atmospheric Concentration of Lead. J. Cholak. Arch. Environmental Health 8, 314-324 (Feb. 1964).

The results of the investigations described in this paper indicate that the average concentration of lead in the air of certain American cities is of a low order of magnitude and that it varies with the size of the city and with a variety of other general and localized