DISTRICT HEATING

PUBLISHED QUARTERLY SINCE 1915



SPRING 1967 - VOL. LII, No. 4



PAUL BUNYAN . . . or TOM THUMB?

HENRY A. MacGREGOR

Office Supervisor, Steam Distribution Department Rochester Gas & Electric Corporation, Rochester, N. Y.

Is it possible for a single department to be two things at the same time? In some respects, the answer has to be an unqualified "Yes". Certainly, this is true when considering our Company's Steam Department. Regarding the total RG&E story, this department, because of its relative size compared to the Gas and Electric Departments, is "Tom Thumb" size. However, comparing the operation with other steam utilities throughout the United States, the picture is completely different. Quickly, you'll find that our "Tom Thumb" has indeed been transformed into a "Paul Bunyan". The reason? In the year 1965, the amount of steam sold in the City of Rochester for commercial, industrial and heating purposes by the RG&E was the *fourth* largest in the United States and Canada, following New York City, Detroit and Philadelphia in that order.

Yes, the Steam Department is an important, integral part of the RG&E.

The responsibility for distributing and metering steam, along with maintaining the mains and services and planning additional mains as needed, is vested in 45 men (and one young lady), who comprise the Steam Distribution Dept. The Operation of the department is carried on by four separate units: Engineering, the Office Staff, Steam Fitting, and Meter Repair and Calibration.

DISTRIBUTION OF STEAM

Steam is produced at Beebee Station (Mill St.), Station 8 (Lawn St.), and Station 9 (Buffalo Rd.). The downtown area of Rochester is served by Station 8 and through transmission lines from Beebee Station. Beebee Station also feeds pressure steam into its adjacent area. Station 9 serves the industries within the Buffalo Rd. area.

The steam distribution system totals 32.7 miles of piping, ranging in size from 2 in. to 24 in. in diameter. Equipment includes manholes, line valves, expansion joints, steam traps, or other related equipment.

METERS

The metering of steam is a difficult problem but without it, "situation impossible" would prevail. To adequately measure steam, three different types of meters are utilized. Chart Type Flow Meters and Shuntflo Meters measure the steam in the gaseous form as it enters the customer's building. These are used primarily for industrial customers. Condensate Meters measure the condensed steam after the customer has used the steam. These are installed primarily for heating customers where it is possible to get all the condensed steam back to the meter.

MAINTENANCE

The efficient operation of all existing equipment is dependent upon a good maintenance program. It is absolutely imperative that each meter performs within the accuracy to which the meter is designed. Common sense dictates that the customer must neither be undercharged nor overbilled.

Pressure regulating must be maintained to assure that the customer is delivered steam with the right pressure and temperature (otherwise, his equipment wouldn't operate efficiently). Also, all valves, and all associated equipment must be maintained according to a prescribed program.

ENGINEERNG

The estimated potential load increase, as the redevelopment of the downtown area takes place, indicates that the demand for steam will approximately double the existing load. This could move the RG&E into third place among the nation's steam selling utilities.

The Engineering Division is developing plans to provide the additional mains and related equipment which will be needed as the loads develop. This is a major operation, as main sizing and installation timing, is most critical. This division also maintains rigid inspection over jobs performed by contractors.

The greatest demand for steam is for industrial purposes. The balance is utilized for heating, air conditioning, water heating, and many other miscellaneous uses. Some of the largest users of our steam facilities are Kodak Office and Camera Works, Bausch & Lomb, General Motors (Delco Plant), and Gerber Baby Foods.

The men in the Steam Department perform a variety of tasks, and their jobs require a good working knowledge of the system as well as ability to inspect, maintain and repair equipment.

Steam Distribution is justly proud of the fact that they have made a great contribution toward keeping the city air clean. The absence of smoke-belching chimneys makes for cleaner buildings and windows, and a healthier atmosphere for the thousands who work in the downtown area.

Eliminating most of the coal and oil delivery trucks and the ash removing vehicles from city streets has also greatly helped the traffic congestion problem.

The future development will be made with this same purpose in mind, to make Rochester the cleanest and most pleasant city in the nation in which to work and live.

(Reprinted with permission from RG&E NEWS Vol XLV, Nos. 11 & 12).