control of hazards are combined in this department, with the full cooperation of operating and medical staffs of each division. Dust counting and ordinary chemical analyses are conducted by the department; x-ray diffraction and spectrographic analyses are contracted out to other laboratories, and related animal experimentation is turned over to a university medical school. This plan has proved successful.

139 Pension and Profit-Sharing Plans. A.S. Hansen. Taxes (Dec. 1949); Labor Law J. 1, 219-225 (Dec. 1949).

Pension and profit-sharing plans are considered especially in relation to income tax and for the Bureau of Internal Revenue. The law of 1942 covers both types of plan, although they differ greatly in purpose and in method of administration. "Basically, pension and profit-sharing plans perform different functions. Unfortunately, if they are combined in one plan, the result takes on the bad rather than the good features of each." A pension plan is generally applicable to an older, established company, and a profit-sharing plan to new companies or those with relatively young employees. The matters of employee contributions, separate or consolidated plans, permanency, partial terminations, integration with revised social security, Bureau attitudes and rulings, and others, are also considered.

Accidents and Prevention (Fire and Explosion Hazards, Etc.)

140 Precautionary Fire and Explosion Safeguards in the Use of Chlorine Dioxide for Industrial Bleaching. N.B.F.U. Research Rept. No. 7, National Board of Fire Underwriters, 85 John St., N.Y. 7, N.Y. 23pp. (1949).

Chlorine dioxide is now commercially prepared as a chemical bleaching agent in tallow and fat rendering plants. It is considered in the same general category with regard to toxicity and chemical reactivity as chlorine, but is also explosive under excessive temperatures and concentrations. Sodium chlorite, used in the preparation of the dioxide, is violently reactive with organic matter under some conditions. The production of chlorine dioxide from chlorine and sodium chlorite is arranged to give a concentration of 6% in the wet process and 4% in the dry process. It must in all cases be kept below the explosion limit of 10%, and the chlorine concentration must be kept below 5% in the dry process, or the rate of combination will be too high. A number of precautions are recommended for location of generators, handling and storage of sodium chlorite, and supervision, management, and instruction.

141 Inflammability of Liquids. J.H. Burgoyne and G. Williams-Leir. Fuel 28, 145-150 (July, 1949).

The conceptions of flash and fire points as applied to single liquids are examined and a number of values of the former characteristic are calculated from standard flammability data for the vapors. In general, values