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**ABERMULE (WITH) LLANDYSSIL COMMUNITY COUNCIL**  
**CYNGOR CYMUNED ABERMIWL GYDA LLANDYSSIL**

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Eich cyf / Your  
Ref:

GJR/023/2022

Ein cyf / Our Ref:

Tuesday, 22<sup>nd</sup> November 2022

Dyddiad / Date:

Dear Huw,

PAN 018305 CONSULTATION RESPONSE.

Abermule with Llandyssil Community Council strongly object to this application, particularly the inclusion of residual and AHP wastes in the application. There are two major areas of concern, misleading and unacceptable odour impacts on nearby receptors, and potentially toxic smoke and ash impacting the immediately adjacent business units and the village, on prevailing winds in the event of a fire at the facility. In our response to PAN 013001 we highlighted many aspects of the Odour Impact Assessment we felt were inappropriate or misleading, and the new Odour Impact Assessment seems to us to be even worse. It is almost as if the model used and the data fed into it has been adapted to get the required outcome.

The consultation response from Environmental Public Health Service Wales recommends the operator should follow and adhere to the WISH 28: 'Reducing Fire Risk at Waste Management Sites' Guidance. We entirely agree and are astonished that PCC feel it is acceptable to put the health of business unit occupiers, the residents of Abermule and the surrounding area at risk. The requirements for fire suppression in England are significantly higher than those in Wales, but this is not a license for PCC to jeopardise the local environment and the health of people working and living in Abermule by refusing to install even the most rudimentary fire suppression measures into this supposedly 'state-of-the-art' waste management site.

- 1) Odour Impact Assessment.  
We believe there are some fundamental errors in the data being used in the computer modelling:
  - a) The units of odour levels used are for a 98th percentile which means the limit cannot be exceeded for more than 2% of the time (175 hours in one year). The wind rose data submitted indicates there is a substantial South Westerly wind for between 9%

and 13% of the time over the 5 year meteorological data provided, with an average of 11%. If a 'worst case scenario' approach has been adopted (as is asserted throughout the OIA), the wind levels used in the modelling should be from a SW direction only, as 11% is much greater than the 2% time allowed. The results indicated for the different Meteorological Data is almost concentric and so we do not accept a 'worst case scenario' has been used in the modelling.

- b) Some of the odour levels used have been weighted downwards to allow for certain bay area's not being filled to full capacity. As a specific odour emission rate (i.e. OuE/m<sup>2</sup>/s) is the primary odour modelling parameter employed, then odour emission rates are predominantly related to the surface area of the waste stockpile. Consequently, we assert the odour emission rates should not be reduced, as emission rates are related to the area of the stockpile(s) and are largely independent of the overall volume of the stockpile.
- c) The Assessment indicates that the building is to be held in negative pressure which will limit the amount of odour released. But this negative pressure is achieved by extracting odorous air out of the building by the 5 large extractor fans located in the north-eastern wall of the building, directly towards the Business Park and the village. This cannot possibly reduce the levels of odour released from the building as is implied by the assessment. The predominant effect of these fans will be to discharge high levels of undesirable odour directly towards nearby receptors!
- d) Whilst the previous assessment provided details on airflow exiting the building, this assessment appears to contain very little data on airflow from the building, other than claiming an odour emission rate of only 139 OuE/s per fan, which is very questionable. Also, no assessment appears to have been made of the increased odour concentration levels which will exist when the fans are first switched on in the morning after overnight odour build up, or especially following weekend-long storage of waste materials within the facility.
- e) We seriously question the levels of odour used as inputs to the model. It states in the assessment that under 'Normal Operating Conditions' waste will not be present for more than 4 days, but there are no guarantees of this. The current collection cycle for kerbside residual waste in Powys is every 3 weeks, but there is a ratified proposal within PCC's budget for 2023/2024 to increase this to 4-weekly collections; the assessment fails to mention these important facts. It is also widely accepted that there is a direct linkage between increased odour generation and storage time for organic containing wastes. What is the point in making a big thing about the waste only being 4 days old when it will already be 3 – 4 weeks old on arrival?
- f) In the previous application PCC cited a document (1) from which it sourced representative odour levels for waste. For this application, they have provided figures measured from representative sites, trying to impress us by indicating that these measurements have been made in accordance with BS EN13725:2022. We are not impressed. In reading an overview of this standard, it is indicated that it should not be used where emission rates are variable, or in the determination of odour emission rates from volume sources, such as fugitive emissions from buildings. The 2022 version of the standard was published on 8/3/22, but somehow PCC have managed to adhere to it in January 2022? However, it is not the method of measurement that

is important, it is what was measured, when it was measured, and by whom, that is important. The assessment uses representative data measured in January and April when the average temperatures in Wales for these months are 4°C and 8°C respectively, whereas the average temperature in July can be as high as 21°C. There is very little information in the assessment of the conditions under which the measurements were made, temperature, amount of waste etc. etc. Neither does it indicate who made the measurements, and what were the credentials of the people making the measurements? To meet the 98th Percentile criteria, we strongly suggest measurements must be made of municipal waste collected at 3 (or 4) week intervals in July when average temperatures are at their highest. We would go as far as to say that these measurements should be made over a three month period (June – August) as prolonged hot periods are becoming far more prevalent with the onset of global warming.

- g) The output of the dispersion model is expressed in concentration levels averaged over a 1 hour period. The document in footnote (1) below clearly indicates that these are not suitable units when considering odour concentration levels as the peaks and troughs are averaged out. The cited document indicates that units averaged over a 3 minute period are far more representative for assessing human perception and annoyance levels and that concentration levels can be almost twice that of the units averaged over 1 hour. In another paper we have read (2) it indicates that it is well known, however, that for dispersion modelling of odours, the Gaussian model is inappropriate because it gives only hourly averaged concentrations, whilst the human response time for the detection of odour is typically of the order of 1 s.

The screening distance for SSSI's is 2km. How can a high level source of odour being blown directly towards a business park and village with a following wind possibly have levels down to the required acceptability threshold within a mere 28m (the exact distance to the NE boundary) as suggested by their model outputs (Section 7)? The results in the document in footnote (1) below indicate that levels do not reduce down to acceptable threshold levels until after 750m when using the more representative 3 minute average unit. There is either something seriously wrong with the way in which the model has been used, or the data being fed into it. We believe it is an essential safeguard that this Odour Impact Assessment MUST be subjected to a comprehensive independent 'peer review' by a suitably accredited external agency.

There is no discussion in the assessment of how the model is going to be validated, nor any attempt to quantify any uncertainties of measurement in the overall modelling, or any measures adopted in order to minimise these. In papers we have read it is clear modelling of odour dispersion is very difficult and results should always be validated.

In the Pre-application consultation report submitted for planning approval, PCC responded with the following regarding odour concerns:

In respect of odour, it is not expected that the site will give rise to any significant levels of odour as food waste will be transported to site in sealed containers, and then transferred on-site to sealed skips which are then taken off-site once full. There are no opportunities for any significant levels of odour to escape from the sealed skips (section 5.2).

In this Odour impact assessment there is only mention of sealed units for AHP waste and for food waste (but only over weekends), which is contrary to the information provided in order to get planning consent. For the food waste handling which does have planning approval, we insist that conditions are attached to the permit which require PCC to store food waste in sealed skips as was submitted when obtaining planning approval.

- (1) Comparison of dispersion models for assessing odour from municipal solid wastes, Waste Management Resources (2000) 18: 420 – 428, Hobbs, Stephen E., Longhurst, Philip., Sarkar, Ujjaini., and Sneath, Robert. W.
- (2) J. Nicolas, F. Craffe, A.C. Romain Waste Management (2006), vol. 26, iss. 11, pp. 1259-1269 - Estimation of odour emission rate from landfill areas using the sniffing team method.

## 2) Fire Risk

In a similar vein we are very disappointed at PCC approach to fire suppression, most of the Fire Prevention & mitigation plan (FP&MP) concentrates on fire prevention with very little on fire suppression.

- a) In the FP&MP it is stated that the building has a UKAS accredited fire detection and alarm system with flame detectors along the two short sides of the building which will cover all waste storage areas. There are no heat or smoke detectors in the main storage areas, only in the office and welfare area at one end of the building. If any of these detectors is triggered, a fire alarm system will sound, but there are no automatic fire suppression systems installed, the only fire suppression devices are handheld!
- b) On 28th July 2020 SLR Consulting and NRW agreed in a meeting NOT to install any form of automatic fire suppression at this facility. The justification cited acknowledged limitations of glass bulb-type sprinkler systems in large, high-roof buildings. However, the WISH 28 guidance: 'Reducing fire risks at waste handling sites' advocates many alternative forms of automatic fire suppression, the majority of which would significantly reduce (or eliminate) the risk of a fire at this facility developing into a major inferno.
- c) PCC's approach is entirely out of line with the WISH 28 guidance which advocates an Environmental Permit applicant should seek professional guidance (including a positive encouragement to consult with their insurers) and be aspiring to attain a 'high bar' in reducing fire risks, rather than adopting a high-risk, 'the minimum it can get away with' approach. A central philosophy that runs through the WISH 28 document is that prevention and minimising the risk of serious fires in the first place is far better than dealing with the inevitable consequences should a major fire occur.
- d) It is considered highly pertinent that the Environment Agency's (EA) guidance on Fire Prevention and risk mitigation stipulates: "If you store waste in a building, you MUST install a fire suppression system." The EA guidance further requires that: the fire suppression system must enable a fire to be EXTINGUISHED within 4 hours.
- e) Penstock valves are incorporated within the site's drainage systems in order to prevent contaminated firewater 'run-off' from entering the underground soak-away system and the site's foul water drainage network. However, site drainage plans submitted as part of the Permit application show that rainwater 'run-off' from the bulking shed roof is connected directly into the underground soak-away drainage system (not controlled by any penstock valves), and consequently water drainage

from the roof cannot be isolated from the underground soak-away system. Thus in the event of a major fire contaminated firewater run-off from the roof cannot be prevented from entering the soak-away system and hence entering nearby water courses!

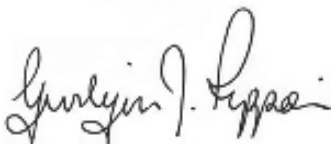
- f) The rationale which underpins PCC's entire consideration of the risk of a serious fire at this facility would appear to be to provide the bare minimum it can get away with to just meet regulatory requirements, and to simply leave it to the Fire and Rescue Services to absorb all responsibility for dealing with a major fire, which given the industry's track record on fires, many observers regard as almost inevitable, sooner or later!

Thus we have a large sealed building unattended for approximately 120 hours per week, in which are highly flammable materials, possibly containing combustion devices, with inadequate detection systems and no automatic fire suppression system. Over the past decade there have been more than 300 fires / annum at such waste facilities in the UK.

The above points raise serious concerns about risk of odour pollution and the risk of fire in the facility discharging toxic smoke across the village, the A483 major trunk road, and Cambrian Rail either side of the Bulk Recycling Facility, as has happened in the Midlands and other sites. Abermule is a large village with a number of residential estates, a school, a caravan park, and a public house with an outside beer garden, with the Rivers Severn and Mule in close proximity. All could be adversely affected by the horrifying prospect of several hundred villagers trapped by surrounding dense smoke being brought down on them by the prevailing winds, and such risks are totally unacceptable. Concerns are also raised about the adequacy of available fire appliances and distances to travel to the site. None of the local towns have permanently manned fire stations and so attendance to such a major fire incident would inevitably be too slow to prevent severe health risks to village residents and employees working on the business site. The number of ambulances located locally is also a major concern; the scale of such a toxic fire would cause severe health issues before adequate cover could be provided to tend to people suffering respiratory problems.

The impact of contaminated odorous air being blown towards the village may not be dangerous but would bring an unpleasantness in the summer months that would be unbearable. We feel that PCC have completely underestimated the impact of odour from municipal waste that is 3 – 4 weeks old.

Yours sincerely



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