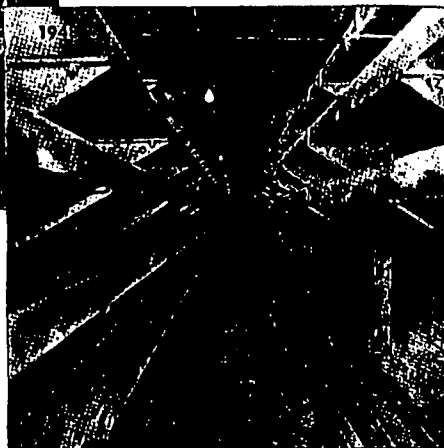




Interior of tunnel today. Perfect protection continues.

24-Hour Strength in bitter cold weather.

24-Year Service in power-line tunnel provided by

LUMNITE STRUCTURAL CONCRETE

It was 15 degrees below zero when workmen placed LUMNITE concrete in the forms for this underground power-line tunnel back in 1924. But despite the below-freezing temperature, LUMNITE gained *full-working strength* within 24 hours. Today it's in excellent condition and continues to give strong, durable service after 24 years!

Cold-weather concrete construction is facilitated by use of LUMNITE. Strong, durable concrete can be made in freezing weather, overnight, with a minimum of protection and without the use of arti-

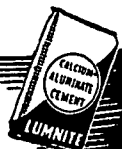
cial heat. LUMNITE, a calcium aluminate cement, generates its own heat to allow normal hardening. And its high 24-hour strength permits rapid maintenance jobs.

Besides its overnight structural advantages, LUMNITE'S adaptability and utility also serve modern power plants as Refractory, Heat- and Corrosion-resistant Concretes. LUMNITE linings for stacks, flues, coal bunkers and ash-pits provide smooth jointless surfaces, resulting in less resistance to flow of gases and less abrasive wear.

For further information, write to:

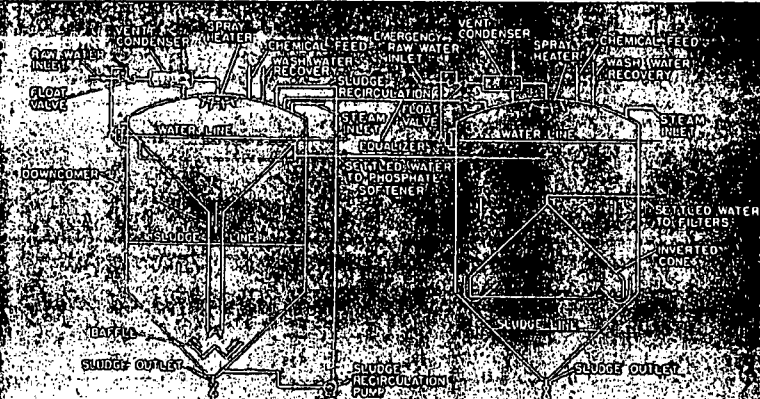
Lumnite Division
UNIVERSAL ATLAS CEMENT COMPANY

135 EAST 42nd STREET • NEW YORK 17, N. Y.



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POWER • December 1948



1/5th as much SILICA
IN BOILER FEED MAKE-UP

with the Permutit Sludge Blanket Hot Process!

feeding paper plant installed a Permutit Sludge Blanket Hot Process water softener. Silica was reduced to 1/5 the amount previously obtained with a conventional type softener. By feeding more magnesia, the silica content could be reduced to less than 1 ppm. The plant's estimated annual savings on treating chemicals exceeded \$6,000.

Besides lowered chemical costs, the Permutit Hot Process brings you many *extra* advantages: More efficient use of magnesia! Lower turbidity in settling tank effluents! Longer filter runs! Greater adaptability to fluctuations in flow rates! Easier operation! This is another of Permutit's great achievements in the water conditioning field.

CHARACTERISTICS	CONVENTIONAL DESIGN	SLUDGE BLANKET DESIGN
Silica in raw water, as SiO ₂ ppm	55	55
Silica in effluent, as SiO ₂ ppm	11	2.0
MgO feed, ppm	76	59
Parts SiO ₂ removed per part MgO	0.6	1.1
Average retention time of Mg(OH) ₂ in hours	4.7	100
Contact time of water with Mg(OH) ₂ in minutes	92	87
Hardness of effluent, as CaCO ₃ ppm	21	15
Average load on softener, % rated capacity	65	46
Temperature in softener	220° F	243° F

Write for full information to the Permutit Company,
Dept. P-12, 330 West 42nd Street, New York 18, N. Y.,
or to the Permutit Company of Canada, Ltd., Montreal.

FOR 35 YEARS WATER CONDITIONING HEADQUARTER

Permutit