

## **New process to treat municipal and industrial wastewater**

Cass Water Engineering, based in the United Kingdom, has developed a new system for treating municipal as well as industrial wastewater. The patented Cyclic Activated Sludge System (CASS™) is the most advanced method of sequencing batch reactor (SBR) system available for treating wastewater, with more than 130 installations operating successfully worldwide including in Mexico, China, the United States, the United Kingdom and Thailand. It provides considerable operational simplicity, flexibility and reliability over other activated sludge processes. Some essential features of the CASS SBR include:

- A unique self-regulating technique allows filamentous sludge bulking control through the selector zone and return of sludge biomass within the reactor;
  - Use of stored carbon sources for denitrification and phosphorous removal rather than oxidizing the associated BOD allows the CASS SBR reactor basin to be approximately 20-30 per cent smaller than competitive systems;
  - Operates with interrupted flow during the decant sequence which prevents the possibility of short-circuiting and effluent deterioration;
  - Incorporates nitrogen and phosphorous removal which is integral to the containment of filamentous sludge bulking;
  - The VARI-SKIM™ decanter is mechanically designed to operate with a constant rate of discharge without stop-start operation, preventing straggler floc scour from the sludge blanket; and
    - Positive exclusion of floating materials to prevent effluent deterioration.
- Some of the benefits offered by the CASS technique include: low capital cost, high-quality effluent, operator-

friendly, reduced operational costs, small footprint and proven flexible design. Wastewater from municipalities, residential housing developments, dairies, hotels, food processing, meat and poultry processing, hospitals and pharmaceuticals, and landfill leachate can be treated by this system. *Contact: CASS Water Engineering, Wentworth Business Park, Tankersley, Barnsley S75 3DL, the United Kingdom. Tel: +44 (1226) 224 424; Fax: +44 (1226) 224 425; E-mail: info@sbr cass.com; Web-site: <http://www.sbr cass.com>.*