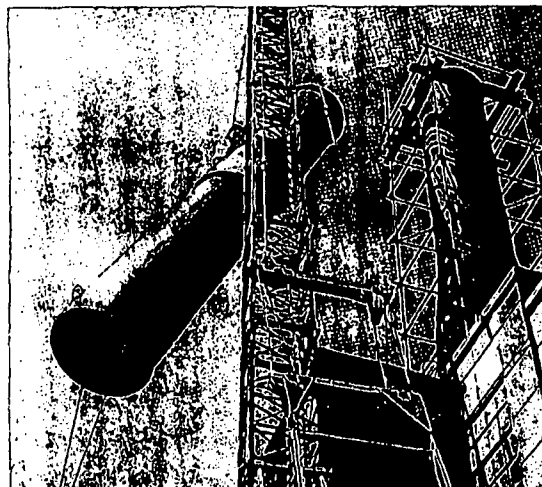


READER SERVICE SECTION



FIRST GLASS-LINED SMOKE STACK, built by A O Smith Corp, is now in service at Co's Milwaukee plant. Above 3-ton section will form top of 85-ft experimental stack

North American Builds Atomic Power Plant

► ATOMIC POWER GENERATION moved closer to reality with the announcement that North American Aviation is ready to build a pilot plant. The company, working under contract with the Atomic Energy Commission, will use the new plant for producing electrical power for civilian use.

North American has already built a scale model complete with flashing lights, moving control rods and Geiger counters. Estimated cost for the plant itself is \$10 million. Although certain phases of design are restricted, plans are available for inspection through the AEC by all persons and concerns cleared for access to classified data.

The pilot plant will generate power from the tremendous amount of heat produced during fission. Liquid metal will circulate through the reactor, absorb heat and then pass into an ordinary boiler to produce steam. The plant's output will be about 8000 kw—enough power to supply 2000 average homes. This power could be used for other

atomic research at the site of the reactor.

Externally, the pilot plant will resemble an ordinary electrical power plant except for lack of coal, oil or other similar fuel-handling equipment. Unlike conventional installations, this new plant will produce neither smoke nor fumes. Although plant research and investigation will require additional scientists and engineers, routine operation of the new unit will require no more personnel than conventional plants. Special control devices and built-in characteristics of the design will provide the necessary safety factor.

At present, costs for producing electricity by atomic fission are higher than costs of conventional methods. However, the new development will provide valuable research that can help put such plants on a competitive basis. Also, atomic power generating plants enjoy a distinct advantage over conventional installations in areas where fuels such as coal, oil and gas are scarce.

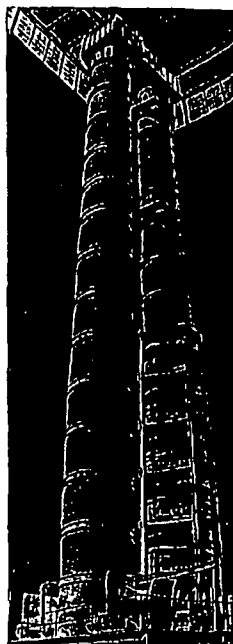
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Ontario Hydro Plans Pumped-Storage Plant

► THE ONTARIO Hydroelectric Power Commission currently has under construction Sir Adam Beck-Niagara project. This is a 1,200,000-hp development scheduled for operation in 1965.

Water will be brought from above Falls to the top of the cliff overlooking the plant at the river's edge near Queenston, Ontario. The water will be carried by (1) two concrete-lined tunnels, 1.5 miles long and 45 ft in diameter and (2) an open canal 2.25 miles long. (Continued on page 234)

For coming events see page 234



WORLD'S TALLEST FURNACE is being built by Westinghouse Electric Corp. The 130-ft tower will heat treat aluminum pieces employed in aircraft construction.

ALL FORGED STEEL Edward UNIVALVES

Lower Pressure Drop 25-50% with Straight-Thru Flow

As shown photographically here, the streamlined internal contours and the inclined stem construction of the Edward Univalve give straight through flow which careful laboratory tests have shown to result in pressure drop 25 to 50% lower for Univalves than other globe valve types. Turbulence, too, is greatly reduced by these streamlined contours. And lower turbulence lengthens valve life by eliminating vibration, the principal cause of wear in small globe valves.

But lower pressure drop and less turbulence are not the only reasons the Univalve has become an industry standard for tough high pressure, high temperature service. Here are just a few of the benefits which add to longer life and lower maintenance for this outstanding all forged Steel Valve.

LONGER PACKING LIFE through a positive backseat and deep seating chamber which protects packing in service. Retraction of packing prevents blow-out when repeating under pressure.

PERFECT ALIGNMENT, EASY DISASSEMBLY when necessary, through foolproof patented body-bonnet construction.

EXTRA WEARING SEATING SURFACES—achieved by application of continuous ring of Stellite to valve body; Stellite hard-facing applied to alloy disk.

EASY PACKING ADJUSTMENT—achieved through bolted, accurately spaced gland.

EFFORTLESS SEATING with impactor handwheel (indicates 1/4 in. end travel).

CHECK VALVES, TOO Check type Univalves, of spring loaded piston design, have the same basic construction as globe Univalves. Use them together for all welded construction for small pipe lines, eliminating all bonnet joint leakage problems.

IDEAL FOR BLOW-OFF SERVICES

Univalves meet all ASME code requirements for blow-off service and are adaptable for high pressure installations to 3120 psi boiler pressure.

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Now through Univalve demonstrates straight thru flow of this valve.

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