

## Service – DSEAR Assessment/Gas Safety



**Marches Biogas provide gas safety assessments in line with the Dangerous Substances and Explosive Atmospheres (DSEAR) Regulations. These are also referred to as PEXA Zoning Reports, (potentially explosive atmospheres).**

Our experienced Process Engineers visit the anaerobic digestion site to undertake the survey, the findings of which are presented in a report which would include any recommendations for the improvement of gas safety, together with any zoning documentation.

Marches Biogas is equipped to support the client with the implementation of any recommended process improvements. Our design engineers would develop detailed design for any modification which may require the procurement of parts or the fabrication of pipework and fittings within our workshop facilities. Our Mechanical Engineers would then attend site to install new pipework, valves, motors and instrumentation. They work to detailed risk assessment and method statements (RAMS) and undertake pipework purging with nitrogen gas.

For the past two years, Marches Biogas has worked closely with NMCN carrying out DSEAR assessments across many Severn Trent AD facilities. Detailed reports were issued with improvement recommendations. NMCN then requested a quotation for the implementation of many of the suggested process changes which were then undertaken across several sites.

An example of this is at Rugby WWTW where the biogas boilers were fitted with a new Safety Shut Off Valve (SSOV - shown in the photo above) which was not previously installed. The SSOV is powered open and slams shut if the gas detection system in the boiler room is alarmed, preventing any further flow of gas into the boiler house.

A detailed design was drawn up allowing the pipework fittings to be fabricated in the workshop, with the valve procured. Our Mechanical Engineers then attended site to install the new valve with pipework isolated and purged out with nitrogen. The old pipework could then be safely removed, with the new fittings and valve all installed within a day. The Severn Trent electrical engineers wired up the SSOV on the same day ensuring it was left fully operational.



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