

The Toronto members of the society are looking forward to a number of good meetings during the coming winter, as several prominent engineers have signified their intention of presenting papers. The meeting was preceded by an informal luncheon, served at the St. Charles Cafe.

REPORT OF THE MEETINGS OF MUNICIPAL ENGINEERS, HELD ON TUESDAY AND WEDNESDAY, OCTOBER 12th and 13th, 1909.

In accordance with the resolution passed at the first meeting held on September 29th, the engineers of the municipalities met on October 12th in Committee Room No. 1 of the Toronto City Hall.

The meeting was called to order at 2 p.m. and the municipalities were represented as follows: London, E. I. Sifton, Ald. Stewart; Woodstock, C. Archibald; St. Mary's, L. H. Reesor, W. R. Reynolds; Stratford, R. H. Myers, Mr. Barrett; Guelph, J. J. Hoig, E. Richards; Berlin, E. J. Philip; Hespeler, L. E. Weaver; Toronto, E. Richards; Galt, E. B. Merrill.

The interests of Waterloo were looked after by Mr. Philip, while St. Thomas, Preston, Ingersoll, and New Hamburg were represented by the Engineers of the Commission.

Mr. Ross, the Consulting Engineer of the Commission, was asked to take the chair.

Secondary Voltages.

The first subject was that of secondary voltages for light and power. Final decision of this subject had been postponed from the former meeting to allow each engineer to study local conditions to determine whether he could comply with the proposed standard. A report on the subject by the Engineering Department of the Commission, may be summarized as follows: We would advocate the distribution of power at 13,200 volts (6,600 volts for Galt, Preston and Hespeler), the use of three-phase 13,200/575 volt transformers for power, and the use of 2,200/220-110 volt single phase transformers for lighting. Where a small power user wishes power from the lighting mains supply him with 220 volt single phase power using standard lighting transformers. Where a large power user wishes power and you cannot economically or advisedly reach him with your 13,200 volt circuits, sell 2,200 volt power and have him furnish not only motor but transformers, recommending the use of 2,200/575 volt transformers.

During the discussion it was found that London could use the 550 volt secondary, Woodstock could do so if the other municipalities took some of their present 25-cycle 2,200/220-110 volt transformers off their hands. It was also decided that 550 volt power could be made safe for all factory work.

The report was finally adopted with the following amendments:

It was considered inadvisable to run higher than a one horse-power single-phase motor on the lighting transformers.

It was considered inadvisable to run higher than a ten horse-power motor on the 2,200 volt lighting mains if the motor is to be on during lighting hours.

No limit in size is necessary if the motor is to operate only during restricted hours.

Frequency.

The decision of the last meeting on this subject was confirmed, and it was decided that practice should tend towards 25-cycle power for all purposes.

Single vs. Three-Phase Transformers.

This discussion, also postponed from last meeting for

further data, was opened by reading the report of the Engineering Department. Their decision summarized was, all station transformers should be three-phase with two taps on the primary side, all power service transformers, three-phase 13,200 volts primary, 575 volts secondary, with two taps on the primary side, and all lighting service transformers to be single-phase 2,200/220-110 volts. (Percentage of taps under subsequent heading.)

During the discussion the questions of weights and sizes as well as prices were considered, and it being found necessary to secure further data the subject was postponed to the following day.

Taps on Transformers.

This discussion was opened by reading the opinion of the Engineering Department, which summarized was: We advise the use of two taps on the primary side only, arranged for normal voltage, 2½ per cent., 5 per cent. and 7½ per cent.

As these taps were for boosting only, the question of lowering taps was dismissed as unnecessary when Mr. Sothman advised that the normal voltage sent out from the Commission stations would always be as near 13,200 volts as the taps on their 110,000/13,200 volt transformers would allow. It was then decided that on the understanding that the Commission will furnish 13,200 volt power at their stations, that their recommendations regarding transformer taps be accepted, to apply to both stations and 13,200 volt power service transformers.

It was also decided that all 13,200 volt transformers be specified to have two coils so that they may be standard with the transformers for the 6,600 volt circuits.

Feeder Regulators.

This subject was discussed for some time, advocates for and against the desirability of installing them from the start being strong in their opinions, and it was finally decided that the meeting should recommend that feeder regulators be installed on all lighting feeders but not for the power feeders, and if not installed at present that all arrangements be made for future use.

High vs. Low Voltage Synchronous Motors.

The Engineering Department reported that on the small sizes which would be used by most of the municipalities the cost of the high voltage motor would be more than the cost of a 2,200 volt motor with the cost of the increased size of transformers added. On the large sizes the high voltage motors would be cheaper. As Mr. Sothman had expressed a wish to discuss this question the subject was postponed.

The meeting then adjourned until 8 p.m. when the following was discussed:

Single vs. Three-Phase Transformers.

Mr. Reynolds and Mr. Philip during the intermission had secured some data from a publication on the comparative weights of these transformers, which showed that in small sizes the weight of a three-phase transformer (without oil) was greater than three single-phase transformers, while the reverse was true if the weights of the oil were added. This caused general discussion, as it was contrary to the general belief that it was finally postponed until the next day, when it was hoped to have greater data to work on.

Street Lighting.

This subject was opened by reading the report of the Engineering Department. Summarized this reports reads: The art of street lighting is in a transitory stage, due to the growing belief in small units closely spaced. The time since last meeting was too short to allow proper report being made up. Suggested that a committee be appointed to make up a