

Our application for a Combustion Activity Environmental Permit

June 2018



Why is combustion equipment needed?

Horizon is proposing to build and operate Wylfa Newydd, a new nuclear Power Station on Anglesey.

The Power Station design includes some conventional (non-nuclear) combustion plant. These comprise steam-raising boilers, which provide steam to operate some of the process equipment and for heating, as well as standby generators that supply electricity to the Power Station in the event that the supply from the national grid is lost. There are also some fire water pumps on site. All the combustion plant will use diesel fuel.

The steam-raising boilers will be operated throughout the year to supply the steam required at the Power Station; the steam demand will vary depending on heating and process equipment requirements.

The standby generators will operate in the unlikely event that there is a loss of supply from the national grid, to supply electrical power to pumps and other equipment required to allow the Power Station to continue to operate safely and securely.

In order to ensure that the standby generators will operate when required, they will be maintained and tested on a monthly basis. Once installed and commissioned, each standby generator will be test-run for approximately 55 hours a year.

Horizon needs an Environmental Permit from Natural Resources Wales (NRW) to operate the boilers, standby generators and related equipment.

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The combustion equipment

The different types of conventional combustion plant needed at the Wylfa Newydd Power Station are:

Boilers

- there will be six steam-raising boilers.

Standby generators

- **emergency generators:** there will be six Emergency Diesel Generators, required to supply power to safely shut down the nuclear reactor in the event of a loss of the off-site power supply;
- **back-up building generators:** four of these would be housed in the back-up building. They are required to supply electrical power to alternative critical equipment via a separate system; and

- **auxiliary standby generators:** four of these will supply power to site security and other emergency response systems not directly related to reactor safety, such as environmental protection equipment, firefighting facilities and site supporting infrastructure.

Other equipment

In addition to this, there are also associated fuel and oil storage tanks, two diesel fuelled firewater pumps and cooling systems for the generators. Exhaust gases are discharged through stacks.

Our application to NRW

Horizon has applied to NRW for a Combustion Activity Environmental Permit. Our application describes the combustion plant and its operation in more technical detail, including:

- how we'll select and operate the combustion plant to control emissions and ensure the plant operates efficiently;
- how we'll safely manage the associated raw materials (such as diesel fuel), water use and waste materials;
- emissions to air and noise levels, and an assessment of the emissions' environmental impact; and
- how we'll monitor and manage the plant's operation.

Next steps

Having submitted our application, NRW will conduct a public consultation and carry out its own assessment of the potential environmental impacts before considering whether to issue an Environmental Permit.

For more information visit our website at www.horizonnuclearpower.com where you can view a copy of our full application, together with the supporting documents.