New system for waste and biomass combustion

Advanced Alternative Energy Corp., the United States, has developed new technology for waste and biomass combustion. The new process overcomes hurdles commonly associated with burning feedstock fuels of difficult combinations such as biomass, solid wastes or agri-residue.

The Sequential Grates™ Combustion System incorporates an automatic infeed conveyor that feeds a holding hopper which in turn "batch stokes" solid fuels on to grates within the combustion unit itself. These fuels are then ignited and dropped from grate to grate while burning, until completely converted to ash. A combination of smoke re-circulation and other pollution abatement technologies are employed to minimize air emissions. Some benefits of the new system include:

- Automatic, co-firing, stoking and de-ashing of any combination of solid, liquid or gaseous fuels, in a single, dependable and effective system, with successively starved, neutral and excess air combustion, in a single combustion chamber, using gravity for dependable and "sequential" fuels stoking movement; and
- Cleaner burning with lower "upstream" and downstream" costs by lowering the upstream fuels pre-conditioning costs and downstream pollution abatement costs.

The novel system is available in different capacities, and co-fires any combination of fuels with a high turndown capacity of up to 90 per cent. *Contact: Advanced Alternative Energy Corp., 1207 N. 1800 Rd., Lawrence, KS 66049, the United States. Tel: +1 (785) 8421 943; Fax: +1 (785) 8420 909; E-mail: lbj@cj networks.com; Website: http://www. aaecorp.com.*