

READER SERVICE SECTION



Wolverine Co-op's Johnson Plant Gets REA 1952 Efficiency Award

The Johnson generating station at Hervey, Michigan, base plant of the Wolverine Electric Cooperative, has been cited as "the most efficiently operated of all REA internal combustion plants" in 1952. With net generation at 27,932,460 kwh average production cost per net kwh was 5.96 mills.

Prime mover complement that helped earn this distinction includes three identical 3500 hp Fairbanks-Morse dual-fuel engines, two 1010 hp and one 1650 hp Cooper-Bessemer dual-fuel engines. Average operating engine load was under three quarters of rated capacity.

Pilot oil used is a blend of 70% gas oil and 30% No. 3 oil. Gas reaches the plant at 200 psi line pressure, passes through a heater and regulator and enters a 10-in. header at 55 psi. Pressure at engines is 35 psi for the Fairbanks-Morse units and 20.6 psi for the Cooper-Bessemer.

Getting natural gas for the Johnson plant was something of a problem since the Cooperative has been unable to buy transmission line gas from the utility serving Michigan. Intent on cutting fuel costs on their existing two engines, the Co-op in 1947 encouraged a local refining company to develop two small gas fields, one at East Paris five miles from the plant and the other at West Paris seven miles away.

Wolverine contracts for total production of the fields, and the plant's own line picks up gas at intersection of gathering system of the six wells. Actually, Wolverine contracted for the output of the East Paris field before the wells were dug.

As personnel get more familiar with

the recently installed big engines, Wolverine speaks of even greater efficiency. This goal will be further helped by addition of aftercoolers, improved load factor, and a price drop in natural gas.

IGT Fellowships Increased

The Institute of Gas Technology, affiliated with Illinois Institute of Technology, Chicago, announces the availability of 15 Fellowships for 1953 leading to the degree of Master of Science in Mechanical Engineering or Chemical Engineering, or Master of Gas Technology and Doctor of Philosophy.

The Master of Science curricula are additions which will accelerate the Fellowship program to enable earning a Master's degree in about 15 months instead of the two years still required for the Master of Gas Technology.

Applications are invited from seniors and graduates in chemistry, physics, and chemical, mechanical, natural gas and petroleum engineering who are in the upper quarter of their class, are U. S. or Canadian citizens and are under 28 years old. Application forms can be obtained from college department head, personnel manager of local gas company or from The Director, Institute of Gas Technology, 17 W 34th St, Technology Center, Chicago 16, Ill.

McGraw-Hill Surveys Expansion vs Modernization

The Economics Department of the McGraw-Hill Publishing Co has surveyed business plans for new plant and equipment over the next four years.

POWER NEWS TECHNICAL BRIEFS PLANT EQUIPMENT NEWS NEW FREE BULLETINS



RECORD high 15,000,000 kva is interrupting capacity of 15 huge oil circuit breakers to be built at General Electric Co's Switchgear Department, Philadelphia. One of three pole units for, breaker is shown being readied for development tests. The breakers are the first 330 kv units built in United States.

Here are some of the stated findings:

Businessmen plan to increase manufacturing capacity by 16 per cent between now and 1956. Biggest expansion is planned in the electrical machinery, transportation equipment and chemical industries, mining and utilities.

In many fields, however, increased production will result from modernization and replacement instead of actual expansion. On the basis of total capital spending, here are some figures showing the modernization shift:

	Expansion	Modernization
1951	58	42
1952	49	51
1953	43	57
1954-56	38	62

In dollar-sign figures for overall capital spending (Continued on page 214)

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