TWO UNIQUE USES OF SLAG

The aptness of the phrase "Slag — The All-Purpose Construction Aggregate" is illustrated by the many special, and in some instances unique, purposes for which slag is used. Two of these are described herein.

One involves both visual and engineering requirements as a cover for large areas around club and swimming pool facilities at the Pleasant Run Country Club, Fairfield, Ohio. As figures 1 and 2 show, the requirement not only involved the need for visual attractiveness but also the ability to resist displacement and erosion on steep slopes.

The vesicular structure of slag provides a pleasing visual impression and enhances the capability of the chunks to interlock and remain in place. This is especially important on slopes. Its attractive gray color provides excellent contrast with the surrounding landscape and provides an important scenic value. Reflected light is not a problem.

The size of the slag ranged from 2½" to 1½". This size optimized appearance and stability and provided a roughness channeling walking to desired locations.

These unique characteristics motivated the Club to specify slag and subsequent in-place performance has justified its selection.
The second application involved a sewage treatment system for a mobile home park in Hamilton, Ohio, where slag granules were employed as a surface filter — see figures 3 and 4.

Slag granules provide unique properties which are very important to the operation of a sewage filter. Its vesicular structure, not found in other aggregates, provides minute surface voids, even in small particles, which trap the solids in the sewage, and greatly increase the efficiency of the filter. Biological treatment of the waste water also is enhanced by the greater surface area of the vesicular particle structure.

Another bonus is the lighter weight of slag — about 20% less than natural aggregates. This minimizes the tendency of the filter surface material to work down into the coarser sizes of aggregate in the layers below the surface; and results in less weight of slag being needed for the filter volume specified.

Slag granules were sized to pass through a #10 mesh and be retained on a #35 mesh sieve.