BREAKTHROUGH IN ANIMAL WASTE TREATMENT

Lemna International completes innovative hog waste treatment facility at large Slovenian farm

Minneapolis, Minnesota----Lemna International has completed construction of a state-of-the-art wastewater treatment plant for pig waste at Farma Nemscak, Slovenia. This project, which took four years to implement, represents a breakthrough in the difficult field of animal waste treatment. The Lemna Anaerobic Sequencing Batch Reactor (LASBR) technology is the heart of the facility, supplemented by a preliminary treatment process from Germany, and followed by polishing and solids handling processes from the USA.

The LASBR is an innovative high-rate treatment process developed in the United States to treat high-strength wastes such as those from animal farms, food processing facilities, dairies, and slaughterhouses, as well as other types of industrial waste. According to Bryan DeSmet, Lemna Vice President of Engineering, "The main advantages of the ingenious LASBR process are full odor control, very low energy consumption, and simple operation. In addition, the footprint for the plant is very small, yet it fully addresses treatment of both solid and liquid waste." The LASBR technology provides for the recovery of biogas created during treatment, and this biogas can be used to offset energy costs.

Farma Nemscak is one of the largest hog growers in Europe, raising 57,000 pigs annually. After searching for technical solutions around the world, farm management organized an international competition in 1998. Although faced with fierce competition from European companies, Lemna won. A thorough review of Lemna's technological solution by the Ministry of Environment of Slovenia, resulting in its acceptance, took two years. Another two years were required for design and construction of the facility.

Animal waste causes serious problems worldwide. At most farms around the world, simple lagoons are built to store the waste and rudimentary processes are used to separate solids and liquids. Offensive odors frequently result, and overflows and leaks from the lagoons can cause visible damage to the environment, such as fish kills in nearby streams. However, the invisible groundwater pollution caused by such facilities is actually a more serious problem since it will affect water supply and public health for decades. Viet Ngo, President of Lemna International observed, " A single pig produces the waste equivalent of five people, at a very concentrated level. Although most governments worry about wastewater coming from cities, waste from farms flows into our surface waters and groundwater with little or no treatment. Waste from a 20,000-hog farm is equivalent to that from a 100,000-person city, but with many times the ecological impact!" Ngo added, "In the Catalonia region of Spain, there are more pigs than people. Can you imagine the stress on the environment?" In the U.S., the hog and cattle industries are coming under increased scrutiny and growing public pressure because of untreated or insufficiently treated wastes.

Ngo, who has traveled frequently in Slovenia said, "We are proud to make a small but significant contribution toward the preservation of the environment in this lovely country. Farma Nemscak bears the distinction of having the first full-scale LASBR process in the world. We thank Mr. Horvat and Mr. Smodic, the farm managers, for their courage and determination to build this innovative facility."