Notice of request for more information
Environmental Permitting (England and Wales) Regulations 2010

Notice requiring further information

To: Company Secretary
South Wales Wood Recycling Limited
Old Post Office
Curwen Terrace
North Cornelly
Bridgend
CF33 4AW

Application number: PAN-000440

Natural Resources Wales, in exercise of its powers under paragraph 4 of Part 1 of Schedule 5 of the above Regulations, requires you to provide the information detailed in the attached schedule. The information is required in order to determine your application for a permit, duly made on **06/07/2016**.

The information requested should be sent to the following address by **21/11/2016**.

Information should be sent to:

Alys Rook at alys.rook@cyfoethnaturiolcymru.gov.uk

Name	Date
Alys Rook	**31/10/2016**

Authorised on behalf of Natural Resources Wales

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Schedule

1. Fire prevention and mitigation plan

You must do all that is reasonable to prevent a fire but you can't eliminate all risks. Your fire prevention and mitigation plan is part of your written environment management system and should include an assessment of fire risk on your site and the measures in place to prevent, detect, suppress, mitigate and contain fires. Many of the prevention measures will align with measures to ensure waste quantities are within the site's capacity and that wastes are stored and managed properly.

We have assessed your fire prevention plan (Fire risk assessment May 2016) in accordance with our guidance "Fire prevention and mitigation plan guidance - Waste, version 1 May 2016". Whilst the plan provides some information on proposed fire prevention measures, the plan does not satisfy all of the requirements as set out in the guidance.

The storage plan layout shows 27 stockpiles. The fire risk assessment states that each stockpile will be a maximum of 1000 tonnes and 15,000 tonnes on site at any one time. However, this is inconsistent with the storage plan as 27 stockpiles will allow 27,000 tonnes at any one time.

ACTION:

Please confirm:

i. The amount and type of waste received daily and how it will be managed.
ii. The total amount of waste and the types and forms (e.g. unprocessed, shredded, chipped, fines or baled) that will be stored on site at any one time.
iii. The maximum time each type of waste will be stored on site and how it will be managed (*please see section 4 on self-combustion, below, for further details*).
iv. The maximum size of any waste pile, stipulating the maximum length, width and depth. (The plan includes the proposed stockpile height of 5m and tonnage of 1,000 tonnes but does not include any further information on dimensions).
v. Techniques to be used to minimise the risk of fire spreading within the site or from the site.
vi. How safe access to the site for fire and rescue services and other emergency responders will be achieved.
vii. The water supplies available to the site and what quantities of water will be available within the lagoon.
viii. How the stacks will be monitored/controlled, what indicators for monitoring and temperature control (e.g. probe) will be used.

2. Site plan

You have included a "storage plan" with your application, however the fire prevention plan does not include a site plan as required in the guidance.

ACTION:

Please provide a site plan that includes all of the requirements as set out in the fire prevention and mitigation plan guidance. *This must include (but is not limited to) the details listed below. Please refer to the guidance for the full list of requirements)*:

i. A dedicated emergency or quarantine area big enough to cope with a major incident, with a clear area of at least 10m around the perimeter.
ii. A clear layout of the site.
iii. Main access points and fire service safe access points.
iv. Designated processing areas and storage areas including stockpiles of waste wood and sufficient space between stock piles to enable effective turning.
v. Location of hydrants available to the site.
vi. Any watercourse, borehole, or well located within or near the site.
vii. The location of plant and pollution control equipment.
viii. Drainage systems, foul and surface water drains, and their direction of flow and outfall points.
ix. Compass rose showing north and the prevailing wind direction.
x. Minimum clear area of at least 6m around the boundary area to allow for access and rotation.
xi. Minimum separation/fire breaks of at least 6m between each of the piles.

3. Preventing fires

Doing everything possible to prevent fire is an important part of your fire prevention plan. Your plan includes some information on measures that will be used to prevent a fire.

ACTION: The plan states that the stacks will be routinely monitored by staff and any "unusual" behaviour reported.
Please confirm:
i. What "unusual" behaviour is in a stack.
ii. The distance between where parked vehicles are kept and the piles.

4. Self-combustion

Some materials can self-combust under certain conditions. The risk increases when materials are stored for more than 3 months. You must ensure that any combustible materials are stored for less than 6 months. (Unless you have a specific agreement to exceed this period from us). It will be the responsibility of the operator to demonstrate a case before combustible waste may be stored for > 6 months.

If you are storing materials at risk of self-combustion for longer than 3 months you *must* demonstrate what additional measures you will take, including monitoring and turning of the piles. Please note that this should include sufficient space between piles to enable effective turning. You can prevent self-combustion if you focus on separation, isolation, restricting storage times and keeping materials cold.

The plan states:
If required, product should be monitored on a regular basis for temperature. This would normally occur if any material remains on site for longer than 6 months without moving.

ACTION: Please demonstrate how you will do the following:
i. Demonstrate a case why combustible waste is stored for > 6 months.
ii. Demonstrate good stock rotation for all stored materials and show how this is monitored and implemented daily.

iii. Monitor and control sub-surface temperature and moisture content with a thermal probe or other device and ensure that this is capable of reaching all parts of a pile.
iv. Routinely turn piles.
v. Detect and control hotspots within piles (note: steam is a good indicator of self-heating).
vi. Define the maximum storage time of all materials on site and show how this will be monitored and controlled.
vii. Store material in its largest form prior to processing.

5. Detecting and suppressing fires

If you store processed materials to the maximum capacity as outlined in the guidance, it is likely that a deep seated fire could occur. You must install a system that detects fire quickly and restricts fire spread. Due to the large quantity of waste wood in each pile, unchecked fire detection and initial fire development of the ignited pile is the main risk. Additionally, there is a risk of rapid fire spread to adjacent piles and subsequent involvement of all the waste wood. It is noted that alerting mechanisms appear to be based upon a visual assessment.

ACTION:

i. Please confirm what systems will be installed to detect fire quickly and to restrict a fire from spreading.
ii. Please provide a justification as to how a visual assessment would be sufficient when the site is not occupied for 12 hours per day.

6. Containing and mitigating fires

You must apply appropriate separation distances from the pile(s) to a site boundary or road, however, according to the storage plan provided, the wood piles at the south-western edge of the site appear to be stored adjacent to the perimeter and do not allow access around all sides.

ACTION:

i. Please ensure that the site plan (as requested above) indicates appropriate distances between the piles and the site boundary.

The plan must include a firefighting strategy.

ACTION:

ii. Please provide a revised plan that includes what the firefighting strategy is for the site that will be implemented in an emergency situation.

7. Managing waste piles

Plans provided refer to distances of pile separation and maximum heights. However, the plans are unclear as to how access within the site for fire appliances would be maintained. This is of particular concern in event of fire where fire-fighting water supplies would be an urgent priority. It is proposed to create a “lagoon / holding pond” for water extraction if needed, at the rear of the site. There is potential for delay of access to this water supply in event of fire, by fire appliances having to travel past the fire to access the water.

ACTION: Please provide a revised plan that addresses these concerns and demonstrates the following:

i. How adequate water supplies will be available at all times to fight a fire.
ii. How you will enable easy access for emergency vehicles around the whole site.

8. Piles and separation distances

The plan states:
Stockpile height will vary but should not exceed 5m high at any point. Where additional site infrastructure (for example power lines) required heights will be 4m.

However, the Environment Management System (EMS) states:
"The stockpiles will be no more than 7 metres high".

As well as these two plans being inconsistent with each other the stack sizes should comply with the requirements of Table 1 from the guidance document as follows:

- Processed wood chip: max length/width 10m; max stack height 3m.
- Unprocessed wood: max length/width 20m; max stack height 5m.

ACTION: In order to avoid any confusion, please provide a revised fire prevention plan and revised EMS that include consistent information on the stockpile sizes that also comply with Table 1 of the guidance.

9. Seasonality and pile management

In accordance with the guidance, you must prove that your pile management is viable. You must also prove the suitability of materials and the resilience of the supply chain and end user outlets. You have not included evidence of this in your plan.

ACTION: Please provide a technical assessment that demonstrates that your proposal will be viable in foreseeable market conditions. If the materials on your site are subject to seasonal variation in demand and/or supply you must demonstrate how you intend to manage these variations. All these issues and the contingencies you employ to minimise them must be in your management system and implemented before operations commence on site.

10. Managing fire water

The containment facilities and equipment you will need will depend on the size of your site, the amount of material you store and the firefighting strategy. The fire plan states that *"any fire water will be recirculated onto the material to prevent any fire water run off / tankered off site".*

ACTION: Please confirm what measures will be used to:

i. Recirculate fire water.
ii. Ensure the effective containment of firewater in order to prevent the risk of pollution.

11. Water supplies

You must have sufficient water supplies available on your site to manage a worst case scenario incident (e.g. all piles on site on fire).

ACTION:

i. Please confirm the water supply available on site for this worst case scenario and the calculations that you have used in order to establish if this is a sufficient amount.

The EMS states:
"Drainage from areas of the site used in connection with the storage of waste shall be collected in a sealed sump, controlled by the use of a drain bung, before being tanked off site. Drainage liquid collected in the sealed sump may also be used for dust suppression on the site, where suitable, and for use in the event of a fire incident."

Drainage liquid may contain contaminants such as fuel from spillages, which could further fuel a fire.

ACTION:

ii. Please confirm how this liquid would be suitable in the event of a fire incident and how you would determine if this liquid would be suitable.

12. Minimum standards

If you don't follow the minimum standards as set out in the guidance, you must be able to justify why. The measures you take instead must be equivalent or better. You must include detailed assessments to satisfy us that the:

- likelihood of fire;
- impact from emissions during or after a fire on local people, critical infrastructure and the environment;
- resources required by the Natural Resources Wales and other emergency responders during an incident;
- post incident clean-up and remediation costs;

are equivalent or less than would be incurred if the site followed the minimum standards in the regulatory guidance.

13. Impact of a fire on the immediate and surrounding area.

The impact of a fire would have an enormous adverse effect on the local population, its infra-structure, and economy. The potential impacts include the following:

- The proposed site is in close proximity to a number of local arterial roads (including the A4241), nationally significant roads (including the M4 and A48), and the main Swansea to London railway line.
- The predominant wind direction is south to south westerly. During the development and extinguishment of the fire, a huge smoke plume would potentially extend over the area for a number of miles.
- The proposed site is adjacent to the Baglan Bay Power Station. A number of 440kV power lines run in close proximity to the site. There is the significant hazard of high-voltage electrical conductivity of a smoke plume (and fire-fighting water spray).
- The overhead cables are of concern. Not only because they may affect fire-fighting capabilities but the danger of sparking from them would make it more difficult for firefighters to fight the fire where power lines are.
- Access to the Power Station would be restricted / prohibited in event of fire.

- Disruption locally could require the evacuation and temporary re-location of the immediate residential and business populations.
- The M4 and A48 corridors would be significantly affected, with a resultant impact on the regional and national traffic system.
- The Swansea to London rail network may have to be suspended / redirected, with resultant local and national economic impact on the wider community.
- Soot and other by-products of a fire have potential to contaminate water courses, particularly the River Afan, which is tidal adjacent to the site. This could have a knock on effect on local wildlife and marine ecosystems. The resultant water run-off from the large quantity of fire-fighting water required could further add to this potential for environmental pollution.

ACTION: Please provide a revised fire prevention and mitigation plan that specifies all combustion products and emissions (to air, land and water) from the fire and the emergency response (including the impact on people, critical infrastructure and the environment) and how they will be considered and minimised (*including those listed above*).

14. Environment Management System (EMS)

Your EMS includes waste acceptance procedures, but it does not include measures for waste that your site does not have the capacity to treat or store.

ACTION: Please provide a revised EMS that includes alternative waste management options available should your site reach its safe storage capacity.