1177 Radiation in New York State Industry. Trends in Utilization and Status of Health Protection, 1957-1962. A. Abrahams. Arch. Environmental Health 5, 473-478 (Nov. 1962).

An evaluation has been made of registration and enforcement data by the Division of Industrial Hygiene of the New York State Department of Labor for the first 6 years of operation under Code Rule 38. The following conclusions have been drawn: (1) There has been a steady over-all increase in the number of sources and installations during the period in which the code has been in effect. (2) The rate of increase in the use of small low-hazard sources has been much greater than that for high-hazard sources. (3) The principal industrial applications of ionizing radiation lie in quality control in production and in experimental research and development. (4) Of the total number of code violations recorded, 60% pertained to administrative requirements only. (5) There is no critical problem with respect to keeping exposures of personnel below permissible levels in normal routine operations. (6) Industry accepts the requirements of the code as reasonable and practicable and, on the whole, is in satisfactory compliance with its provisions. (7) There is a continuing need for further training of radiation safety personnel in the acceptable methods for performing surveys, monitoring personnel, and testing leakage. -- Author's summary

ENVIRONMENTAL MEASUREMENTS

1178 Infrared Analysis of Air Contaminants Trapped on Silica Gel. D. S. Erley. Am. Ind. Hyg. Assn. J. 23, 388-391 (Sept.-Oct. 1962).

Many air contaminants in the parts per million range may be analyzed by infrared using long path-length gas cells. Because the spectrum provides a unique identification of the material(s) present, a single sampling technique can be used to analyze many different air contaminants. The method has been successfully employed to analyze halogenated aliphatic and aromatic compounds, alcohols, ethers and ketones. -- Author's abst.

1179 Effect of Automobile Exhaust on Cell Growth in Vitro. D. E. Rounds, A. Awa and C. M. Pomerat. Arch. Environmental Health 5, 319-324 (Oct. 1962).

Conjunctival cells were exposed to an atmosphere of gaseous auto exhaust for varying periods of time, ranging from 15 seconds to 24 hours. This treatment was observed to produce a decrease in the total mitotic index and an increase in abnormal mitotic figures. This tissue was also treated with varying dilutions of chloroform-soluble constituents of auto exhaust with similar responses found in mitotic figures. In addition, the extract produced a marked stimulation in the growth rate, with the decrease in mitotic time apparently contributing to a decrease in the number of mitotic figures. Since mitotic events are interrelated with the rate of increase of the total cell population, it was concluded that an evaluation of the effect of auto exhaust on cell number can provide a simple, reproducible, and sensitive test system for estimating the relative concentrations of physiologically active components of automobile emissions. -- Authors' summary

1180 A Tentative Method for the Determination of Elemental Phosphorus in Air. D. E. Rushing. Am. Ind. Hyg. Assn. J. 23, 383-387 (Sept.-Oct. 1962).

A method by which elemental phosphorus in air may be sampled and determined is described. Collected in xylene the elemental phosphorus is separated from the oxides by reaction with silver nitrate. The phosphorus is converted to phosphate and colorimetrically determined by the molybdenum blue procedure. About 1 to 2 micrograms per aliquot can be determined. -- Author's abst.