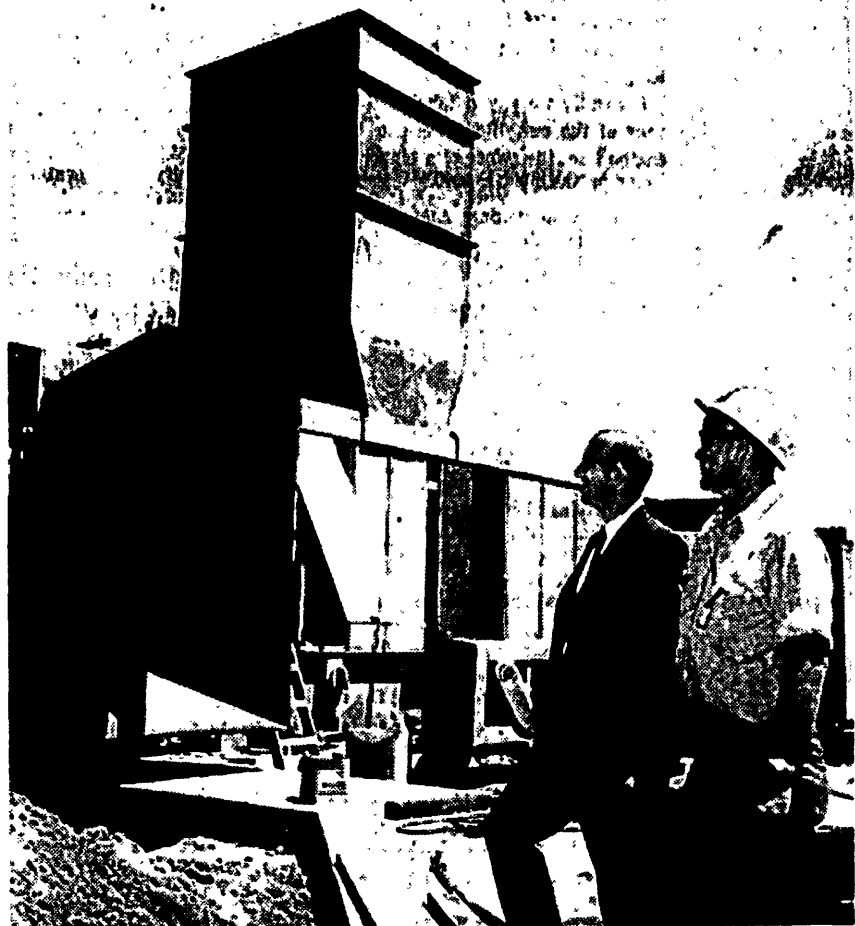




CHECK PROGRESS—Project engineer Carl E. Avers, left, and piping foreman Frank Conrey check prog-

ress of a new gas-turbine electricity generator which will use exhaust gases to make steam at NTC.

New Steam Machine at NTC To Hold Down Air Pollution

By ROBERT DIETRICH
EVENING TRIBUNE MARINE WRITER

Putting 970-degree exhaust gases to work at the Naval Training Center will hold down pollution and save the taxpayers money.

So says Carl E. Avers, project engineer for the \$3.5-million combination electricity-generating and steam-producing plant the San Diego Gas & Electric Co. is building at NTC.

The electricity generator is a standard 20,000 kilowatt turbine powered by natural gas. Its exhaust system will be part of a boiler system capable of developing 140,000 pounds of steam an hour.

"The technique has proved successful in industries located in other parts of the country," Avery said. "We believe our system is the first to be developed for use at a federal installation."

No federal funds are being used in the project, Avery pointed out.

In exchange for long-term permission to operate the generator, the Navy will receive the steam at a reduced price. The same system will provide steam for the adjacent Marine Corps Recruit Depot.

"Although we haven't worked out actual per-pound cost of the steam, it will be tremendously less than the amount NTC and MCRD spend now on operating oil-heated boiler plants.

Both training installations require massive quantities of steam for cooking, heating and laundry service for more than 31,000 personnel.

The present 40-year-old oil-burning MCRD steam plant will be shut down when the SDG&E system is operational early next year,

Avery said. The NTC steam plant will be operated by Applied Energy, Inc., a SDG&E subsidiary.

The gas-turbine generator, one of 13 in the county, will feed electricity into the general San Diego grid, Avery explained. NTC and MCRD will continue to draw their power needs directly from that grid, he added.

Avery said that SDG&E has proposed installing similar units at the Naval Station and North Island Naval Air Station. Ships, using their own boilers to produce steam, having been singled out as significant causes of local air pollution.

Large institutions such as the University of California at San Diego and San Diego State College could benefit economically by adapting the steam production system, Avery said.

He also pointed out other advantages of the system:

First — Virtual elimination of air-polluting fuel oil smoke at MCRD and NTC. The standby diesel steam generators will switch on only when demand for the steam exceeds the output produced by the gas turbine.

Second — Reduction in payroll costs. Only one attendant will be required to monitor the automated controls of the new system.

The 20,000-watt generators — 13 in all — located throughout the county are linked to a central computer which regulates their electricity output to match the quantities in use by consumers, Avery said.

The generators are also equipped with "cold start" features which would allow them to switch on immediately and operate independently in the event of an areawide power failure.