



**ENVIRONMENT  
AGENCY**

## Variation Notice with introductory note

Pollution Prevention and Control Regulations 2000

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***Convatec Rhymney Gelling Fibre  
Plant***

***Convatec Limited  
Unit 1  
Heads of the Valleys Industrial  
Estate  
Rhymney  
Tredegar  
NP22 5RL***

Variation Notice number

***PP 3433 LP***

Permit number

***NP 3433 BC***

# Introductory note

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

The following Notice is issued under Regulation 17 of The Pollution Prevention and Control (England and Wales) Regulations 2000 (S.I.2000 No. 1973 (as amended) (the Regulations) to vary the conditions of a Permit issued under the Regulations to operate [part of] an installation.

The Notice comprises Schedule 1 containing conditions to be deleted, Schedule 2 conditions to be amended and Schedule 3 conditions to be added. The Notice is subject to the express conditions set out in Schedules 1 to 3.

The Permit, as amended by this Variation Notice, contains conditions which have to be complied with. It should be noted that aspects of the operation of the installation which are not regulated by those conditions are subject to the condition implied by Regulation 12(10) of the PPC Regulations, that the Operator shall use the best available techniques for preventing or, where that is not practicable, reducing emissions from the installation. Techniques include both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned.

## **Brief description of the changes introduced by this variation notice.**

This variation amends the following:

- Amendment of product description to generic "gelling fibre"
- Inclusion of additional air emission points and associated monitoring requirements
- Reduction of sewer ELVs to agree with Trade Effluent Consent

## **Description of installation**

The main features of the installation are as follows.

The gelling fibres are produced using a patented batch process. Cellulose tow/fabric is manually packed into a basket arrangement, which is placed in a lidded Stainless Steel Reactor Vessel, around which chemical reaction liquors are pumped at elevated temperature and pressure. The fibre process chemicals are used in a solution of Industrial Methylated Spirits (IMS). The air space within the reaction vessel is blanketed with Nitrogen gas, to minimise fire risk from the highly flammable alcohol. Potential sources of ignition such as sparks, electrical equipment, and smoking, are also carefully controlled for reasons of fire and/or explosion risk. The tow/fabric is first reacted with an Acetic Acid Salt (Sodium Monochloroacetic Acid) and Sodium Hydroxide, which are dissolved in IMS (this prevents gelling of the fibres/fabric as they both gel on contact with water. The tow/fabric is then pH neutralised with Acetic Acid before being washed thoroughly in IMS/citric acid solution. Finally the tow/fabric is treated with a surfactant type processing aid (Soft Finish).

After being blown through with Nitrogen (to expel excess IMS), the basket of tow/fabric is lifted out of the reaction vessel, and, depending on the process, taken to the appropriate drier.

The Tow Drier is heated with hot air, which drives off the liquid IMS, which is extracted to the VOC abatement plant. The closed-loop Fabric Drier is heated with circulating hot Nitrogen, which drives off the liquid IMS, which is then condensed in the condenser. The liquid (IMS) effluent from each stage of the process (including the fabric drier) is stored in a storage tank before going off-site for recovery.

Other PPC Permits relating to this installation		
None	Not applicable	Not applicable

Superseded Licenses/Consents/Authorisations relating to this installation		
Holder	Reference Number	Date of Issue
None	Not applicable	Not applicable

## Talking to us

If you contact the Agency about this Permit please quote the Permit Number.

The Operator should use the Emergency Hotline telephone number (0800 80 70 60) or any other number notified to it to give a notification under condition 5.1.1 of the Permit.

## Confidentiality

The Permit/Variation requires the Operator to provide information to the Agency. The Agency will place the information onto the public registers in accordance with the requirements of the PPC Regulations. If the Operator considers that any information provided is commercially confidential, it may apply to the Agency to have such information withheld from the register as provided in the PPC Regulations. To enable the Agency to determine whether the information is commercially confidential, the Operator should clearly identify the information in question and should specify clear and precise reasons.

## Variations to the permit

This Permit may be varied in the future. The Status Log within the Introductory Note to any such variation will include summary details of the Permit, variations issued up to that point in time and state whether a consolidated version of the Permit has been issued.

## Surrender of the permit

Before this Permit can be wholly or partially surrendered, an application to surrender the Permit has to be made. For the applicant to be successful, they would have to be able to demonstrate to the Agency, in accordance with Regulation 19 of the PPC Regulations, that there is no pollution risk and that no further steps are required to return the site to a satisfactory state.

## Transfer of the permit or part of the permit

Before the Permit can be wholly or partially transferred to another person, a joint application to transfer the Permit has to be made by both the existing and proposed holders, in accordance with Regulation 18 of the PPC Regulations. A transfer will be allowed unless the Agency considers that the proposed holder will not be the person who will have control over the operation of the installation or will not ensure compliance with the conditions of the transferred Permit. If the Permit authorises the carrying out of a specified waste management activity, then there is a further requirement that the transferee is considered to be a "fit and proper person" to carry out that activity.

## Status Log

Detail	Date	Comment
Application NP3433BC	Received 06 October 2004	-
Response to request for information	Request dated 08/12/4	Response dated 28/01/05
Permit NP3433BC	Determined 24/03/05	-
Application for variation	Received 07/09/05	
Variation PP3433LP	Determined 01/12/05	

*End of introductory Note*

**Variation Notice**

Pollution Prevention and Control  
(England and Wales) Regulations 2000



**ENVIRONMENT  
AGENCY**

## Variation Notice

Permit number

**NP 3433 BC**

Variation Notice number

**PP 3433 LP**

The Environment Agency in exercise of its powers under Regulation 17 of the Pollution Prevention and Control (England and Wales) Regulations 2000 (S.I. 2000 No. 1973) (as amended), hereby varies the Permit issued on 24 March 2005 and held by you

**Convatec Limited ("the Operator"),**

Of/ whose Registered Office (or Principal Office) is

**Unit 20, First Avenue, Deeside Industrial Park, Deeside, Flintshire  
CH5 2NU**

**Company registration number 1309639**

to operate an Installation at

**Convatec Rhymney Gelling Fibre Plant, Unit 1, Heads of the Valleys Industrial Estate,  
Rhymney, Tredegar NP22 5RL**

to the extent set out in Schedules 1 to 3 of this Variation Notice.

This Notice shall take effect from 01/12/2005 **at 00.01 hours.**

Signed

A. Gibbs

Authorised to sign on behalf of the Environment Agency

Date

**1<sup>st</sup> December 2005**

## **SCHEDULE 1 - CONDITIONS TO BE DELETED**

1. None

## **SCHEDULE 2 - CONDITIONS TO BE AMENDED**

2. The following conditions to be amended:

- 1.1.1 The Operator is authorised to carry out the activities and the associated activities specified in Table 1.1.1.

**Table 1.1.1**

<b>Activity listed in Schedule 1 of the PPC Regulations / Associated Activity</b>	<b>Description of specified activity</b>	<b>Limits of specified activity</b>
Section 4.5 A(1)(a) – Producing pharmaceutical products using a chemical or biological process	Manufacture of gelling fibres	Receipt of raw materials to despatch of finished product.
Section 7 Part B – SED Activities. Manufacturing of pharmaceutical products	Manufacture of pharmaceutical products	Receipt of raw materials to despatch of finished product.
Directly Associated Activity	Storage and disposal of waste	From generation of waste to dispatch off site.
Directly Associated Activity	Control & abatement systems for emissions to air	Extraction and collection of waste gases and treatment via carbon adsorption and bioscrubber.

- 1.4.1 The Operator shall complete the improvements specified in Table 1.4.1 by the date specified in that table, and shall send written notification of the date of completion of each requirement to the Agency within 14 days of the completion of each such requirement.

**Table 1.4.1: Improvement programme**

Reference	Requirement	Date
IP1	The Operator shall establish a mass balance calculation to determine the total VOC emission from the installation, as a percentage of the total solvent input, and submit a copy to the Agency for approval.	Complete
IP2	The Operator shall provide a summary report, detailing plant commissioning operational performance. Details to be agreed in writing with the Agency.	31 March 2006
IP3	The Operator shall implement a formal procedure for the inspection and subsequent maintenance of tanks, impervious surfaces, containment kerbs and underground sumps with the purpose of preventing fugitive releases to ground. A copy of the procedure shall be submitted the Agency.	1 December 2005
IP4	The Operator shall implement a system to enable specific energy consumption monitoring of the installation	31 March 2006
IP5	The Operator shall undertake an assessment of the impact of noise arising from the installation on the amenity of the locality. This assessment shall be undertaken to a specification agreed with the Environment Agency. A report shall be sent to the Agency detailing proposals for the implementation of any further improvement options representing BAT.	31 December 2005
IP6	The Operator shall establish a Site Closure Plan having regard for the Agency Sector Guidance Note IPPC S4.02 and submit a copy to the Agency for approval.	Complete
IP7	The Operator shall obtain ISO 14001 certification for the installation as detailed in the application.	31 January 2006 (unless otherwise agreed in writing with the Agency)
IP8	The operator shall review the provision of MCERTS accreditation for the monitoring equipment, personnel and organisations employed for the emissions monitoring programme in condition 2.10.1 and propose a timetable for achieving this standard for any elements that are not MCERTS certified.	31 December 2005
IP9	The Operator shall conduct an assessment of all monitoring methods and procedures, both in-house and those employed by external contractors, for conformance with appropriate monitoring Standards such as CEN, BSI, ISO, etc., having regard for the Agency's Sector Guidance IPPC S4.02 and Monitoring Guidance M2 and the Sampling and Analysis Standards presented. A report on the findings and proposed actions will be submitted to the Agency.	31 December 2005
IP10	The Operator shall use measured VOC emission data to review the environmental impact of the installation using the Environment Agency's H1 assessment tool, or other agreed system.	31 December 2006
IP11	The Operator shall monitor releases to A2. This monitoring shall be agreed with the Agency prior to work commencing. A report shall be submitted to the Agency and agreed in writing and shall include monitoring results, an H1 assessment, further modelling if required, measures if required to minimise releases and a plan giving time-scales for implementation of these.	31 March 2006



2.2.1.2 Emissions to air from the emission points in Table 2.2.1 shall only arise from the source(s) specified in that Table.

**Table 2.2.1 : Emission points to air**

Emission point reference or description	Source	Location of emission point
A1	Bioscrubber stack	Point A1 on Drawing 5-ZTH-1103 EMISSION POINTS
A2	Reactor Room Extract	Point A2 on Drawing 5-ZTH-1103 EMISSION POINTS
A3	Dust Extraction	Point A3 on Drawing 5-ZTH-1103 EMISSION POINTS
A4	Steam Boiler	Point A4 on Drawing 5-ZTH-1103 EMISSION POINTS

2.2.1.3 The limits for emissions to air for the parameter(s) and emission point(s) set out in Table 2.2.2 shall not be exceeded.

**Table 2.2.2 : Emission limits to air and monitoring**

Emission point reference	Parameter	Limit (including Reference Period) <sup>1</sup>	Monitoring frequency	Monitoring method <sup>2</sup>
A1	VOC <sup>3</sup>	No limit <sup>4</sup>	Continuous and annual extractive	BS EN 13526:2001
A3	Dust	No visible release	NA	NA

Note 1: See Section 6 for reference conditions

Note 2: Or as agreed in writing with the Environment Agency

Note 3: Expressed as Total Carbon

Note 4: Limit to be reviewed twelve months after commencement of operations.

2.2.2.8 The limits for the emissions to sewer for the parameter(s) and emission point(s) set out in Table 2.2.8 shall not be exceeded.

**Table 2.2.8 : Emission limits and monitoring frequency to sewer**

Emission point reference	Substance	Limit (including Reference Period)	Monitoring frequency	Monitoring method
S1	pH	6-11, daily minimum and maximum	Continuous	BS 6068-2.29:1987 ISO 8288:1986
S1	COD	1458mg/l, weekly average	Weekly composite	BS 6068-2.34:1988; or BS ISO 15705:2002 BS 6068-2.80:2002
S1	Suspended Solids	400mg/l, weekly average	Weekly composite	BS EN 872:1996 BS 6068-2.254:1996

## Schedule 2 - Reporting of monitoring data

Parameters for which reports shall be made, in accordance with conditions 4.1.2 and 4.1.3 of this Permit, are listed below.

**Table S2: Reporting of monitoring data**

Parameter	Emission point	Reporting period	Period begins
VOC mg/m <sup>3</sup> (continuous)	A1	Every 3 months	01 April 2005
VOC mg/m <sup>3</sup> (extractive)	A1	Annually	01 April 2005
VOC % of total input	All emissions	Every 3 months	01 April 2005
chemical oxygen demand mg/l	S1	Every 3 months	01 April 2005
Suspended solids mg/l	S1	Every 3 months	01 April 2005
pH	S1	Every 3 months	01 April 2005
Water usage	n/a	Every 12 months	01 April 2005
Energy usage	n/a	Every 12 months	01 April 2005
Waste disposal and/or recovery.	n/a	Every 12 months	01 April 2005

## Schedule 3 - Forms to be used

Table S3: Reporting Forms		
Media / parameter	Form Number	Date of Form
Air	A1	24 March 2005
Sewer	S1	24 March 2005
All VOC emissions	SED1	24 March 2005
Energy	E1	24 March 2005
Waste Return	R1	24 March 2005
Water usage	WU1	24 March 2005
Performance indicators	PI1	24 March 2005

### **SCHEDULE 3 - CONDITIONS TO BE ADDED**

3. None