

Anaerobic Digestion Audit Data Report 2015 - 2018

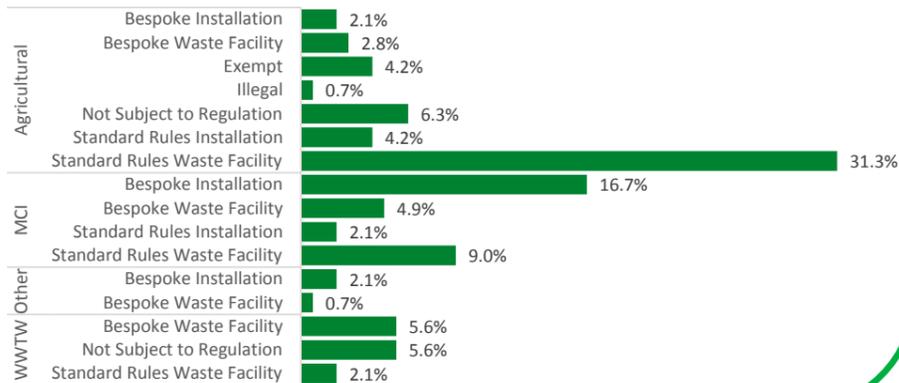


This document summarises the findings of a national audit campaign of Anaerobic Digestion (AD) plants in England between 2015 and 2018. The objective was to ensure risk was being managed using correct operations and infrastructure. Sites audited were prioritised following a desktop assessment and were a sample of our total permitted stock, all of which continued to be subject to routine regulatory activity.

Audit Summary



	Number of audits	%
Agricultural	74	51.4%
Municipal/Commercial/Industrial	47	32.6%
Other	4	2.8%
WWTW	19	13.2%
Total	144	100.0%



Commentary

Wastewater Treatment Works ('WWTW') sector - 'Permitted Sites' includes AD treatment and those with only permitted gas engines.

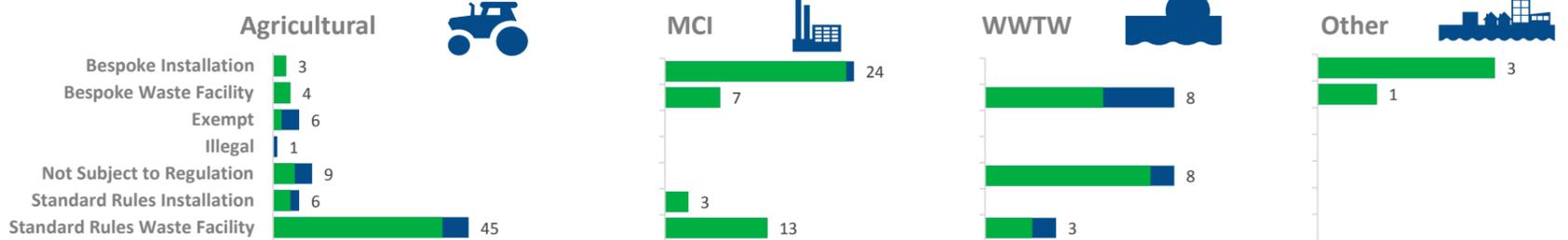
'Municipal/Commercial/Industrial' (MCI) - includes all AD plants other than those in the WWTW, Agricultural and Other Sectors, i.e. food and other biowastes.

'Other' - includes AD plants associated with other industries, e.g. food & drink, paper & pulp.

'Agricultural' - Treating agricultural feedstocks/wastes only (includes crop/crop residue only AD plants)

'EMS' = Environmental Management System

Permits and Management Systems



Percent of permitted sites with an EMS



Percent of the EMS's accredited by a UKAS accrediting body



Permitted sites which failed to self-audit procedures and performance **19%**

Most of these sites are within the Agricultural sector operating with Standard Rules Waste facility permits

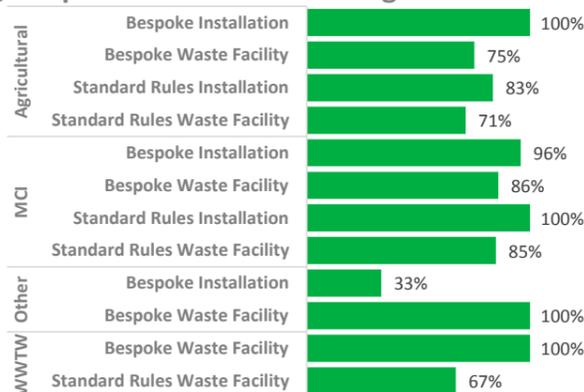
Agricultural sites not subject to regulation



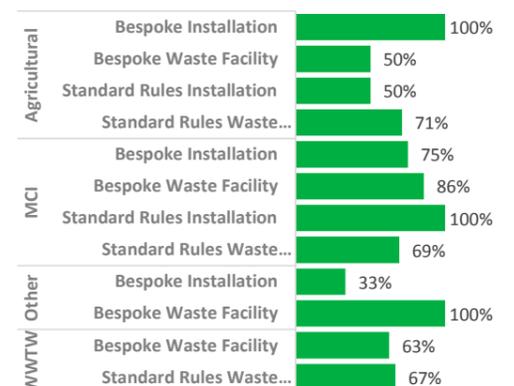
Technical Competence, Responsibilities and Training



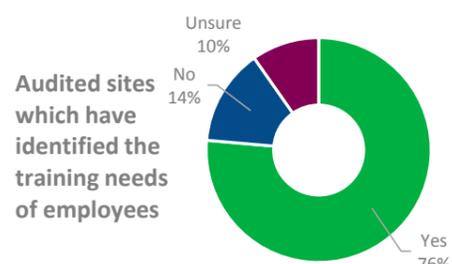
Permitted sites with a Technically Competent Manager (TCM) **82%**



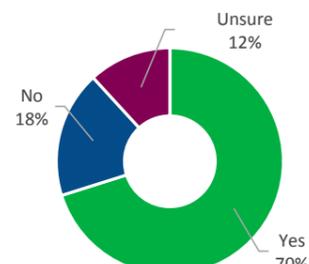
Permitted sites with defined roles and responsibilities **71%**



Permitted sites without a TCM where required to have one **17%**



Sites able to provide training records for inspection

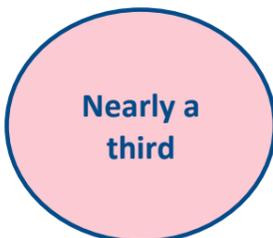


Sites within the Agricultural sector holding a Standard Rules Installation permit were most commonly unable to demonstrate robust training documentation (67%)

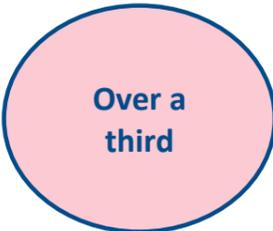
Health and Safety



Permitted installation AD plants that could not demonstrate the competency of the person who produced their DSEAR plan



Sites without robust procedures for maintaining their carbon filters



Inspection and Maintenance



Majority of permitted sites where tank integrity was not inspected every 5 years are in the Agricultural sector operating under Standard Rules Waste Facility permits
Note: some plants may be <5 years old

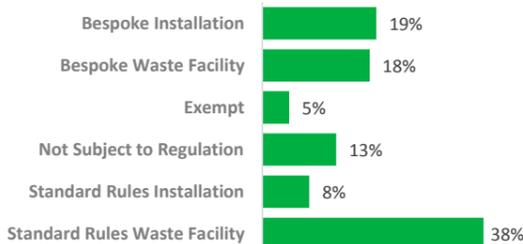
Management of Grits and Sediments



Operators identify the need to de-grit their tanks



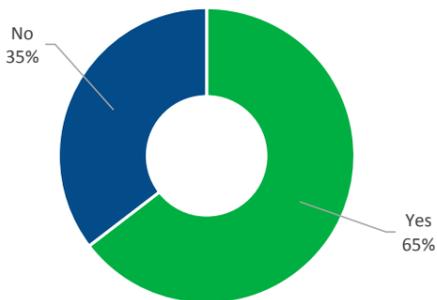
Operators who do not de-grit their tanks



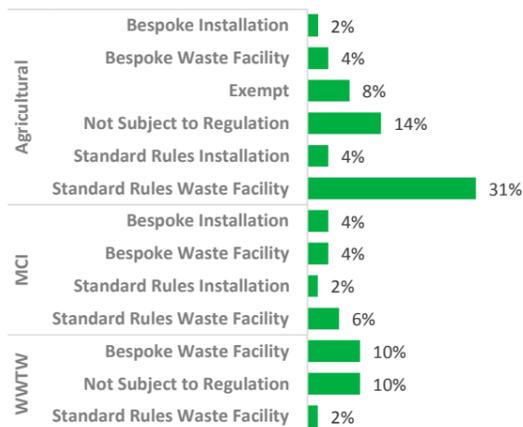
Majority of operators who didn't identify the need to de-grit their tanks were in the Agricultural sector operating under Standard Rules Waste Facility permits

Secondary Containment and Construction Quality Assurance (CQA)

Sites with secondary containment



Sites without secondary containment



The majority of sites without secondary containment are in the Agricultural sector and have Standard Rules Waste Facility permits or are Not Subject to Regulation

Tanks that have been built to a design standard and have been CQA validated



Sites that are at risk of impacting on critical infrastructure if a major incident were to occur



Gas Utilisation and Third Party Support



Fewer than a quarter of sites audited were upgrading biogas for grid injection or transport use



Most sites without an emergency flare are in the Agricultural sector, operating under Standard Rules Waste Facility Permits

Sites with no emergency flare that have vented gas to the atmosphere



Operators relying on 3rd parties to interpret monitoring data

