

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

Notice requiring further information

To: Medwyn Williams
Gwynedd Council
Council Offices
Caernarfon
Gwynedd
LL55 1SH

Application number: EPR/GP3330BY/V005

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, dated 01st December 2015. The information requested should be sent to the following address by 27th November 2015.

Information should be sent to:

Wales Permitting Centre
Natural Resources Wales
Cambria House
29 Newport Road
Cardiff
CF24 0TP

Name	Date
Kevin Ashcroft	26 th October 2015

Authorised on behalf of Natural Resources Wales

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Wales Permitting Centre (Cardiff), Natural Resources Wales, Cambria House, 29 Newport Road, Cardiff. CF24 0TP

Gwefan/Website www.cyfoethnaturiolcymru.gov.uk
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Croesewir gohebiaeth yn y Gymraeg a'r Saesneg
Correspondence welcomed in Welsh and English

Schedule

At the present time effects on groundwater quality due to landfilling at Area 3 are not discernible from those which historically occurred at Area 2 which operated as a 'dilute and disperse' landfill.

To accommodate the effects of the dilute and disperse Area 2 landfill it is proposed to increase the compliance limit at the downgradient monitoring boreholes as shown in Table 4.3 of the HRA. These revised compliance limits have been derived on the following basis:

Boreholes showing a downward trend in concentrations: compliance limit has been set as the peak concentration recorded at that boreholes and the control limit as 90% of the compliance limit

Boreholes showing stable concentrations: compliance limit has been set as the peak concentration recorded at that borehole plus 10% and the control limit as 90% of the compliance limit

Boreholes showing an upward trend in concentrations: compliance limit has been set as the peak concentration recorded at BH27 (maximum concentrations near the source) and the control limit as 90% of the compliance limit

We do not agree with the general approach to the setting of the limits and recommend that they are revised in the light of the following comments.

Chloride concentrations

1. We do not agree with the proposed compliance limits for BH19A, BH19B and BH19C. The limit for BH19B and BH19C has been set at the peak concentration recorded in up gradient BH27, at 550mg/l. The reports justifies this due to the rising trend being experienced in BH19B and 19C which have risen from <50mg/l in 2013 to around 250mg/l in 2015. The HRA attributed the increased concentration of chloride in these boreholes due to leaching from marine dredging's used as part of the engineered cap in Area 2. These produce a saline runoff during wet periods which collects in the surface water infiltration lagoon and has a consequential effect on groundwater quality. The water quality data in BH18A and BH18B shows a peak in chloride concentrations in 2011-2012 reducing from 2013 onwards. The HRA interprets this as being a 'slug' of saline water migrating westwards and which has now reached BH19A, BH19B and BH19C. Given these increases are not directly linked to the Area 2 landfilling activity, but are rather as a result of a separate pollution incident from site capping it is not appropriate to revise the compliance limits on this basis. We would expect further information to be provided to demonstrate how this incident is being monitored. **Please revise compliance limits accordingly. Is there an expectation that there will be further instances of saline run-off being generated on site which will enter**

the surface water lagoon? Please clarify what mitigation measures are proposed to prevent impacts on underlying groundwater?

2. The HRA proposes revised compliance limits of 485mg/l at BH20A and 443mg/l and BH20B. This is compared to the current values of 310mg/l (BH20A) and 424 mg/l (BH20B).

We do not agree to the concentration at BH20A being set at the maximum recorded level. The report states that the concentration is stable and most of the data is at less than 450mg/l, which a single data point at 485mg/l. At BH20B the values since 2011 have consistently been below 400mg/l so we would expect any revised compliance limit to reflect this. **Please provide revised compliance limits.**

3. A compliance limit of 350mg/l has been proposed for both BH21A and BH21B. This is on the basis of the peak concentration recorded at the boreholes. We do not agree to these values.

Since 2010 BH21A has shown a reducing trend in Chloride concentrations, with the exception of an isolated peak in late 2014. We suggest a figure of 300mg/l would be more appropriate for this borehole.

The value for BH21B should also be revised. We acknowledge a single peak in concentration shown on the graph as with BH21A but discounting this one-off concentrations have consistently been below 250mg/l and most recently below 150mg/l. **Please provide a revised compliance limit which better reflects the observed groundwater quality data from these boreholes.**

4. At BH30 and 31 there is a clear downward trend in concentrations for Chloride, however the compliance limit for Chloride has been set at the maximum observed concentration at both points (450mg/l for BH30 and 150mg/l for BH31). For BH30 current concentrations are just below 300mg/l having been reducing from a peak in 2011. At BH31 concentrations are just below 50mg/l having fallen from a peak in 2009.

Given that concentrations in the boreholes up gradient of Area 3 and downgradient of Area 2 also show a clear downward trend in Chloride concentrations this suggests the plume of contamination has passed.

We would therefore not expect to see further increasing trend in Chloride concentrations at Boreholes 30 and 31 which are attributed to the older dilute and disperse Area 2. On this basis the proposed compliance limits should be revised to more accurately reflect the current concentrations being observed in both boreholes. **Please provide revised compliance limits.**

Ammoniacal nitrogen

5. The compliance limit has been set for these at the peak concentration recorded. At BH30 a compliance limit of 240mg/l is proposed. Concentrations are reducing at this location from a peak in 2011. This reflects the decreasing trend also being observed between Areas 2 and 3, where concentrations in those boreholes are reducing from a peak in 2010 (from around 300mg/l to 150mg/l in 2015) representing the migration of the leachate plume from Area 2.

On this basis the compliance limit at BH30 should more accurately reflect this and not be set at the maximum observed concentration.

At BH31 the proposed compliance limit is set at 110mg/l. As with BH30 we do not agree that the maximum observed concentration is appropriate given the downward trends in concentration being noted elsewhere. The limit should more accurately reflect the current water quality data. **Please provide revised compliance limits for BH30 and BH31.**

Cadmium

6. Cadmium has consistently been detected below the compliance limit (5.5ug/l) at all monitoring points. As concentrations upgradient of Area 3 and downgradient of Area 2 are now consistently below 3ug/l we would advise a lower compliance limit at all the boreholes downgradient of Area 3 should be implemented. **Please provide revised compliance limits.**

Naphthalene

7. We do not agree with the proposal to use EQS as the compliance limit for Naphthalene. As a hazardous substance the minimum reporting value (MRV) would be a more appropriate value for this substance. **Please revise.**