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Eich cyf / Your
Ref:

Ein cyf / Our Ref:

Dyddiad / Date:

Thursday 29th June 2023

Dear, Huw

RESPONSE TO PUBLIC CONSULTATION

Response to public consultation on NRW 'Minded To' Draft Decision for Environmental Permit application (PAN—018305) for the North Powys Bulking Facility, Abermule, Powys

Below is Abermule with Llandyssil Community Council's response to the draft decision to issue a permit to PCC to operate a Bulk recycling facility, including the handling of residual waste, at their Abermule facility. You will find the response quite long, we do not apologise for this as we have very serious concerns about the application and the decision to issue a permit, particularly regarding the handling of residual waste, for which the building was never intended. It is our belief that the Abermule community and personnel working at the adjacent business park are at considerable risk of being affected by odour and the serious consequences of noxious smoke from an uncontrolled fire within the facility.

(1) FIRE SUPPRESSION

1.1 Major fires are continuing to occur at waste-handling sites with almost monotonous regularity, including many such facilities like the Abermule waste transfer station. This is in spite of extensive guidance produced by the Waste Industry Safety and Health Forum seeking to reverse this trend — WISH 28: 'Reducing Fire Risk At Waste Management Sites', Issue 3 March 2020.

The harsh statistics are that for over a decade there has been on average more than 300 fires occurring every year at waste-handling sites!

1.2 Against this backdrop it is very surprising and highly concerning that the applicant seems resolutely determined to eschew incorporating any form of automatic fire suppression at the Abermule facility. It is even more disappointing that the environmental regulator also appears quite content to endorse such a risk-inviting omission. Provision of

even a most rudimentary form of automatic fire suppression would significantly reduce (or possibly eliminate altogether) the risk of a small fire developing into a major conflagration (along with the inevitable environmental and financial consequences which would ensue!), before a part-time, rural Fire and Rescue service might be able to muster sufficient fire-fighting appliances from afield and assemble sufficient assets on scene to deal with a major fire.

1.3 The decision to forego providing any form of automatic fire suppression at this facility (which remains a major concern to the local community!) traces back to a pre-application meeting on 28 July 2020, when a functional limitation of just one type of automatic fire suppression (frangible, glass bulb-type sprinklers employed in high roof buildings) has been erroneously seized upon to justify a decision not to provide any form of automatic fire suppression at this facility. The WISH 28 guidance discusses and advocates many other types of fire suppression systems, virtually any of which would almost guarantee significantly reduced risk of a major fire occurring at this facility!

1.4 A requirement within the Environment Agency (EA) (in England) guidance on fire safety measures states:

“If you store waste in a building, you must install a fire suppression system” and further that, “Your system must enable a fire to be extinguished within 4 hours.”

It is very disappointing to note that the current NRW guidance applicable in Wales is far less stringent than its EA counterpart — unlike many of NRW’s regulatory guidance documents which either link directly to the EA version, or are re-branded, verbatim versions of the EA document.

The current NRW Fire Prevention and Mitigation Plan guidance (Guidance Note 16, Version 2.0, August 2017) is now 4 years older than the current EA guidance, and its noted ‘Review Date’ of August 2019 does not appear to have been actioned! It is difficult to comprehend why the guidance applicable to Wales is much less exacting and lags that which applies in England, as surely the risk (and occurrence!) of fires at waste-handling facilities in Wales cannot be significantly lower than it is in England?

1.5 The applicant’s philosophy (seemingly condoned by the regulator, too) appears to be a presumption (or mere hope!) that early detection, half a dozen Hochiki flame detectors connected via an alarm system to an external alarm receiving agency, plus a handful of hand-portable fire extinguishers will be sufficient to prevent any significant fire from occurring at the facility! The track record of serious fires occurring at waste-handling facilities would suggest otherwise!

As stated in the Fire Prevention and Mitigation Plan (FPMP), the strategy for reducing the risk of a major fire occurring at the facility relies predominantly upon early detection. However, most fires at waste-handling sites tend to occur outside operational hours, overnight and at weekends, when staff are not present on the site, and when preventative equipment such as hand-portable fire extinguishers, hose reels etc. would be completely irrelevant!

Thus if, or most likely when, a significant fire occurs during non-operational hours at this facility, total reliance is placed on the effectiveness and promptness of the external alarm receiving agency response, and the timeliness with which sufficient fire-fighting appliances and personnel can be deployed to the site! At the risk of stating the obvious, a (suitable) automatic fire suppression system might well obviate the need for a large-scale response

to a fire, and in any event would almost certainly reduce the severity of any fire and buy valuable time prior to the arrival of the Fire and Rescue Services.

That the applicant (and the regulator) appear quite content to sanction a failure to provide any form of automatic fire suppression at this facility will be viewed by many as a failure to carry out due diligence in minimising the risk of a serious fire occurring, and should such an eventuality occur this community would seek to hold both the operator and the regulator to account!

(2) FIREWATER CONTAINMENT

In the event of a major fire, contaminated firewater draining from the bulking facilities roof is not prevented from entering the underground soak-away system and subsequent transmission into local ground water, watercourses and the rivers Mule and Severn beyond.

As depicted on the submitted Site Drainage Plan (Drawing 003) roof drainage downpipes connect directly into the underground soak-away system. Thus, in the event of a major fire contaminated firewater draining from the roof cannot be isolated from entering the soak-aways by means such as penstock valves, which are provided in the surface water drainage system in the collection vehicles parking area!

(3) ODOUR

3.1 It is frequently asserted throughout the odour-related documents and responses to the Schedule 5 Notice that a conservative, 'worst case scenario' approach has been adopted throughout the numerous assumptions and derivations made during assessment of predicted odour emissions and the resultant impact on nearby receptors. This is patently NOT the case!

3.2 For example:

In Section 4.2 of V1.3 of the OIA (giving information on the odour emissions study carried out on residual and food waste at PCC's Rhayader bulking facility in April 2022), the document states:

"Therefore the monitoring data gathered in April, during a period of mild temperatures, represents a mid-point between winter and summer conditions, representing 'average' potential odour emissions from the waste."

Under no circumstances can an 'average' be considered to be 'worst case'! This alone is sufficient to question the justification for repeated assertions that a 'worst case scenario' has been adopted throughout the odour assessment, and as has been stated by acknowledged expert peer review, seriously questions the robustness and reliability of the odour assessment that has been carried out.

Decomposition of organic matter and the resultant odour emissions is widely accepted to be significantly greater in hotter temperatures during summer months of the year. Therefore, by using lower (April) 'average' emission values, odour emissions (and consequently the likely impact on nearby receptors) is significantly underestimated for a substantial part of the year!

3.3 Similarly:

3.3.1 Odour emission rates used in the AERMOD™ computer modelling (derived from the Rhayader odour monitoring study for residual and food wastes) have been weighted downwards by a 'Variable Emission Factor' (Appendix C of the OIA), using emission rates averaged between operational and non-operational periods ("diurnal variable emission profile"), when the ventilation/extraction fans will operate at reduced (unspecified!) airflow

rates overnight. Thus the 'worst case scenario' (which will occur during operational hours) has again NOT been employed in the source term used in the computer modelling — merely an "average" of the operational and non-operational periods!!

Table C1 in Appendix C is entitled "Maximum Odour Emission Rate Calculation", whereas the values are absolutely not maximum values... at best, they are doubly downwardly weighted average values.

3.3.2 The weighted emission rates derived from the odour monitoring study have also been weighted downwards by assumptions made regarding proposed site operations and anticipated waste stream throughputs, such that reduced bay occupancy percentages have been applied for the residual, food and AHP waste bays. While the anticipated waste stream throughputs may be achieved at times in practice, this is (again!) using bay occupancy percentages lower than the permitted quantities, which (again!) significantly undermines the assertion that a 'worst case scenario' has been considered.

3.3.3 A large difference is noted in odour concentrations between two of the measurements for 'recently freshly tipped' residual waste recorded during the odour monitoring study (with no apparent explanation). This is particularly perplexing with one of the measurements being notably lower than its counterparts, and another result being significantly higher compared to its cohort measurements, such that the highest value is almost seven times that of the lowest measurement! This large variation is not explained.

3.4 Thus, in collectively considering the many assumptions, calculations and derivations made in the odour assessment, along with the frequent assertions that a 'worst case scenario' has been adopted throughout the assessment, it is difficult to conclude anything other than the precise opposite! (see supporting points in 3.6 below)

Given all the various averages and weightings appearing within the OIA, it is difficult for the average reader to determine precisely which emission rates and precisely what reductions and weightings have been applied to arrive at the crucial odour emissions 'starting point' used in the computer modelling!

3.5 It is noted that an Improvement Programme Requirement (IPC1) condition has been included in the draft Permit. This condition requires the operator to carry out monitoring of on-site odour sources during routine steady operations at the facility in line with BS EN13725:2022 within 12 months of Permit issue, to establish whether the odour values used in the OIA modelling accurately reflect actual odour emissions occurring during 'real world' operations at the facility. This monitoring must also confirm that the odour source measurements employed in the odour assessment are representative of odour emissions occurring during warmer months of the year.

However, given the many uncertainties and the independent expert's concerns that remain surrounding the overall odour assessment, and that it could be up to a year before any meaningful confirmation is obtained whether the computer-predicted odour impacts are fully representative of actual experience, or not, this will entail a significant delay before any underestimation of actual odour emissions could be assessed, or mitigated.

There have been several (documented!) commitments made by the applicant to the Abermule community that 'it has no intention to handle residual 'black bag' waste at the Abermule facility for the foreseeable future', and that any expansion of waste streams

beyond those listed in the granted planning consent “would have to go back before planning”.

If these commitments are to be honoured, as they should be ... then as the improvement condition is currently worded, any odour monitoring carried out at the site to comply with the Permit Improvement Programme Requirement will not be assessing operational odour emissions from significantly odorous materials such as residual or AHP wastes.

The Permit Improvement Programme condition must therefore be revised to cover any situation where the applicant handles or intends to handle any additional waste streams (such as residual or AHP waste) at this facility beyond those approved in the granted planning consent, either within the 12 month period currently specified in the IPC1 condition, or subsequently. Therefore, residual and AHP wastes should not be included in the list of permitted wastes at Permit issue! Instead, these can be added as a Variation to the permit only as and when the applicant intends to handle these types of waste at the facility. To do otherwise will simply risk ‘shutting the stable door after the horse has bolted’! We would regard any failure to encompass this reasonable request by the regulator as abrogation of its responsibilities to safeguard and protect the local environment and community from harmful emissions and would seek to hold the regulator and applicant to account on this matter.

3.6 Significant concerns are also raised in an independent expert peer review of the odour assessment (commissioned by the local community council), which strongly suggests that potential odour impacts may be significantly underestimated. For example:

- Low level discharge of extracted air seems inconsistent with BAT (Best Available Techniques)
- Inadequate information on building extraction/ventilation and its ability to control fugitive emissions
- The modelling approach is likely to underestimate odour concentrations at nearby receptors, particularly the Abermule Business Park units
- The odour emission rates used in the modelling are very low, with inadequate details on the measurement and derivation.

These concerns undermine confidence in the overall assessment and the potential odour impacts should be more robustly assessed and minimised before any permit is issued.

It is very disappointing to note that the regulator appears to have paid little heed to these significant concerns raised by an acknowledged odour industry expert, in particular the view that the odour emission rates used in the modelling are very low and that the potential odour impacts may have been significantly underestimated. The Schedule 5 Notice request and responses do not address these concerns!

3.7 The OIA states that an odour monitoring study on food and residual wastes was carried out at the Rhayader facility in April 2022, “undertaken using methods outlined in BS EN13725:2022.” It is noted on the European Standards website (en-standard.eu) that this version of the standard was not released until 18 May 2022! So it is puzzling how the odour monitoring could have been carried out in complete accordance with an international standard not released until after the measurements were actually carried out?

3.8 While the latest version of the Odour Impact Assessment (OIA V1.3 Feb 2023, issued in response to a Schedule 5 Notice) has been extensively re-arranged with some new text

and a few tables added, it provides little significantly new information over its predecessor and largely repeats a vast majority of the information previously provided!

Simply repeating large expanses of previously submitted material, with little new information, or any fully detailed explanation of precisely how the overall computer modelling has been carried out does not make the current odour assessment any more valid, nor address many of the outstanding concerns raised, including those by an independent expert review, which questions the robustness and reliability of the odour assessment.

3.9 It states in the Draft Decision document that, "All of the emissions from the activity are fugitive." Fugitive emissions are defined as "emissions to air, water or land from the permitted activities which are not controlled by an emission limit."

Given the numerous concerns which remain over the robustness and reliability of the odour assessment, and that the accumulation and storage of all odorous waste streams (apart from green/garden waste) takes place within the containment of the 'bulking shed' building. It is difficult to accept how highly desirable 'containment'; the building being maintained at a negative pressure; doors to be kept closed at all times except to facilitate the entry and egress of waste and recycling collection vehicles; and only one door to be open at any one time etc. is not completely negated by the provision of the 5 large extractor fans in the rear elevation of the building, whose sole purpose can only be to extract malodorous, 'fugitive' emissions from the building, whereupon it is directed straight towards the immediately adjacent business units!

This concern is only exacerbated by the use of significantly lower odour emissions values in the present Permit application (obtained during the odour monitoring studies at the Rhayader and Crymlyn Burrows WTS facilities) compared to the source odour emissions values employed in the previous permit application for this facility.

This gives rise to a justifiable distrust that the odour assessment in the current permit application appears to have been very carefully conducted in order to yield acceptable, 'within limits' odour impacts on nearby receptors (i.e. the business units immediately adjacent to the facility) which were not considered in the previous permit application!

(4) FOOD WASTE

4.1 The OIA states that during weekday operations food waste will be deposited into the food waste bay, and under "normal" operations the retention time prior to bulk export off site would not be expected to exceed 24 hours.

For food waste storage over the weekend period, food waste deliveries received from 11am on Friday morning onwards would be deposited directly into food waste skips which would subsequently be sealed prior to storage over the weekend. Under "normal" site operations, no food waste deliveries to the site would occur during the weekend and the retention time over a weekend would not exceed 72 hours.

It is widely accepted that waste materials containing a significant proportion of organic content will have significantly higher odour potential than wastes with little or no organic content. Associated odour potential has been classed as follows for the following (more odorous) waste: Residual waste (Medium-High); Food waste (High); and Absorbent Hygiene Products AHPs (Very High). It is also widely accepted that odour emissions

because of decomposition of organic material increases significantly at higher ambient temperatures.

It is surprising to note that the associated odour potential for residual, food waste and AHPs listed in Appendix D of the OIA have been downgraded compared to the odour potential listed for these waste types in the previous permit application for this facility!

It is also disappointing to note that the OIA states that the odour emission rates obtained during the monitoring study (during mild conditions in April) have been applied in the dispersion modelling for 365 days of the year “without any consideration of a reduction factor (i.e. in winter months when temperatures and therefore odour potential is anticipated to be lower)”. Notwithstanding this, it is considered that an ‘increase factor’ should be applied to odour emission rates for summer months, when higher temperatures, and consequently significantly higher odour emission rates will occur!

Yet again, the assertion that a ‘worst case scenario’ has been considered throughout the OIA is seriously contradicted!

Given the above, significant odour emissions will be released from substantial quantities of food waste ploughed into an open bay and stored for up to 24 hours (potentially with some of the biodegradable food waste bags open or split, exposing their putrescible contents to the air), especially during the warmer months of the year!

If food waste can be stored in sealable skips over the weekend period (presumably to mitigate the release of odour?), then why can this same method of handling not also be the norm during weekday operations? This would also eliminate ‘double handling’, which can only exacerbate odour release caused by additional agitation and tipping of the waste material!

During a community council familiarisation visit to the Rhayader site, it was particularly noted that during routine weekday operations, food waste stillages were discharged directly into sealed skips.

Unless this practice was especially laid on purely for the benefit and reassurance of the visitors, then if this is normal operating procedure at the applicant’s Rhayader facility, then why can’t it be .. why should it not be ... the same at the brand new, supposedly state-of-the-art facility at Abermule?

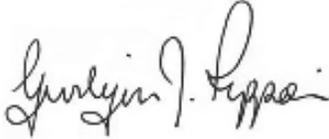
There is an opportunity, here, for the applicant (and the regulator) to do something that has already been observed as routine day-to-day practice at its Rhayader facility which would make a small but significant contribution towards minimising odour emissions impacting nearby receptors from this facility. If the applicant (and regulator) are not prepared to require this small change to operating procedures, which would cost nothing, the community of Abermule will be asking why not!

(5) CONCLUSION

You will have noted from the above that we have very serious concerns about the applicant’s attitude to risk and their determination to manipulate data fed into the odour dispersion model to achieve the required output. You will also note that we are very concerned that although PCC does not have planning permission to handle residual waste, they continue to include it in their applications to you. It is obvious to us that should NRW issue a permit for the handling of residual waste, PCC will be submitting a planning application to handle such waste, citing your permit as evidence that everything will be alright, that the facility will be scrutinised to the highest possible standards, and planning

should be approved. They should not be submitting an application to you for something they do not have permission to do. In effect, NRW are being used by PCC as a means to achieve their desired goal of handling residual waste adjacent to a large conurbation. We trust that you will treat our concerns more favourably than you did with our previous submission, and that you will take on board the seriousness of the items highlighted. As mentioned a couple of times already, if you choose not to take our concerns on board we shall not hesitate to hold you publicly accountable should an incident arise that we have raised concerns about.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Gwilym J. Rippon'. The signature is written in a cursive style with a large initial 'G'.

Gwilym J. Rippon
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