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Barry biomass facility – transitioning from pre-commissioning to operating

What has happened up to now?

Pre-commissioning works involved flushing the steam system pipework before allowing steam into the turbine to start commissioning of the electricity generating system.

The turbine needs very high quality steam in terms of mineral levels and this blowing activity allows the steam quality to be checked and pipework to be tested to prevent damage of the turbine when it first starts up.

The steam was being released from a temporary vent in the boiler house while these tests were being completed. This will not be part of normal operations once the facility begins operating.

Steam generation involved the use of a diesel generator. No wood has been accepted or burnt at the site to date. Whilst both the steam plumes and the smoke from the generator were visible, they are not harmful to the environment or people's health.

What are the next steps?

The site is now moving on to the next stage of commissioning at the plant.

This will involve increasing the steam pressure using the diesel burners and passing the high pressure steam through the turbine bypass to the condensers in preparation to start the turbine for electricity generation tests.

The increased heat input may increase the main stack plume density under certain weather conditions, but this is normal and emissions will still be well within safe levels. Testing of steam pressure safety valves may result in short periods of whooshing noise and visible clouds of steam, although not as much as earlier this month. Bypass operation may result in longer periods of elevated noise similar to a jet aircraft at altitude. These periods will be minimised.

After this work is complete, steam turbine and generator testing will be undertaken during **week commencing Monday 19 March 2018**. This is not expected to result in noticeable noise, although the stack plume may be present. After this testing is completed, we understand there will be a long period of plant preparation and testing ahead of first waste wood firing. Further details of what to expect will be provided ahead of this final commissioning phase.

Who is regulating what?

All large industrial facilities in Wales have a level of dual regulation between **Natural Resources Wales** and the **Local Authority**.

Natural Resources Wales regulates any activities covered by the permit. This includes commissioning and normal operation of the gasification plant, as well as associated wood fuel storage.

Vale of Glamorgan Council's Shared Regulatory Services will continue to regulate matters relating to nuisance from activities not covered in the permit (such as light pollution and construction noise).

The **Council's Planning Enforcement Team** is also continuing to monitor the works and operations being carried out at the site.

NRW and SRS are working closely to ensure a robust and joined up approach.

What are you doing about complaints about the site?

Both regulators are investigating issues which arose in March relating to smells, dust and noise under their respective regulatory powers. These enquiries are ongoing at this stage.

NRW and SRS officers have been out and about in Barry several times last week and over the recent weekend and have been unable to verify any smells specifically from the Biomass no2 site. However, we are aware that there have been two incidents of burning within the dock which are being investigated further and also an increased use of domestic wood/coal burning as a result of the cold weather which

may have been contributing to smells in the area. Both regulators will continue their presence in the area and follow up on any findings.

What hours should the site be operating?

The environmental permit issued by NRW does not limit operating hours for those activities covered by the permit.

However, the permit requires that operations are controlled so as to prevent or minimise off-site impact.

What can we expect once it is operating fully?

Once fully operating, the plant will have CEM (Continuous Environmental Monitoring) in place. This applies appropriately calibrated and certified equipment to continuously monitor emissions from the stack. NRW will periodically audit their use and management of the equipment itself and checking of the emissions will form part of our regular and ongoing regulation of the site.

CEMs will monitor the main pollutants, such as oxides of nitrogen and dust, associated with the plant operations at all times while the plant is running. Periodic checks using certified personnel and equipment will be used to check emissions of trace pollutants, such as chromium VI and arsenic. These monitors and checks are used to demonstrate that the plant is operating within the permitted emission limits. These limits are set at a level that will protect people and the environment. The limits apply at the point of release from the main stack.

The pollutant levels from the plant in the air at ground level will be significantly lower than the levels released from the stack due to mixing associated with local weather patterns. Calculations show that the ground level pollutants will not cause any air quality standards or targets to be exceeded and there will be no adverse health affects associated with the emissions from the plant.

Our regulation of the site involves regular checks on site, both unannounced visits and planned audits. The permit has several conditions regarding operating techniques, emissions monitoring, feedstock management, waste management and noise and odour management. We also require submissions of data from the operator's self checks and monitoring.

We take any breach of permit seriously, and act proportionately based on likely impact. This can involve non-compliances scored against the operator's permit, which can result in a financial penalty. For more serious breaches, we act in line with our Enforcement and Prosecution policy.

How do I report concerns about activity on the site?

To report light pollution or construction noise please contact **Shared Regulatory Services on 0300 123 66 96** (office hours only) or pollution-vale-rswales@valeofglamorgan.gov.uk

To report concerns about pollution from the site please contact **the Natural Resources Wales incident hotline on 0300 065 3000**.

The Council's Planning section are dealing with a Planning Application relating to a fire tank, building and relocation of parking at the plant and enquiries relating to that should be directed to planning@valeofglamorgan.gov.uk.

Where can I read more?

You can read more about the [facility's permit, and the conditions placed within it here](#).