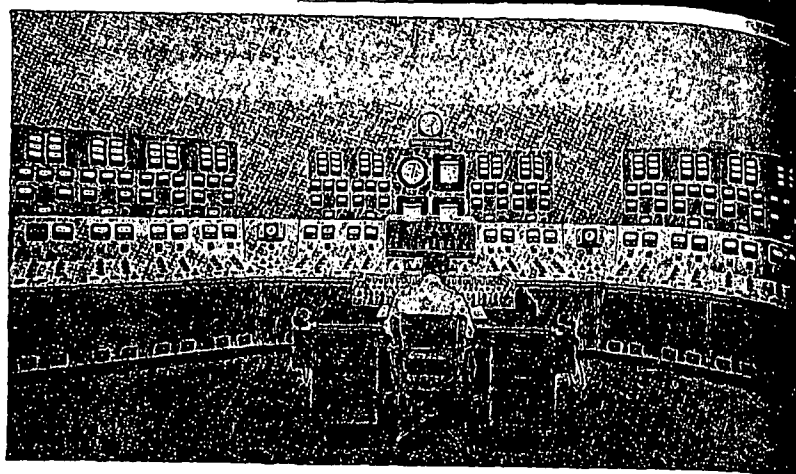




Switchboard in Control Room of Aluminum Co. of Canada's Shipshaw Powerhouse. Note how signal lights and Micromax Recorders are centralized in operator's triangle of vision, with all switches for the Station's hydro-generators at the sides.

SHIPSHAW OPERATOR Watches Generators via Micromax Recorders

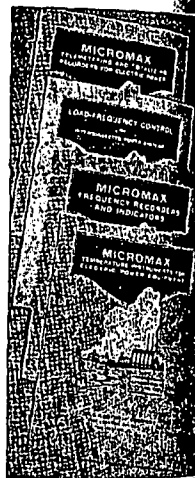
The instruments in Shipshaw Powerhouse's Operating Room are noteworthy for the quick, compact way in which they enable the generation operator to watch the Station's three interrelated conditions of frequency, load and generator temperature.

The Round-Chart Micromax Recorder, just below the clock at the left, shows the frequency.

Beside the Round-Chart Frequency Recorder is a Micromax Strip-Chart Load Recorder. This instrument totalizes the megawatt output of Shipshaw's twelve units.

Below the Frequency and Load Recorders are two Micromax six-point Generator Temperature Recorders; only the top halves are visible in the photograph. Each shows the stator temperatures in 6 generators, and warns if the ultimate load-limit is reached, regardless of power factor, ambient temperature or any other contributing factor.

Thus the four Recorders tell the story of what the twelve turbo-generators are doing, and tell it in the way best calculated to help the operator perform his twin duties of carrying the station load and protecting the machines. Leeds & Northrup Co., 4910 Stenton Ave., Philadelphia 44, Pa.



Any or all of these L&N Publications will be sent on request if you have a problem to which an L&N Recorder or Controller may be applied, we suggest you call an L&N engineer for specific recommendation.

MEASURING INSTRUMENTS • TELEMETERS • AUTOMATIC CONTROLS • HEAT-TREATING FURNACES
LEEDS & NORTHRUP CO.

J-1 Ad N-161 (7)

POWER (with which are consolidated "Science and Industry," "The Engineer Review," "The Engineer" and "The Stationary Engineer"), Vol. 92, No. 5, Published monthly with an additional Directory number in June. McGraw-Hill Publishing Company, Inc. Publication office, 1221 Avenue of the Americas, New York 10, N. Y. Editorial and executive offices, 310 West 42nd Street, New York 18, N. Y. Entered as second class matter August 15, 1923, by Act of Congress, October 3, 1917. Printed in U. S. A. Allow six weeks for change of address. All communications about subscriptions should be addressed to the Director of Circulation, POWER, 310 West 42nd Street, New York 18, N. Y. Subscription rates—U. S. and U. S. Possessions \$3 for one year, \$5 for two years, \$10 for three years. Canadian \$4 for one year, \$7 for two years, \$12 for three years. Foreign countries \$15 for one year, \$25 for two years, \$40 for three years. Please indicate position and company connection on all subscription orders.

POWER

CLIP W SWAIN, EDITOR • MAY 1948 • ESTABLISHED IN 1882

THE ATOM JOB—IS IT BEING DONE?

TODAY, the Atomic Energy Commission carries one of this country's top responsibilities. It is only natural that we, as engineers and citizens, should want to know how well that responsibility is being discharged.

Of necessity, much of AEC's work is secret. The information that can be released is usually fragmentary and difficult for even the expert to evaluate. In such an atmosphere, criticism is all too easy. Yet unwarranted criticism can be damaging in its effects on the Commission and the McMahon Act under which it operates.

To secure the facts needed to assess this situation, POWER, through its Washington bureau, has examined the entire atomic-energy program, starting from a background of close coverage of the subject since 1940. We didn't ask for, and didn't get, any secret information. We did talk to government officials, both in and out of AEC, and to industrial leaders, those involved in the atom program and those who have chosen not to be involved. Every major atom plant and lab has been visited. The report beginning on the following page presents the results of this survey in concise form. It represents, we believe, as complete and clear a picture as is available to an outsider. On the facts, these conclusions about the atomic program under the McMahon Act seem justified:

1. AEC is, of necessity, pushing first an armament program, and results must be judged on this basis. One cause for criticism has been the apparent slowness in developing peacetime applications, particularly power generation. The key fact here is that no one in the U. S. needs atomic power very badly. In fuel-hungry Europe, and even more in Britain, the picture is different. Thus the first practical atomic power plant may well appear outside the U. S.

Even with its tremendous budget, AEC must carefully ration materials and, especially, engineer-

ing talent. Under today's conditions, AEC must give top priority to military projects, go slow on others that would compete for men and materials.

2. There has been no faltering in the No. 1 job of running war-built plants to maintain the bomb production achieved by Manhattan District. At Oak Ridge, efficiency in separation of fissionable uranium has been boosted. Production of plutonium at Hanford has been maintained in the face of great technical obstacles. Bomb manufacture at Los Alamos has been headed from a laboratory toward a factory operation.

3. No such unqualified endorsement can yet be given to the equally important program for advancing our knowledge of fusion processes and products, but we seem to be on the way. Six months ago, the forward-thrusting phase of atom work was at dead bottom, stagnating. Then AEC got a grip on its huge job and things began to move. Today the situation is still spotty, but visibly on the mend everywhere.

Able regional administrators with a large measure of autonomy are pushing the major projects along. The top-priority new plutonium plant at Hanford is well under way. In the radically re-organized reactor program, designers stand ready-to-go on three or four new piles. Although weapon-making at Los Alamos still has a long way to go, agreement has been reached on a research plan and the laboratory is squaring away to undertake it.

4. There appears to be no need, at this time, to change the McMahon Act. When it becomes possible to see the pattern that peacetime commercial application of the atom will follow, we will almost certainly want to reconsider the entire question of the "socialized" atom. With military applications now in the fore, government monopoly is natural. Under the McMahon Act, AEC is getting its job done. Right now that's the prime consideration.

POWER • May 1948