

General

Power-Plant Operation

The power plant (see fig. 27) continues to provide all the electric power and steam for process work, prime movers, and all heating purposes, plus plant water and compressed air for the entire installation. Since January 1, 1950, operation of the hydrogenation, synthesis, and gas-manufacturing plants, with the added load of power sale to outside consumers, has advanced the average demand to 8,000 kw.-hr. for 1951, with a peak in excess of 13,000 kilowatts. Approximately 100,000 pounds per hour of process steam is necessary to operate the synthetic fuels plants. This, with the steam for electric power production, has established a peak of over 300,000 pounds per hour and fully loaded two of the three boilers installed at the power plant.

It is estimated that, in the 1951-52 fiscal year, the plant will generate some 66,000,000 kw.-hr. of electricity. Approximately 30,000,000 will be used for synthetic fuels and the surplus or excess power furnished to outside customers. Since 1948, the production cost of electric current has decreased from an average of approximately 5 cents to a present cost of 8 mills per kilowatt-hour. A considerable amount of maintenance has been done in the power plant. In the past 18 months two turbines have been rebladed, and a complete new power-cable system, sectionalizing switches, and high-speed relays have been installed with a decided reduction in operating expense.

Safety

Much attention has been given to the prevention and control of skin irritations.

All portions of the plant have operated throughout the year with a "zero" frequency and severity rate for disabling injuries. This unusual safety record in a plant subject to the inherent hazards of synthetic fuel processes is very gratifying and can be attributed at least in part to the sincere concern of everyone in accident and fire prevention.

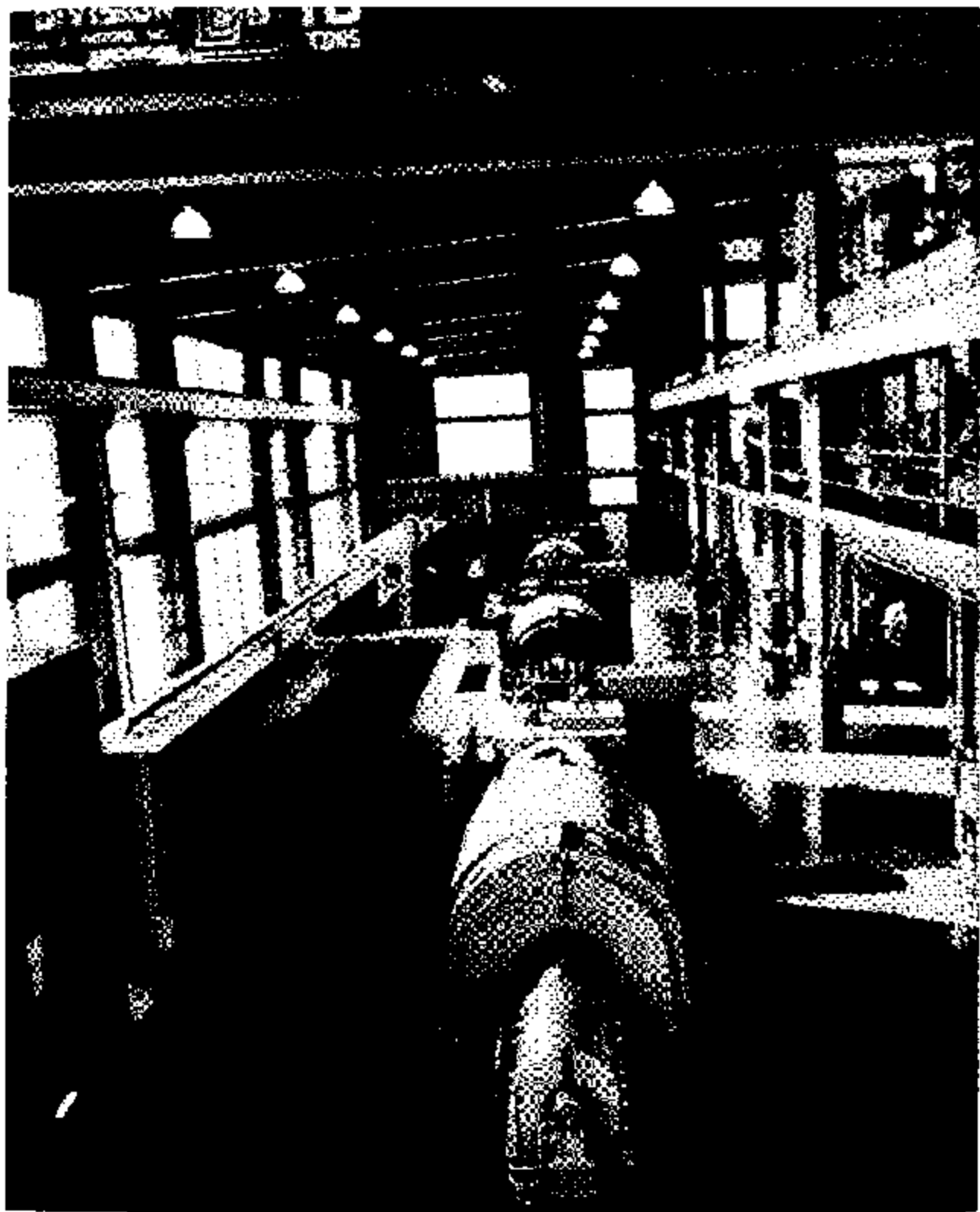


Figure 27. • Main operating floor in powerhouse, showing control boards and turbine generators.