"S" Shaped Serpentix Will Play Large Role In New 6 MGD Plant In Florida

Contracts will be awarded in early 1988 for the $10 million renovation and upgrade of the Ormond Beach Waste Water Treatment Plant (OBWWTP). Bidding was based on two separate designs, prepared by the Florida city's engineering consultants to "...ensure maximum competitive pricing on all required equipment and processes."

Two major aims of the project are to increase the plant's design capacity to six million gallons/day (mgd) from its present 4 mgd rating and to convert its sewage treatment process to biological oxidation to obtain lower nitrogen and phosphorus levels, according to Public Utilities Director Richard E. Wolff.

Biological oxidation will be compatible with a related project which was recently completed, Wolff explained. It is a sludge dewatering facility equipped with two centrifuges and a 70 foot three-dimensional continuous path conveyor designed to

THE SERPENTIX CONTINUOUS PATH conveyor at Ormond Beach forms a giant "S" as it transports sludge received from the overhead centrifuges to the overhead hoppers for transfer to trucks.
our specifications by Serpentix Conveyor Corporation, he added.

Completion of the OBWWTP renovation/upgrade is anticipated in 1990, according to Robert A. Elefritz, PE -- project manager with the Ormond Beach consulting engineering firm of Briley, Wild & Associates, Inc.

Wolff and Elefritz described the upcoming renovation as "a very difficult project" -- one where new plant components must be constructed or installed and old equipment must be upgraded or replaced on the existing site while maintaining the present facility's current 4 mgd design capacity.

"Unless we run into trouble with our renovation project, we should be okay as far as treatment is concerned," Wolff said. "We are now operating at 75 percent of capacity and facing three years of work to achieve six mgd capability. By that time, anticipated area growth should take us up to our present capacity."

Wolff explained that the plant is currently running activated sludge, operating with two 250,000 gallon digesters and mechanical aeration. Wasting from the digesters to the centrifuges -- usually operating five days per week -- results in the production of approximately six to seven tons of sludge per day.

A third major aim in the renovation at OBWWTP is the construction of a centralized lift station to bring sewage into the plant from a single source.

Ten separate lift stations, fed by four force mains -- one each from the western and eastern parts of the city and, two from the beach side -- currently feed into the plant. When the renovation is completed those 10 lift stations will feed into the new centralized lift station, Wolff said.

THE OVERALL VIEW OF THE ORMOND BEACH dewatering facility (lower right, Page 8) is expected to change over the next several years when a biological oxidation ditch is installed behind the structure.