

Medium Combustion Plant and Specified Generator Permitting

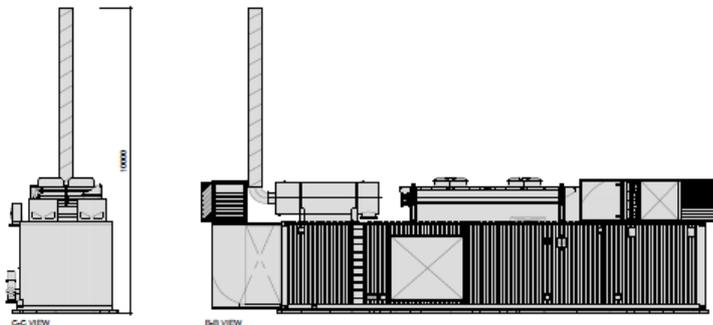
Project:	Medium Combustion Plant and Specified Generator Permitting
Location:	Lancashire
Regulatory Authority:	Environment Agency
Brief:	Preparation of an Environmental Permit application and CHP-R assessment

PROJECT

Enzygo recently prepared an Environmental Permit application for a 49.9MWth gas-powered combustion plant. The facility is designed to participate in National Grid's Short-Term Operating Reserve (STOR) program, providing local electricity supply during peak demand periods.

The proposed plant is subject to the requirements of the Medium Combustion Plant Directive (MCPD). The MCPD was transposed into Schedule 25A of the Environmental Permitting (England and Wales) Regulations 2018. Schedule 25B (Specified Generators) was added to set tighter emission limits for plants generating electricity in the power reserve sector.

Medium Combustion Plants and Specified Generators must meet strict Emission Limit Values; the amendments to EPR have also brought MCP (<50MWth) under the purview of national regulators (EA and NRW). The permitting regime is now the principal mechanism for setting emission limits to protect local air quality objectives and public health, and requirements to periodically monitor emissions and regulate the operation of the plant. This is a new regulatory regime for many operators and developers in the reserve power sector.



Containerised gas-powered gensets are the technology of choice for peaking and balancing plants, due to fast start up and shut down times

Modern gas combustion plants are often designed to meet the ELV for NO_x of 95mg/Nm³, whereas diesel plant often requires secondary abatement to meet the ELV's

WHAT WE DID

Whilst we always seek the most cost-effective and straightforward route through EPR for our clients, this plant was considered to require a Complex Bespoke Environmental Permit. Enzygo was commissioned to procure air pollution dispersion modelling to support the application, given our understanding of the methodologies expected for these assessments alongside our experience of the permitting process. We have a high success rate in obtaining combustion permits for plants of all sizes and technologies.

The assessment demonstrated that the plant could meet the required ELV's and could operate for the number of hours proposed without compromising local air quality objectives. With concerns over air quality at the forefront of public and government concern, Enzygo has the capability to find solutions for operators that protect the environment and public health, offering advice on technology choice, stack height, engine configuration and secondary abatement.



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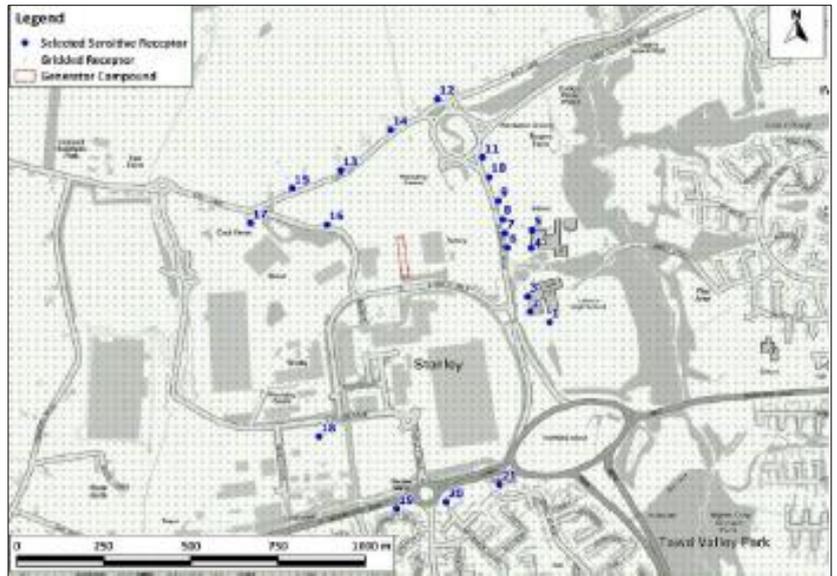
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CASE STUDY

The air quality assessment was presented as part of the Environmental Permit application, which included details of the proposed monitoring regime, maintenance program and pollution prevention measures in place to manage risks to the environment.

We know that new regulatory regimes can quite rightly appear

complex and that uncertainty on timescales and costs can constrain project development. We also appreciate that commercial imperatives require flexibility from all partners. We always seek to add value to projects through our multi-disciplinary knowledge, which in turn provides our clients with competitive advantage in an increasingly crowded market.



At Enzygo, we pride ourselves in offering the experience and expertise to navigate the regulatory landscape with confidence.

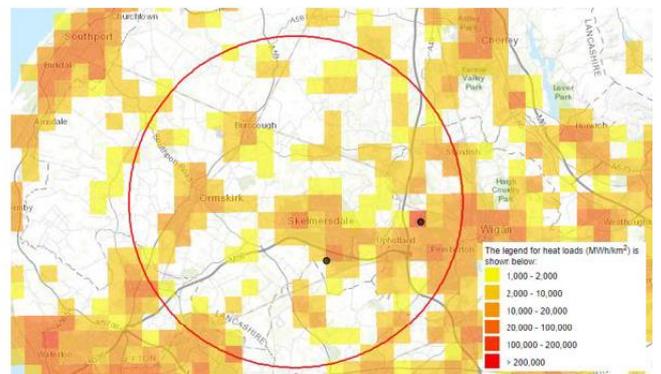
Guidance Permits for schedule 25B, tranche B specified generators: RPS 219

Updated 26 February 2019

Our permitting consultants sat on the MCPD steering group and have followed and influenced the regulations since their inception. We recognise the utility in instilling trust in the regulators with which we work and across all our technical disciplines, our accurate assessments and professional reporting enable us to provide reassurance when our applications are received by regulators. This reduces the likelihood of applications being held up in determination and the potential to effect commercial timescales.

CHALLENGES WE FACED

This application was one of the first for Enzygo submitted under this new regime, and at the time much of the guidance was still in draft form. Being over 20MWth, the plant was also subject to the requirements of Schedule 24 of the EPR (transposing the requirements of the Energy Efficiency Directive). No regulatory guidance for plants of this size was in place at the time of application, with the only available guidance designed for larger combustion plants and energy from waste facilities. Rather than hold up the permitting process or pay for expensive and potentially lengthy pre-application with the regulator, Enzygo successfully argued that the need for a complex and expensive cost benefit analysis required under Schedule 24 could be screened out. The assessment provided for this site described the technical and economic difficulties in utilising CHP in this instance, and whilst clearly considering potential heat loads within the vicinity of the site, demonstrated the lack of suitable and viable options.



Mapping theoretical heat demand within the vicinity of the proposed plant.



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CASE STUDY

WHAT WE ACHIEVED

Our client now has a permit in place and the project is in its final stages before becoming operational. Standby plants such as this provide the flexibility and district level grid re-enforcement that enables a further deployment of renewable energy and the decarbonisation of our electricity supply.

The permit was delivered in a timely manner and despite delays within the regulator, was delivered to support the commercial deadlines of the operator. Enzygo continues to liaise with the regulatory officer post submission, and to support our client with their monitoring requirements under the permit.

FURTHER WORK

Enzygo continue to support this client on a number of developments, with Enzygo promoting the sites through both the permitting and planning process. Being a multidisciplinary consultancy allows us to support developers throughout project development, offering advice from site selection and the scoping of technical assessments, through planning and on to secure Environmental Permits. We believe that to reduce risk in the development process, and to create the highest commercial benefit from realising the detail in both regimes, it is beneficial to consider the permitting and planning processes simultaneously.

Our technical teams can support developers of combustion plants with the following services and we can tailor our scope to specific projects and offer competitive packages for all aspects of your combustion plant development. Our comprehensive suite of technical assessments and accurate scoping provides reassurance to LPA's and raises the likelihood of consent being granted in a timely manner.

- Planning – Site reviews, feasibility studies and experience promoting planning applications in sensitive areas
- Noise – Assessments to required standards and experience in mitigation measures for combustion sites
- Landscape – Landscape and Visual Impact Assessment and Landscape Strategy Plans
- Hydrology – Flood Risk Assessments and Drainage Strategies
- Ecology and Arboriculture – Preliminary Ecological Appraisals, Phase II surveys, impact assessments and tree surveys
- Geo-environmental – Preliminary Risk Assessments, Phase II studies and remediation strategies
- Heritage and Air Quality – we have long standing relationships with experienced third-party consultants with which we partner to offer these services



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