

CASE HISTORY

CLIENT: Municipal
LOCATION: Arkansas
APPLICATION: Ammonia removal
PRODUCT: Lemna Polishing Reactor™

BACKGROUND

Our client, a community in Arkansas, is nestled in an area that abounds with catfish ponds and small farming operations. Their water tower proclaims that they are the catfish capital of the United States. This small, rural community was faced with the difficult task of complying with



stringent ammonia limits recently set by the state. Conventional treatment was considered by the Town's engineer, however, it was found to be prohibitively expensive and not conducive to their existing facultative wastewater treatment pond. Lemna Technologies was requested to provide an economical solution that could be readily added to the facility without interruption or requiring additional operator certification and training.

PROJECT INFORMATION

Critical to design, the system had to be flexible to fluctuating flows, BOD and TSS without adversely affecting treatment. Electrical consumption, maintenance, versatility and projected system performance were the criteria the design was judged upon.

LEMTEC™ SOLUTION

Lemna provided our low maintenance, attached growth media system (Lemna Polishing Reactor™) that simultaneously reduces BOD and ammonia. The system was kept basic in design, no moving or corrodible parts in the water. The civil construction required only basic piping and a four-sided concrete structure with serpentine baffle walls. Aeration for the 700,000 gpd facility was provided by three 10-hp blowers, two operating and one stand-by.

RESULTS

Thirteen Lemna Polishing Reactors™ were assembled in less than two days and installed in less than one. Both the contractor and engineer were extremely satisfied with the simplicity of operation and ease of installation.