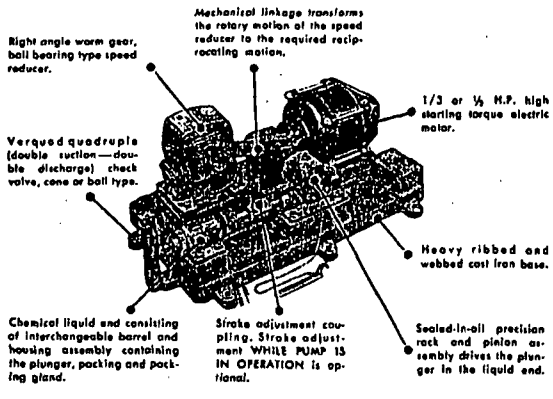
Simplicity of design plus precision manufacture



assure high standards of accuracy and dependability in Hills-McCanna "U" type metering and proportioning pumps

Whenever small volume flows must be metered or proportioned continuously, the simple, foolproof design of Hills-McCanna "U" Type Pumps pays big dividends. For flows up to 24 gallons per hour per feed, its accuracy and reliability suit it for research, pilot plant operation and full scale processing alike.

The "U" type pump is available in a range of capacities with 1, 2, 3 or 4 feeds. Its design permits use of a wide variety of materials of construction in the liquid end.

Write for descriptive literature which gives full information. HILLS-McCANNA CO., 2369 W. Nelson Street, Chicago 18, Ill.

HILLS-McCANNA

metering and proportioning pumps

Also Manufacturers of:
SAUNDERS TYPE DIAPHRAGM VALVES
FORCE FEED LUBRICATORS • MAGNESIUM SAND ALLOY CASTINGS

More TECHNICAL BRIEFS

on these large interconnections brought two major load regulating lems into sharp focus: 1. P scheduled loading on critical tie lines is being reduced ingly large cyclic swings. 2. able savings are being lost by ity of operating personnel to the loading on an increasing stations and units in accordance incremental costs.

Past experience has shown relative importance of these two lems for any member system of terconnection varies with conditions. In general, systems cover a large geographical region long lines to neighboring systems frequently more concerned with first problem. On the other hand tems which supply concentrated politan loads have pursued the to the second problem. With precedented load growth now facing power industry, operating requirements demand that many systems devote attention to both problems.

The latest techniques in applying tomatic load control have permitted solution to both these problems on same system. The author describes advanced control scheme which enables a given system to install equipment tially to handle its immediate load ulating problem with full assurance *additions can be made to solve the* lems of the foreseeable future.

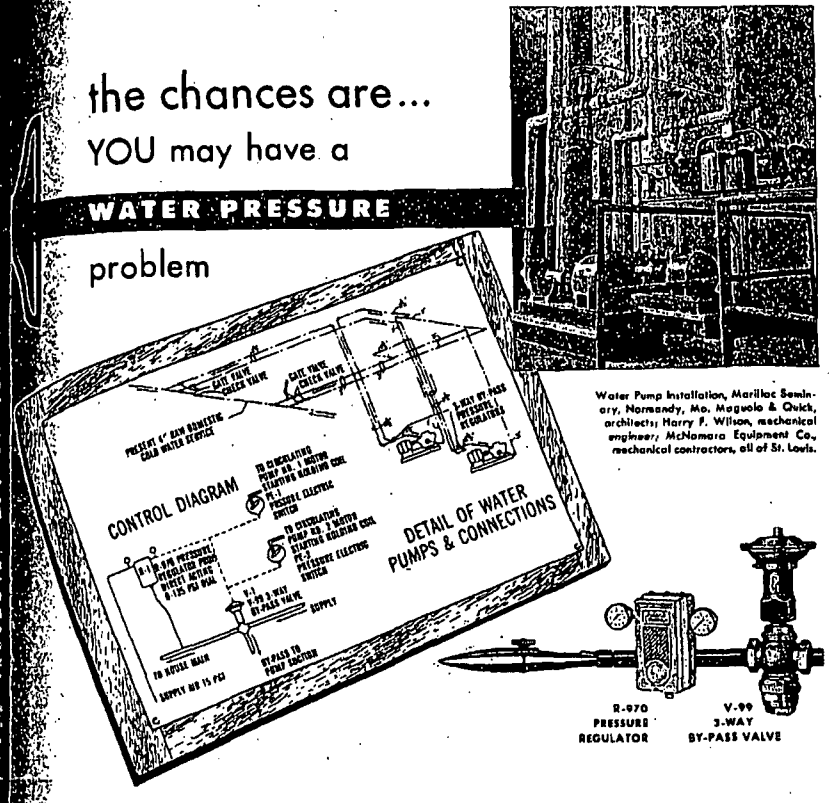
When analyzing the load regulating problem on an operating area of a interconnection, you divide the customer load changes into two classifications. This paper refers to the fast load fluctuations of a cyclic nature as load changes, whereas the integrated changes which make up the system curve are designated as sustained changes.

Since it is now accepted practice control automatically in response to tained load changes on most areas large interconnection, a basic involves the selection of the station units that will respond to this action. The magnitude and rate change of the sustained load changes together with the cost of generation the proposed units determines the tent of the automatic control system. The trend is to distribute the generation changes in response to the tained load changes among a number of units in several stations accordance with the most efficient ing schedule.

The possibility of controlling

Directions for ordering papers on p

the chances are... YOU may have a WATER PRESSURE problem



Water Pump Installation, Marillac Seminary, Normandy, Mo. Maguolo & Quick, architects; Harry F. Wilson, mechanical engineer; McNamara Equipment Co., mechanical contractors, all of St. Louis.

R-970 PRESSURE REGULATOR — V-99 3-WAY BY-PASS VALVE

eliminate inefficient operation and the possibility complete shut-downs due to low water pressure! the Johnson Control hook-up, shown here, solves the problems.

Here's how it works: Whenever the pressure of the water in the "house main" falls below the desired point, the Johnson R-970 Pressure Regulator starts the booster pumps, in a predetermined sequence, and regulates the Johnson V-99 3-way By-Pass Valves so that the desired pressure is maintained.

The booster pumps automatically "come to the rescue" only when needed. There is no chance that low water pressure will be overlooked. Another problem solved by Johnson Control.

Send for bulletins describing this, and other, Johnson apparatus. Better yet, ask a Johnson engineer from a nearby Branch Office to call and discuss *your* automatic control problems. There is no obligation, of course. JOHNSON SERVICE COMPANY, Milwaukee 2, Wisconsin. Direct Branch Offices in Principal Cities.

JOHNSON *Automatic Temperature and Air Conditioning* **CONTROL**

MANUFACTURE • APPLICATION • INSTALLATION • SINCE 1885