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POLLUTION FROM FIRE-PROTECTION SYSTEMS

IN the report of the Committee on Fire Protection to the American Water Works Association at the last annual convention of that association, there was a summary of cases in which public water supplies were believed to have been polluted by the entrance of water from other sources of supply, usually through fire-protection systems of plants which have been connected with the public water supply and also with some other source of supply in such manner as to permit of the possibility of the water from other sources finding its way into the general distribution system. Many cases of this kind are recorded which are known or believed to have caused outbreaks of typhoid or dysentery.

In the committee's report there is also a discussion of the regulations variously adopted to prevent pollution of this character. The minimum precaution suggested is that wherever dual sources of supply are used, one of which is from the general city supply, the connection with the city supply should be made with two successive, especially well-designed, check gates, to prevent the possibility of any back flow; these check gates to be placed in a position where they are easily accessible for inspection and repair, and to be so arranged that they can be cut off from pressure in either or both directions by positive valves on either side of them, so that each can be independently tested for tightness against back flow by means of proper pressure-gauge and tap connections; and that such tests for tightness should be made at frequent intervals.

There are many, however, who advocate that no such dual connections should exist, but that if the city supply is to be utilized at all in connection with other sources of supply, it should be drawn into supply tanks through pipe connections discharging freely into the top of the tanks, with

no physical connection whatever between the city supply and other sources of supply.

There is even considerable sentiment that no possibly polluted supply should be piped into or used for any purpose about any plant, because there is always the danger that cross-connection may be made inadvertently somewhere inside of the plant, or that employees or others about the plant may use water from the wrong source.

In discussing the above-mentioned report, the chairman of the water works committee of the American Society for Municipal Improvements calls attention to the fact that local conditions should govern the treatment of this problem, and that the circumstances surrounding different cases of dual supply may be so different as to warrant fully the wide divergence of views above noted. For instance, he says, if the source of secondary supply is just as attractive in appearance or taste as the city supply, but is known to be dangerously polluted, the most extreme precautions would probably be warranted; whereas if the source of secondary supply is highly colored or very muddy, so that it would be noticed at once as compared with the city supply, even in a very small admixture therewith, and especially if the secondary source of supply is not polluted and therefore not dangerous to public health, it would appear that it would be a great hardship and most uneconomical to prohibit its use for purposes for which it may be suited or possibly even better adapted than the city supply, or to condemn those who wish to use it to the repumping of the city water whenever they desire to use the two waters together or interchangeably under a pressure not greater than the city pressure, as is often the case in a fire-protection system or in plants where it is desired to make arrangements for dual sources of supply for other uses.

PERSONALS

WM. HARDEN has been appointed manager of the civic gas department at Belleville, Ont.

A. R. CLUCAS, formerly assistant city engineer of Vancouver, B.C., has been appointed town planning engineer for Birmingham, Eng.

CHRISTOPHER J. YORATH, city commissioner, Saskatoon, Sask., has been named to succeed J. T. Steele as comptroller-general of Manitoba.

E. R. GRAY, city engineer of Hamilton, Ont., has tendered his resignation to the city council. Mr. Gray states that he intends to engage in business.

S. T. HUBBARD, chief engineer at the Edmonton power plant, has resigned. It is stated that the position has been offered to W. J. Cunningham, of Calgary.

GEO. ANDERSON, irrigation engineer, Los Angeles, Cal., has been retained by the Alberta government as consulting engineer for the big irrigation scheme which is proposed for the southern part of that province.

A. L. HUGHES, research professor at Queen's University, has been named as a member of a committee of five to meet in St. Louis, Mo., to discuss research in photo-electric work. Dr. Hughes has an international reputation in this field.

J. W. LEDOUX, who is well known in Canadian water works circles, has resigned as chief engineer of the American Pipe & Construction Co., and will hereafter devote his entire time to his consulting engineering practice, with offices in Philadelphia.

A. P. THOMAS has resigned the position of city electrician of Nelson, B.C., in order to return to Australia. He will be succeeded by D. E. MAGUIRE, chief electrical engineer for the past eight years at the smelter of the Consolidated Mining & Smelting Co., Trail, B.C.

A. L. HERTZBERG has retired from the position of district engineer, Ontario district, Canadian Pacific Railway. Mr. Hertzberg was born 65 years ago in Horten, Norway, the son of Col. L. H. Hertzberg of the Norwegian Royal Engineers. Mr. Hertzberg was educated at Horten and at