

Non-technical Summary

The plant has operated under a waste facility permit since 2010. As part of a recent sector EA permit review, we were advised that under the IED the maximum treatment capacity for an AD plant operating as a waste facility is 100T/day. The design capacity of the plant is 202T/day and daily inputs are always in excess of 100T/day. Therefore, the plant now needs to operate as an Installation. In order to continue operating the plant in compliance at current levels the existing permit needs to be varied to an Installation permit.

Other than changing the permit type there are no other planned change to the operation of the plant. The site operates to the Best Available Techniques (BAT) Conclusions for Waste Treatment (2018) document.

The installation is located within a corner of the BV Dairy factory site. The installation comprises two storage tanks for incoming, pipe fed, liquid dairy wastes. These two waste types are blended and added to the main Anaerobic Digester. By-products of the digester consist of:

- bio-gas which is supplied to a 0.6MW (thermal) gas engine with the resultant electricity used by either the factory or supplied to the grid via Feed-in Tarif (FIT);
- digestate which is sent off-site for landspreading for agricultural benefit; and
- waste waters which are returned to the factory sewer connection and discharged to Wessex Water for treatment with a greatly reduced COD from the original factory by-products.

The whole site is within a depression engineered to provide impermeable containment should there be a failure of any of the storage vessels or connecting pipework. All vessels are enclosed and connected by pipework to contain odours and bioaerosols.

The bio-gas is extracted by a pump and either supplied to the engine or if this is unavailable, burned in a ground flare. Sampling of the engine exhaust is conducted annually to ensure emissions are within the permit limits. Depending upon the use of the flare, sampling may also be required from the flare stack.