Project Case Study

Inverurie Thermal Sludge Dryer

Client	:	North of Scotland Water
Value	:	£1.3 million
Capacity	:	300 kg/hour gran. dried solids
Population	:	20,000 pe
Process	:	AB Torkapparater Bojner Drying System™
Control System	:	SCADA
Contract Type	:	Turnkey (Green Book)
Scope of Works:		Process, Mechanical, Electrical & ICA Works

Description

The town of Inverurie, some 26 km north of Aberdeen has a current domestic population of 10,400. The wastewater treatment plant at Inverurie also treats trade waste from an abattoir, food and number other commercial premises in the area, giving a crude sewage load up to 20,000 pe.

An important part of the extensions at Inverurie is the new sludge treatment centre with dewatering and drying facilities that formed part of a full scale trial on the suitability of sludge pellets as an agricultural fertiliser.

The sludge drying plant, which incorporates a centrifuge by Solids Control Systems and a thermal sludge dryer by AB Torkapparater of Sweden, is housed in a “new build” extension to the existing treatment building.

This plant will process dewatered, digested sludges and produce a granular product of 3mm to 6mm size at approximately 96% dry solids. The granules will be used as a soil conditioner/fertiliser by local farmers in accordance with NOSWA’s sewage sludge disposal strategy.

Prior to the order being secured by Purac, extensive pilot work was carried out on site supported by full scale trials on the Inverurie sludge at the AB Torkapparater installation in Himmerfjarden, near Stockholm, Sweden. The pilot plant, which is available to all our clients in the UK, went on to conduct other successful trials at Tilbury and Cleethorpes sewage treatment works.

The Inverurie plant—the first of its kind in the UK—will provide dewatering by centrifuge, followed by sludge drying in the AB Torkapparater dryer to produce 300 kg/hour of granulated dried solids which will be bagged before supply to agriculture.