

- 905 The Explosibility of Starch Dust. I. Hartmann and J. Nagy.
Chem. & Eng. News 27: 2071-2072 (July 18, 1949).

Between 1901 and 1946, thirty-eight dust explosions occurred in starch and corn-products plants in this country. One proposed substitute for nitrogen trichloride for bleaching flour is potassium bromate, which in practice is premixed with starch. If this process is employed, it will greatly increase the use of starch under conditions where explosion is possible. Dust explosions can be produced only when inflammable dust is dispersed in air or some other gaseous mixture but undispersed dust can contribute to an explosion that is already started. Hundreds of dusts and powders have been tested by the Bureau of Mines for explosibility, including starches with and without potassium bromate. The tests showed that the dust clouds can be ignited by hot surfaces, weak electric sparks, and other igniting sources. The presence of moisture in the starch decreased the cases of explosion but did not eliminate the explosion hazard. Addition of potassium bromate increased the explosibility slightly. Preventive measures recommended by the National Fire Protection Association include good housekeeping, ventilation of storage places to prevent spontaneous combustion, and the use of relief vents to reduce the damage when an explosion occurs.

- 906 Health Aspects of Air Pollution. A.J. Ianza.
Combustion 21, 56-57 (July, 1949).

What may we conclude from the evidence so far available? (1) Industrial fumes and gases do not occur in the general atmosphere to an extent to cause disability or death, except in very unusual and rare instances. (2) Industrial fumes and gases may constitute a nuisance and even at times irritation and inflammation of eyes and upper air passages. (3) As we cannot control the weather, every possible means must be taken to guard against dangerous or annoying episodes. (4) Smoke pollution, aside from its economic aspects, is a nuisance. It can seriously interfere with general well-being and comfort. That it can cause specific disease or death to any considerable degree cannot be stated in the light of available evidence. (5) Every resource of engineering science and practice should be employed to provide an atmosphere free from annoying or dangerous impurities.

-- Author's Conclusions

- 907 A Report on Activities and Observations Concerning Atmospheric Pollution in the City of St. Louis. Compiled by J.J. Schueneman. Industrial Hyg. Section, Division of Health, City of St. Louis. 10pp. (July 1, 1949).

The history of atmospheric pollution control in St. Louis and the provisions of the present ordinance are given briefly. The various surveys made by outside agencies for particular types of pollution are then summarized. A list of twenty-five industries about which complaints have been registered is followed by a brief description of the types of pollution from different industries. A discussion of methods of determination, standards, methods of control, procedure for securing abatement, and the difficulties encountered are included. The question must always be decided what is and what is not a nuisance, and how much of each pollutant can be allowed. Permitting too much pollution will not satisfy the public, and too high a