

Ref 5.8E.4

DWI Notices

November 2017 and January 2018



THE WATER SUPPLY (WATER QUALITY) REGULATIONS 2016 (AS AMENDED)

NOTICE UNDER REGULATION 29(4)

DŴR CYMRU : PONTSTICILL WORKS

Version Number: 2

Pontsticill water treatment works, Central North Supply System & Reg. 29 report reference: DWR 1004

Improvement Programme Database Reference number – DWR 3253

THE SECRETARY OF STATE:

1. has on 8 November 2016 received a report from Dŵr Cymru (the “**Company**”) dated 12 May 2016 (the “**Report**”) which states that there is or has been a significant risk of supplying water from Pontsticill works that could constitute a potential danger to human health and could be unwholesome.
2. **GIVES NOTICE** to the Company under regulation 29(4) of the Water Supply (Water Quality) Regulations 2016 (as amended) that it must satisfy the following requirements:

For risks associated with:

- Taste and Odour

Requirements

Date until/by which requirements must be maintained/ satisfied (as appropriate)

(a) to maintain the following measures for the period specified in each case

- | | | |
|-----|--|-------------------|
| i. | maintain existing PAC dosing facilities | From 31 July 2014 |
| ii. | initiate blending with water from Nantylwch Court Farm, Sluvad, Cantref, Llwynon and Talybont WTWs on detection of taste and odour | Ongoing |

(b) to review, revise and/or make operational the following measures, by the date specified below:

- | | | |
|-------|---|-------------------|
| iii. | the effectiveness of the powdered activated carbon (PAC) in use at the works and establish a more appropriate grade to remove methyl Isoborneol from the treated water; | Complete |
| iv. | The operation of the Dissolved Air Flotation (DAF) plant in order to minimise the carryover of PAC onto filters | Complete |
| v. | the operation of the current sludge handling system to determine modifications necessary to prevent PAC fines entering the supernatant return to the works inlet | Complete |
| vi. | Review and implement alternative solutions to PAC for the removal of MIB and geosmin should the PAC dosing be ineffective | Complete |
| vii. | Assessment of changes/alterations to Pontsticill and Pentwyn reservoirs following installation of Resmix and LG Sound units which may impact and/or increase risk of taste and odour causing compounds | 30 June 2018 |
| viii. | Investigation of the catchment including work to profile Pentwyn and Pontsticill reservoirs to include study of dominant MIB / Geosmin producers (to genus level as minimum) and assessment of likely impact on treatment | 30 June 2018 |
| ix. | Installation of GAC into 3 of the first stage filters to determine further removal of geosmin and MIB | 30 September 2018 |
| x. | Profiling of limnology to gain an understanding of prevailing conditions that are giving rise to taste and odour causing compounds | 31 December 2018 |

(c) to audit whether the measures have been effective by the following means:

- | | | |
|------|---|---------|
| xi. | Undertake monitoring of existing measures | Ongoing |
| xii. | Review results and if contacts are received for taste and odour the company will :
- undertake enhanced monitoring
- consider acceleration of the remediation programme
- consider arrangement of alternative supplies and will take all appropriate steps to protect public health. | Ongoing |

xiii. Liaise with the relevant local authority and health authorities. Ongoing

(d) not to supply water for regulation 4(1) purposes from Pontsticill works [unless the conditions specified below are satisfied]

N/A

N/A

(e) to provide the following information in the time and manner specified below to enable monitoring of progress towards the mitigation of the risk of supplying water that would constitute a potential danger to human health:

- | | |
|--|---|
| <p>xiv. Provide a progress report annually by 31 January and against the following milestones:</p> <ul style="list-style-type: none"> • Completion of Steps (vii – viii) • Completion of Steps (ix) • Completion of Steps (x) | <p>31 July 2018
31 October 2018
31 January 2019</p> |
| <p>xv. Review the risk assessment for Pontsticill works and Central North Supply system as required by Regulation 28(4) and subsequently submit a revised regulation 29 report</p> | <p>31 March 2019</p> |
| <p>xvi. Submit a satisfactory completion report</p> | <p>31 January 2020</p> |

Failure by the Company to comply with this Notice may result in enforcement proceedings under section 18 of the Act.

Signed by authority of the Secretary of State,



Milo Purcell
Deputy Chief Inspector

30 January 2018

DWI ref DWR 3253



THE WATER SUPPLY (WATER QUALITY) REGULATIONS 2016

NOTICE UNDER REGULATION 29(4)

DŴR CYMRU: LLWYNON WORKS

Version Number: 2

Llwynon Works T67149, North Cardiff Supply System

Improvement Programme Database Reference number – DWR 3682

THE WELSH MINISTERS:

1. has received a report from Dŵr Cymru (the “**Company**”) dated 23 June 2016 (the “**Report**”) which states that there is or has been a significant risk of supplying water from Llwynon Works and North Cardiff supply zone that would constitute a potential danger to human health.
2. **GIVES NOTICE** to the Company under regulation 28(4) of the Water Supply (Water Quality) Regulations 2016 that it must satisfy the following requirements:

For risks associated with:

- Taste and Odour
- Microbiology
- Colour
- Turbidity

Requirements

(a) to maintain the following measures until revocation of this notice:

- i. Seasonal monitoring of MIB and Geosmin levels in the raw and final water at Llwynon WTW
- ii. PAC dosing as required to control taste and odour compounds in treated water
- iii. Operation of conjunctive use system to manage water production and minimise the levels of taste and odour causing compounds entering supply

(b) to review, revise and/or make operational the following measures, by the date specified below:

i.	Assessment of changes/alterations to catchment which may impact and increase risk of taste and odour causing compounds	Complete
ii.	Assessment of impact on taste and odour causing compounds from other works at Sluvad and Court Farm.	Complete
iii.	Investigation of clarification/coagulation process at Llwynon WTW to ensure optimisation of process	Complete
iv.	Undertake investigation and remedial actions to mitigate the risk from suspected ingress in the final water tank	30 June 2018
v.	Consideration of effective use of draw-offs to minimise taste and odour compounds	Complete
vi.	Investigation of the catchment including work to profile the reservoirs associated with Llwynon WTW, to include study of dominant MIB / Geosmin producers (to genus level as minimum) and assessment of likely impact on treatment	30 June 2018
vii.	Profiling of limnology to gain an understanding of prevailing conditions that are giving rise to taste and odour causing compounds.	30 June 2018
viii.	Upgrades to the control system at Llwynon WTW	30 June 2018
ix.	Installation of dedicated run to waste facility at Llwynon WTW	30 June 2018
x.	Refurbishment of the first stage Immedium filters at Llwynon WTW	31 Dec 2018

(c) to audit whether the measures have been effective by the following means:

- | | | |
|---|---|--|
| • | Enhanced monitoring of taste and odour producing compounds in raw and final water | To be submitted two months after notice is served and resubmitted as the strategy evolves. |
| • | Monitoring and recording of customer contact rates for taste and odour-related issues with associated action plans for any issues identified. | |
| • | Monitoring and sign-off of work delivered by third party contractors | |
| • | Monitoring of on-line data at Llwynon WTW to demonstrate effectiveness of completed work. | |

- Review results and for any recorded non-compliance:
 - a. Undertake enhanced monitoring for Microbiology, colour, turbidity, taste and odour
 - b. Consider acceleration of remedial work
 - c. Take appropriate action to protect public health
- Liaison with the relevant local authorities and health authorities as required.

(d)

N/A

(e) to provide the following information in the time and manner specified below to enable monitoring of progress towards the mitigation of the risk of supplying water that would constitute a potential danger to human health:

- | | | |
|------|--|--|
| i. | Provide a progress report annually by 31 January and against the following milestones: | |
| | <ul style="list-style-type: none"> • Completion of Steps b (i - v) • Completion of Steps b (vi - ix) • Completion of Step b (x) | Complete
31 Jul 2018
31 Jan 2019 |
| ii. | Review the risk assessment for Llwynon WTW as required by Regulation 27(3) and subsequently submit a revised regulation 28 report accompanied by a signed board level declaration. | 31 Mar 2019 |
| iii. | Submit a satisfactory completion report | 31 Jan 2020 |

Failure by the Company to comply with this Notice may result in enforcement proceedings under section 18 of the Act.

Signed by authority of the Secretary of State,



Milo Purcell

Deputy Chief Inspector

DWI ref: DWR3682

06 November 2017