

- 289 New Advances in Fly-Ash Control, H. B. Alford, *Combustion* 32, 45-49 (July 1960).

The ever increasing demand for cleaner stacks, to meet anti-air pollution regulations, has resulted in improved boiler and fly ash collector design. Resistivity of the ash particles is one of the major factors which determines the ease of electrostatic collection. Particles of over 20 microns are easily removed by mechanical cyclonic collectors but electrostatic collectors are required to remove particles of smaller size. New precipitator design provides maximum electrical stability, minimum dust erosion, maximum thermal stability and better gas distribution qualities. Recent improvements on "Rapper" controls, power controls and mechanical power controls provide an impetus of major significance in the constant advances in fly ash collection.

-- Public Health Eng. Abate.

- 290 Garage Health Hazards and Ventilation, C. R. Rose and L. Riesler, *Occ. Health Rev. (Ottawa)* 11, 2-6 (1960).

Carbon monoxide exists in gasoline engine exhaust gases in concentrations ranging from over 10% at idle speed to about 3% at full speed. The amount of carbon monoxide in the exhaust of diesel engines is less than in gasoline engines. Local exhaust systems remove air contaminants at their points of origin before they can escape into the general atmosphere. These systems should be considered because they obtain positive control of contaminants with a minimum amount of air. An exhaust system consists of hoods or enclosures at the sources of air contamination, branch and main ducts through which an air stream transports the contaminant outdoors, a fan to produce the required air flow, and in some cases an air cleaner.

-- APCA Abate.

- 291 Activated Carbon Filters Control Radioactive Vapors, T. T. Porembski, *Air Cond. Heat. and Vent.* 57, 97-98 (Nov. 1960).

A newly designed activated carbon and stack system to handle radioactive iodine vapor is operated in conjunction with existing air cleaning facilities at the Radioactive Materials Laboratory. The new facility will permit immediate sectioning and chemical and corrosion testing of irradiated samples which otherwise could not be handled until the samples had sufficiently decayed and are safe to handle. Proper operation of the ventilation system depends upon the following factors: (1) Assurance that all isolation boxes are sealed, (2) Proper equipment operation, (3) Proper air balancing, (4) Assurance that the isolation boxes are under negative pressure. The activated carbon filters, 95% efficient, used 2 in a series, provide a concentration reduction of 4×10^4 . The system has been found very satisfactory for the containment of radioactive effluents.

-- APCA Abate.

COMMUNITY AIR HYGIENE

- 292 Evaporated Metal Films as Indicators of Atmospheric Pollution, J. P. Lodge, Jr. and Bernice R. Havlik, *Intern. J. Air Poll.* 3, 249-252 (Oct. 1960).

As a substitute is proposed for present technique of measuring atmospheric corrosiveness, namely the use of evaporated metal films a few hundredths of a micron in thickness. Glass slides covered with films of aluminum, iron, lead, copper and silver were prepared and exposed in the Cincinnati area. Corrosion products were identified by means of x-ray diffraction and microchemical methods. Corrosion results in an increase in light transmission by the film, which can be taken as a quantitative measure of corrosion. Preliminary results showed aluminum to be the most dependable indicator of general atmospheric corrosiveness, although silver appeared specifically sensitive to a small group of pollutants, such as