



Notice of variation with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

NPower Cogen Ltd
Tioxide Grimsby CHP Plant
Moody Lane
Grimsby
N E Lincolnshire
DN31 2SW

Variation application number

EPR/BK5053IW/V006

Permit number

EPR/BK5053IW

Tioxide Grimsby CHP Plant

Permit number EPR/BK5053IW

Introductory note

This introductory note does not form a part of the notice

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

The requirements of the Industrial Emissions Directive (IED) 2010/75/EU are given force in England through the Environmental Permitting (England and Wales) Regulations 2010 (the EPR) (as amended).

This variation notice refers to the operation of large combustion plant (LCP), as defined by articles 28 and 29 of the Industrial Emissions Directive (IED). Environmental Permit EPR/BK5053IW has been varied by the Environment Agency to facilitate the implementation of the special provisions for LCP given in the IED, by the 1 January 2016 (Article 82(3)). The IED makes special provisions for LCP under Chapter III.

This variation notice sets condition 1.1.4 into Environmental Permit EPR/BK5053IW to ensure that the site can only operate in accordance with Chapter III of the Industrial Emissions Directive. The Operator, NPower Cogen Ltd, must demonstrate their compliance with Chapter III of the Industrial Emissions Directive, should they wish to operate the site and must have obtained written approval from the Environment Agency before operating.

The site operates a Combined Heat and Power (CHP) Plant to supply energy to the Huntsman Tioxide Grimsby site in the form of electrical power and steam as well as to supply any of the surplus electrical power to the National Grid. The CHP plant is located adjacent to Huntsman Tioxide's chemical plant on the Moody Lane industrial site at National Grid reference TA 2450 1130.

The CHP plant comprises principally a single gas turbine with an associated Heat Recovery Steam Generator (HRSG), three package steam boilers and associated equipment.

The Gas Turbine is a single (dual fan) Alstom Cyclone generator set with an electrical output of 12.9 MWe. The turbine will be fitted with Dry Low No_x (DLN) combustion technology enabling the control of combustion temperatures and hence production of thermal NO_x when firing on gas. When distillate fuel oil is burnt during interruption to the gas supply, a similar technique is used to reduce NO_x formation. The gas turbine will exhaust through a heat recovery steam generator.

The thermal input of the gas turbine at 100% maximum continuous rating and when fired by natural gas will be 38.41 MW (10°C ambient temperature).

The heat recovery steam generator (HRSG) comprises a gas-tight enclosure containing a system of heat exchanger tubes to generate steam using waste heat from the gas turbine exhaust and supplementary burners. Exhaust gas from the waste heat boiler discharges to atmosphere through a stack.

The HRSG does not incorporate supplementary firing on distillate fuel oil if the natural gas supply is interrupted for any reason and the gas turbine has switched to oil firing. Three package boilers provide the balance of steam requirements in this scenario. The three package boilers are of dual fuel design, capable of producing all the required steam for the Huntsman Tioxide process (maximum expected 93 tonne h⁻¹).

The thermal input of each package boiler when fired by natural gas at 100% maximum continuous rating is 26.6 MW.

The thermal input of the HRSG when in supplementary firing mode and a steam output of 80 tonne h⁻¹ is 46.93 MW (10°C ambient temperature). When firing in auxiliary firing mode the thermal input for a steam output of 80 tonne h⁻¹ is 69.41 MW (at 10°C).

The stacks provided to discharge the exhaust gases from the HRSG and package boilers are grouped together into a single structure 45m high.

The gas turbine and HRSG are supplied with a bypass stack 35m high. This is only to be used to discharge exhaust gases from the gas turbine when the HRSG is completely shut down.

This introductory note also confirms the updated LCP numbers in accordance with the most recent DEFRA LCP reference numbers. The LCP references are changed as follows:

- LCP 237 is changed to LCP 271

The schedules specify the changes made to the original permit.

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

Status log of the permit		
Description	Date	Comments
Application BK5053IW	Received 27/03/2001	
Response to request for information	N/A	N/A
Request to extend determination	N/A	N/A
Permit BK5053IW	Determined 20/07/2001	
Application for first variation	Received 21/11/2003	
First Variation BX0067IQ (standard)	Determined 29/04/2004	To allow changes to reflect commissioning outcomes. Consolidated Permit.
Second Variation PP3335ST (Agency initiated standard)	Determined 27/11/2004	This variation notice includes monitoring and reporting requirements for compliance with the revised Large Combustion Plant Directive [Directive 2001/80/EC] Consolidated Permit.
Third Variation EP3738SC (standard)	Received 31/01/2005 Determined 31/05/2005	To allow changes to reflect the new way of operating the plant at low steam demands.
Fourth Variation UP3335UV (standard)	Received 27/03/2007 (revised) Determined 11/01/2008	To allow changes to reflect the new way of operating the plant at low steam demands.
Variation determined EPR/BK5053IW/V006 (PAS Billing ref:BP3132AE)	18/12/2015	Agency initiated variation to include condition 1.1.4 requiring the operator to provide evidence that the facility will operate in accordance with Chapter III of the Industrial Emissions Directive. Varied permit issued.

End of introductory note.

Notice of variation

The Environmental Permitting (England and Wales) Regulations 2010

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2010 varies

Permit number

EPR/BK5053IW

Issued to

NPower Cogen Ltd (“the operator”)

whose registered office is

Windmill Hill Business Park

Whitehill Way

Swindon

Wiltshire

SN5 6PB

company registration number **02624987**

to operate a regulated facility at

Tioxide Grimsby CHP Plant

Moody Lane

Grimsby

N E Lincolnshire

DN31 2SW

to the extent set out in the schedules.

The notice shall take effect from 01/01/2016.

Name	Date
J Linton	18/12/2015

Authorised on behalf of the Environment Agency.

Schedule 1 – conditions to be deleted

None.

Schedule 2 – conditions to be amended

None.

Schedule 3 – conditions to be added

The following conditions are added following an Environment Agency initiated variation

- 1.1.4 No activities authorised by this permit shall take place unless the operator has submitted a report in writing to the Environment Agency for approval, demonstrating compliance with Chapter III of the Industrial Emissions Directive, and has obtained written approval from the Environment Agency.