DEFENSE DIGEST

Your roundup of mobilization news and trends affecting power me

Changes in defense plans are taking shape as the Administration sizes up the new Russian regime and its program. These are likely to reflect a different strategic concept from that followed in the past.

Truman-administration planners tried to forecast the "danger year" in which Russia might move and gear defense build-up to meet it. Eisenhower's men seem to be figuring on maintaining a "respectable posture of defense" for a long pull – 10 to 30 years. This would probably mean holding a somewhat lower level of spending, one geared to sustaining a sound national economy.

Basis of U.S. strength is its economic potential, say proponents of this plan. Idea is to protect this strength in the face of a Soviet policy that will continue unchanged, regardless of "peace" manuevers.

But if shooting stops in Korea, there'll be pressure from the public and some members of Congress to slack off drastically on military spending and foreign aid. So sticking to the long-range program may prove pretty tough.

First big nuclear unit recently began low-power operation at National Reactor Testing station, Arco, Idaho. Built by Westinghouse as a prototype for submarine propulsion, power plant is rated at about 20,000 kw. A second unit, now under *construction, is expected to go into a sub hull sometime in 1954.*

Powdered-coal pipeline between Cadiz, in Ohio's mining area, and Cleveland, 135 miles away, looks good to Pittsburgh Consolidation Coal Co. They say they'll build as soon as customers can be lined up to keep pipe running full.

Line would move pulverized coal in water. Cost is estimated at $10 million but Pitt Consol expects to carry coal for less than $2.00 per ton against about $2.84 for rail shipment. Depending on flow, line would be 24 to 36 in.

Savings of nickel are promised by a new plating process. Developed by General American transportation Co. and called "Kanigen," it's a chemical method. It eliminates electrolytic equipment and is said to give equivalent protection with one-half to one-third the metal used in conventional processes.

Big future is seen in fields where usual methods aren't applicable. Kanigen is good for very large pieces and irregular shapes. It can be used for forgings and steel castings. Interiors of tubes and threaded parts can be coated uniformly, without pores. Valves and other small parts can be plated economically.

Zirconium for atom program will be produced at a plant to be built and run by Carborundum Metals Co. at Akron, New York, not Akron, Ohio, as we reported on this page in March. Plant is now under construction, will be completed soon.

Opening the atomic field to private industry is recommended in a plan to be put before Congress by the Atomic Energy Commission. It has approval of the administration and the National Security Council.

Key points: authority for AEC to sell, lease or lend fissionable materials, and for private concerns to design, construct and operate reactors to produce power. This would effectively end the complete Federal monopoly in the nuclear field. Experts believe security problems and patent policies can be worked out.



The O. H. Hutchings Station, 12 miles South of Dayton, will have six 60,000-kw units when completed in 1953. All FD and ID Fans in the Station are Sturtevant's famous Turborane.®

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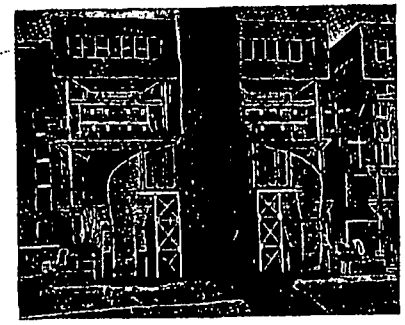

Expert engineering plus rugged construction of Sturtevant draft fans assure smooth, dependable operation. Exposed service such as this is particularly demanding.

At Dayton Power and Light's O. H. Hutchings Station, Sturtevant fans have a tough, long-running assignment. In four years, that #1 has burned 530,000 tons of pulverized coal in its dry-bottom boiler. Yet routine checks of the induced draft fans have shown that erosion is negligible.

One of the big reasons for this remarkable record is the time-proven Sturtevant E-R (Erosion-Resisting) wheel. Its special design causes fly-ash to use up its abrasive action on *itself*, and on replaceable liners. Result: many more years of fan life.

Sturtevant fans have also been chosen for the other five units of this important station. That makes a total of 6 forced draft and 6 induced draft Sturtevant fans.

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MECHANICAL DRAFT