

# Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

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**Hydro Aluminium Deeside Limited**

**Wrexham Aluminium Works  
Bridge Road  
Wrexham Industrial Estate  
Wrexham  
LL13 9PS**

Variation application number

**EPR/BK3638IF/V006**

Permit number

**EPR/BK3638IF**

# Wrexham Aluminium Works

## Permit number EPR/BK3638IF

### Introductory note

**This introductory note does not form a part of the notice.**

The following notice gives notice of the variation and consolidation of an environmental permit.

This variation incorporates the changes made by the operator to install a twin-chamber pre-heating furnace for aluminium ingot. This equipment will utilise waste heat in furnace off-gases, ensuring safe charging of dry material and reducing energy use in the melting and holding furnaces. Moisture trapped inside cracks and cavities in ingots of aluminium can cause a powerful explosion when charged into molten metal. The ingot preheater will use waste heat from the melting and holding furnace off-gases to heat ingots to a temperature of >150oC over a four-hour cycle. Pre-heated ingots would then be charged to the melting furnace as dry material and would enable reduced heat input from the furnace burners, in turn saving energy and direct CO<sub>2</sub> emissions from gas consumption. The preheater is of a twin chamber design to enable continuous treatment of prime ingot. The design incorporates separate auxiliary burners serving both chambers. These are gas-fired and rated at 800kW thermal input each. The burners can be used to raise temperatures during start-up and will enable effective temperature regulation during the pre-heat cycle. The burners are not used simultaneously. Combustion gases from burner operations will exhaust to atmosphere via the existing filtration plant and associated flues (release points A1 and A12). Emission Limit Values for these emissions points will remain the same. If the preheater is operated solely with the gas burner, the inlet of furnace gases and outlet to the abatement plant would be automatically sealed-off in order to maintain steady operation and avoid the risk of the existing fume abatement plant shutting down due to the temperature being exceeded.

The schedules specify the changes made to the permit. Schedule 1 of the notice specifies the conditions that have been varied and schedule 2 comprises a consolidated permit which reflects the changes being made.

The status log of a permit sets out the permitting history, including any changes to the permit reference number.

<b>Status log of the permit</b>		
<b>Description</b>	<b>Date</b>	<b>Comments</b>
Application BK3638 received	07/09/2001	
Response to Schedule 4 Notice 11/12/01 provided	14/01/2002	
Supplementary information provided	30/01/2002	Map and slight amendment to waste storage information
Supplementary information provided	25/02/2002	Further slight amendment to waste storage
Supplementary information provided	08/03/2002	Clarification regarding monitoring details
Agency-initiated variation EPR/BK3638IF/V002 determined - variation notice issued	14/07/2009	Agency-initiated permit review
Variation application EPR/BK3638IF/V003 received	19/03/2014	
Variation application EPR/BK3638IF/V003 determined - variation notice issued	20/06/2014	
NRW-initiated variation EPR/BK3638IF/V004 determined - variation notice issued	29/04/2015	NRW-initiated variation to correct table S4.1
NRW-initiated variation EPR/BK3638IF/V005 determined - variation notice and consolidated permit issued	20/07/2017	Varied and consolidated permit issued in modern IED condition format
Variation application EPR/BK3638IF/V006 received	Duly made 19/08/2020	Variation to install a twin-chamber pre-heating furnace with auxiliary burners (800kwth each).
NRW-initiated variation EPR/BK3638IF/V006 determined - variation notice and consolidated permit issued	21/10/2020	Varied permit issued.

End of introductory note

## Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2016

The Natural Resources Body for Wales (“Natural Resources Wales”) in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2016 varies and consolidates

Permit number  
**EPR/BK3638IF**

issued to:  
**Hydro Aluminium Deeside Limited** (“the operator”),

whose registered office is

**Bridge Road  
Wrexham Industrial Estate  
Wrexham  
LL13 9PS**

company registration number **01786117**

to operate a regulated facility at

**Bridge Road  
Wrexham Industrial Estate  
Wrexham  
LL13 9PS**

to the extent set out in the schedules.

The notice shall take effect from 21/10/2020

Name

Date

<b>Holly Noble</b>	<b>21/10/2020</b>
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Authorised on behalf of Natural Resources Wales

**Schedule 1**

All conditions have been varied by the consolidated permit as a result of a Natural Resources Wales initiated variation.

**Schedule 2 – consolidated permit**

Consolidated permit issued as a separate document.