

is in order. That is as it should be, for monopoly means death to economic and political freedom.

But if a labor union secures complete monopoly control over an industry through control of its workers, that union remains above and beyond the antitrust laws. "The fate of the world sits on this rug." By that imperial attitude John L. Lewis fully demonstrated how obsolete is the notion that labor unions are weak and, therefore, need exemption from the antitrust laws. Through the United Mine Workers, Mr. Lewis controls about 90% of the coal miners. (No company controls more than 5% of the nation's coal output.) Wherever he sits he has at his feet the welfare of the whole nation.

Great international unions exercise a comparable measure of monopoly control in other basic industries—steel, transportation, and automobiles, for example.

These labor monopolies can destroy the nation if they are not themselves broken up. Witness the plight of France. There the Communists have found in the great labor monopolies an instrument for shaking the nation to its foundations.

III

The Taft-Hartley Act also leaves untouched industry-wide collective bargaining, which is a kind of second-degree monopoly.

When all or almost all of the employers in an industry get together with the union leaders to agree on wages and working conditions (that is called industry-wide bargaining) they set up a monopoly control. It is a less concentrated monopoly than when the terms are dictated by either side, as Lewis dictates them in coal. But, nonetheless, competition is eliminated and monopoly control is established over wages, which are by far the largest element in the cost of production. It follows that public regulation of collective bargaining—which means the end of free unions and free management—is not far behind.

Some employers defend industry-wide bargaining as their only defense against industry-wide unions. Other employers like it because it makes wages and hours uniform for their whole industry.

For those employers who are forced into industry-wide bargaining in self-defense the road to relief is clear. Congress owes it to them and to the public to free them from the necessity of dealing with a monopolistic union. The best way to do that is to remove the exemption of labor unions from the federal antitrust laws.

To those employers who engage in industry-wide bargaining because they like it the proper answer is also quite clear. They (and the union involved) are maintaining a private monopoly which is offensive to the public interest. It should be prevented by law.

IV

Congress should finish the job of eliminating labor monopoly and industry-wide bargaining.

In the course of enacting the Taft-Hartley law last spring the House acted to eliminate the exemption of unions from the federal antitrust laws and to make industry-wide bargaining illegal. The Senate, however, refused to go along.

The principal reason advanced in the Senate for deferring action was that more knowledge is required to legislate intelligently. To get the needed information, a joint Congressional committee was created.

It is standard Congressional practice to stall off tackling a difficult job by creating a special committee to study it. The new joint committee is not likely to prove an exception to this rule—unless the voters loudly demand of Congress that it get on with its job of protecting the public interest in the conduct of labor relations—a job which is nowhere near done.

Helpful and effective as many of its provisions are, the Taft-Hartley Act does not face squarely the central principle of industrial relations in a free society. That principle is this: *Neither employers nor organized workers, separately or in combination, shall exploit the public by establishing a monopoly.*

Do not let your Congressmen go to sleep on the job of solving that problem or hide from it because of fear. The perfect solution may be hard to find. But the problem can be largely solved by making organized labor subject to the federal antitrust laws just as management is now subject to them. If that problem goes by default your children and your grandchildren will really know what slave labor means.

James H. McHale, Jr.

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THIS IS THE SEVEN OF A SERIES

Hydrogen-Zeolite Treated Water Dissolves Boiler, Superheater Scale

REMOVING SCALE and sludge deposits from boilers and accessories with 5% inhibited acid is frequent practice, and its advantages have had considerable publicity. Uninhibited 0.01 to 0.03% acid has also been found very effective in dissolving and disintegrating adhering boiler deposits.

Acid of the latter strength, easily prepared by passing a normal water through hydrogen-zeolite softeners, is not strong enough to make a substantial attack on boiler metal during the short cleaning period. Southern California Gas Co., butadiene div., Los Angeles, Calif., has used the effluent from such a softener for cleaning separately fired superheaters and several boilers.

Softening Process. When regenerated with sulphuric acid, hydrogen zeolite removes calcium, magnesium and sodium cations from water, replacing them with hydrogen. The softener effluent then contains hydrochloric, sulphuric and carbonic acids in proportion to the chlorides, sulphates and carbonates in the raw water. Table I, p 100, gives analyses of the raw water and effluent from the hydrogen-zeolite softener used by this plant.

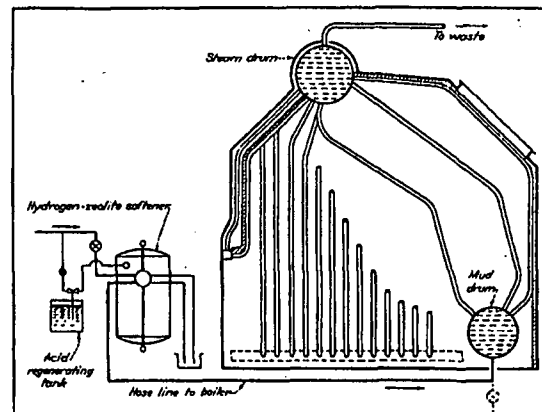
The effluent has a mineral acidity of 145 ppm in terms of calcium carbonate. This compares with an acidity of 50,000 ppm for a 5% acid solution, commonly used with an inhibitor for boiler cleaning. Acidity from a hydrogen-zeolite softener remains constant for any given raw water so there is no problem of mixing concentrated acid with water.

Cleaning Superheaters. First application of hydrogen-zeolite treated water was for cleaning a separately fired hair-pin-type superheater, in October 1944. Up to that time there had been no established practice for cleaning these units other than to use distilled water. This is a slow and costly process.

For the first job, water from the hydrogen-zeolite softener was delivered to the superheater at a rate of 10 gpm for approximately 45 hr. Water entered the inlet header at a pH of 2.6, and cleaning was continued until the pH of super-

Preliminary experiments using slightly acid water from an ion exchanger for cleaning superheaters led to successful tests on boilers. Amount of salts in raw water is controlling factor

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EFFLUENT FROM the hydrogen-zeolite softener can be carried to the mud drum through a rubber hose if rubber-lined piping is not readily available

heater discharge was about 4.4. Table II indicates the rate at which solids were picked up. Initial discharge from the outlet header was high in total solids and had a pH greater than 11. As washing progressed, total dissolved solids and pH decreased, an indication of cleaning progress.

Present cleaning method is to pass hydrogen-zeolite treated water through the superheaters at 22 gpm for 6 to 8 hr, or until pH of the discharge is about 4.4. Diagram on p 101 shows total solids and pH of water leaving the

superheater tubes from the start to the end of a normal cleaning operation. As indicated, it requires over 2½ hr to fill the superheater tubes at 22 gpm. After acid washing, each tube is rinsed with city water at 40 psi for 2 or 3 min.

Effects of Cleaning. When new, the superheater-tube temperature for normal operation was 740 to 750 F. After 5 months' operation scale or deposits increased the tube temperature to 760-790 F. After cleaning with hydrogen-zeolite water the average temperature drops to 680-760 F. This is substantially lower