

## Environment Agency permitting decisions

### Surrender

We have decided to accept the surrender of the permit for George Street Chemicals operated by Synthomer Limited.

The permit number is EPR/GP3233LF.

The facility is located at 2 George Street, Batley, West Yorkshire, WF17 5AU.

The surrender number is EPR/GP3233LF/S003.

The decision was effective from 07/02/2014.

We are satisfied that the necessary measures have been taken to avoid any pollution risk and to return the site to a satisfactory state.

We consider in reaching that decision we have taken into account all relevant considerations and legal requirements.

### Summary of the decision

We have decided to accept the surrender of the permit.

We consider in reaching that decision we have taken into account all relevant considerations and legal requirements.

A non-technical description of the installation is included in the introductory note to the permit, however key points considered relevant to the decision to accept the surrender of the permit are outlined below.

A permit was issued under the Pollution Prevention and Control (PPC) Regulations to Synthomer Limited on 30/11/2006 to carry out the following activities, listed under Schedule 1 to the PPC Regulations (now the Environmental Permitting Regulations (EPR)):

- Section 4.1 Part A(1)(a)(viii): Producing organic chemicals such as – plastic materials, such as polymers, synthetic fibres and cellulose-based fibres.
- Section 7 Part B: Manufacture of coating preparations, varnishes, inks and adhesives, annual use over 100 tonnes.

The permit also authorised the operation of the following directly associated activities (DAAs):

- Raw materials, fuel and waste storage and handling;
- Operation of an effluent treatment process for treating trade effluent generated on the installation;
- Operation of a water cooling system and cooling towers; and
- Operation of systems for the supply of utilities and services such as electricity, steam, water and compressed air.

The main features of the installation when operational were as follows (reproduced from the non technical description in the permit and application site report (ASR)):-

- Delivery and storage of raw materials;
- Pre-weighing materials in bays, in batch-dedicated lots;
- Preparing soap solutions in preparation tanks;
- Preparing colloid solutions in colloid tanks;
- Charging of monomers and other materials followed by process reactions;
- Blending and additive addition;
- Filtration, storage and dispatch of finished product.

There were no discharges to surface or controlled waters from the installation. The Operator has applied to surrender the Permit owing to site closure. The permitted activities carried out by Synthomer Limited ceased on 30<sup>th</sup> September 2013.

## **Purpose of this document**

This decision document:

- explains how the operator's application has been determined
- provides a record of the decision-making process
- shows how all relevant factors have been taken into account

## **Structure of this document**

- Key issues
- Annex 1 the decision checklist

## **Key issues of the decision**

The test for the surrender of permits is given in paragraph 14 of Schedule 5 to the EPR 2010, where it states that:

*The regulator must accept an application to surrender an environmental permit in whole or in part under regulation 25(2) if it is satisfied that the necessary measures have been taken –*

- (a) to avoid a pollution risk resulting from the operation of the regulated facility; and*
- (b) to return the site of the regulated facility to a satisfactory state, having regard to the state of the site before the facility was put into operation.*

The factors that we have taken into account in determining whether to accept the application for surrender of the permit are described below.

### **Pollution risk**

The principal permitted activity carried out at the installation was the manufacture of water based polymer dispersion. The process undertaken included materials being pre-weighed and liquids were weighed and blended in blending tanks. Colloids were prepared and made into suspensions in a colloid preparation area. The prepared materials were then loaded into one of four closed stirred reactor vessels to form resinous polymers in a water suspension. Reactions were controlled by the rate of addition of materials and temperature control. Air emitted from the reaction vessels was abated through either two water-cooled condensers or through a water cooled-condenser and caustic scrubber if styrene was used.

The installation is located at 2 George Street, Batley, West Yorkshire, WF17 5AU. The site covers an area of approximately 6,750m<sup>2</sup> with its centre lying at National Grid Reference SE 24370 23830. The site is located on the outskirts of Batley town centre boarded to the north by Victoria Avenue and to the south by George Street. The surrounding land use is a mixture of industrial and residential.

The site has been operated as a chemicals site since the 1970's and prior to that was the location of a haulage business.



At the application stage five zones were identified on the site based upon where potential emission of polluting substances may occur if significant spillage or leakage takes place.

The potential sources of contamination associated with the activated permitted for operation by Synthomer Limited are listed in the following table:

Primary hazards	
Zone	Potential polluting substances
<b>A</b> Effluent drainage system – drains, sumps and interceptors	<b>Process effluent:</b> potentially containing un-reacted monomers, laboratory effluent, process effluent, sieve/filter cleaning, boiler and cooling tower blowdown, and potentially hydrocarbons (spillage during FLT filling). Will cause pollution of soil, groundwater and surface watercourses if released untreated.
<b>B</b> Tank farm	<b>Monomers (organic solvents):</b> Flammable, considered a polluting substance due to the potential to penetrate soils and cause groundwater contamination if spillage or leakage occurs.  <b>Hydrocarbons (gas oil):</b> Considered a polluting substance due to the potential to penetrate soils and cause groundwater contamination if spillage or leakage occurs. Oil is not readily biodegradable however unlikely to bioaccumulate, it can form a film over watercourses limiting oxygen supply and may be toxic to aquatic life.  <b>Ammonia:</b> Corrosive, toxic and harmful to watercourses.
<b>C</b> Drum store	<b>Acids/alkalis:</b> Corrosive, toxic to aquatic life, pollution of watercourses.  <b>Monomers:</b> Flammable, considered a polluting substance due to the potential to penetrate soils and cause groundwater contamination if spillage or leakage occurs.  <b>Biocides:</b> toxic to aquatic life, pollution of watercourses.
<b>D</b> Effluent tank	<b>Process effluent:</b> potentially containing un-reacted monomers, laboratory effluent, process effluent, tanker washing, sieve/filter cleaning, vacuum stripping, boiler and cooling tower blowdown, and potentially hydrocarbons (spillage during FLT filling). Will cause pollution of soil, groundwater and surface watercourses if released untreated.
<b>E</b> Historical waste disposal area	<b>Vinyl acetate:</b> Flammable, toxic, polluting substance.  <b>Other unknown substances:</b> potentially toxic to flora, fauna and aquatic life, and could cause pollution of soils and watercourses.

Raw materials and potentially polluting substances were all stored in appropriate areas, above ground storage tanks were labelled, hardstanding and bunding were routinely checked.

A number of areas relating to pollution prevention were identified as requiring improvement so the following ten Improvement programme requirements (IPs) were included in the permit. The Environment Agency (EA) concluded that based on the proposed operating techniques and site infrastructure, subject to the completion of the IPs, that there would be little likelihood of pollution associated with the activities.

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC1	<p>The operator shall submit a report assessing the feasibility of undertaking representative sampling / monitoring for total VOC's at air emission points A1-A12 identified in table S4.1 of the permit. The operator shall have regard to the Agency Technical Guidance Notes (monitoring) M1 and M2 and, as appropriate, propose a monitoring programme.</p> <p>The programme shall be implemented by the operator from the date of approval in writing by the Agency.</p> <p>The results of this monitoring programme and a revised impact assessment will be reported in writing to the Agency for review.</p> <p>The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the procedure.</p>	<p>Agree monitoring program by 30/01/07</p> <p>Report results by 28/02/08</p>
IC2	<p>The operator shall submit a programme in writing for monitoring Nonyl Phenol Ethoxylates discharged to trade effluent for agreement with the Agency.</p> <p>The program shall be implemented by the operator from the date of approval in writing by the Agency.</p> <p>The results of this monitoring programme and a revised impact assessment will be reported in writing to the Agency for review.</p> <p>The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the procedure.</p>	<p>Proposals for monitoring by 30/01/07</p> <p>Submission of report by 28/02/08</p>
IC3	<p>The Operator shall submit a written report to the Agency demonstrating that the requirements of the Solvent Emissions (England and Wales) Regulations 2004 have been fully met and describing any shortfalls.</p>	31/10/07
IC4	<p>The operator shall submit a report assessing the feasibility of undertaking representative sampling / monitoring for particulate emissions from the colloid preparation reactor.</p> <p>The operator shall have regard to the Agency Technical Guidance Notes (monitoring) M1 and M2 and, as appropriate, propose a monitoring programme.</p> <p>The programme shall be implemented by the operator from the date of approval in writing by the Agency.</p> <p>The results of this monitoring programme and a revised impact assessment will be reported in writing to the Agency for review.</p> <p>The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the procedure.</p>	<p>Propose monitoring by 30/03/07</p> <p>Submission of report by 28/02/08</p>
IC5	<p>The Operator shall submit a revised version of table 2.18 in the application, to identify all raw materials used on site, with the exception of laboratory chemicals, together with information on their annual usage, environmental fate, potential impact on the environment and potential substitutes for each raw material.</p>	30/04/08
IC6	<p>The Operator shall submit an Accident Management Plan to the Agency, having regard to the Agency Sector Guidance Note IPPC S4.01 Guidance for the Large Volume Organic Chemical Sector, April 2003, Section 2.8. This shall include emergency procedures to deal with firewater runoff.</p>	31/12/07
IC7	<p>The Operator shall carry out a BAT review, having regard to cost and benefit, of the use of</p>	30/07/08

	<p>NPEO at the installation.</p> <p>The report should consider alternative material substitution as part of the options appraisal and should have regard to EA sector guidance and H1 Environmental Assessment and Appraisal of BAT.</p> <p>The review report shall be submitted in writing to the Agency.</p>	
IC8	<p>The operator shall assess feasibility for reduction of emission of VOC's from the installation and submit a written report with the findings to the Agency. The operator shall have regard to the Agency Sector Guidance IPPC S4.01 Guidance for the Large Volume Organic Chemical Sector, April 2003 and, as appropriate, propose a development program.</p> <p>The program shall be implemented by the operator from the date of approval in writing by the Agency.</p> <p>The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the procedure.</p>	30/10/08
IC9	<p>A written plan shall be submitted to the Agency for approval detailing the results of a survey to establish the routes of sub-surface drains, sumps and pipework and their condition and the measures to comply with the requirements of section 2.2.5 of TGN S 4.02. Where appropriate the plan shall contain dates for the implementation of individual measures. The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the plan.</p> <p>The plan shall be implemented by the operator from the date of approval by the Agency.</p>	31/12/07
IC10	<p>The Operator shall develop a written Site Closure Plan having regard to the requirements set out in Agency Sector Guidance Note IPPC S4.01 Guidance for the Large Volume Organic Chemical Sector, April 2003. A written report shall be submitted to the Agency including a summary of the Plan.</p>	31/12/07

The site inspector confirmed in the EPR Compliance Assessment Reports (CAR) dated 21<sup>st</sup> and 24<sup>th</sup> January 2014 that;

- all permitting activities ceased on 30 September 2013;
- all decommissioning work has been completed; and
- all pollution risk has been removed from site.

### **Site Condition**

The Operator submitted the EPR Compliance Assessment Report, conducted on 22 October 2013, to support their application detailing the site condition. Further assessments and CAR forms have been completed, on 21<sup>st</sup> and 24<sup>th</sup> January 2014 respectively.

### **Environmental Setting**

The original PPC ASR included a satisfactory description of the environmental setting of the installation.

### **Changes to Activities**

There have been no changes to activities since permit issue, other than the shutdown of the activities for site closure. No additional dangerous or potentially polluting substances were introduced to the site during the life of the permit.

## Measures Taken to Protect Land

In addition to the IPs set in the Permit, the site protection monitoring program (SPMP) also included an Infrastructure Monitoring Programme (IMP). During the 'lifetime' of the Permit the Environment Agency carried out a number of audits to check compliance with these and to check the integrity of the bunds, hardstanding and drains as well as to determine the Operator's adherence to their own procedures as detailed in the IMP. The audits conducted since Permit issue highlighted that all bulk storage tanks and reactors had been appropriately engineered and maintained and there was no vulnerable unmade land within the installation. A source-pathway-receptor risk assessment concluded that the likelihood of contamination of the ground or groundwater was insignificant.

A number of deficiencies identified in the ASR were addressed by responses to Improvement Conditions, set in the permit. All Improvement Conditions were completed by the Operator.

The Environment Agency considers that the preventative measures implemented during the lifetime of the permit, including those incorporated into the SPMP and those covered by the requirements of the improvement condition, were satisfactory and demonstrate that significant pollution of the land at the installation has been prevented.

## Pollution Incidents

The CAR report states that the Environment Agency has no record of any occurrences of pollution incidents and records audited do not show compliance issues with respects to matters that may affect the condition of the land such as spills and leaks of polluting substances.

There has not been any major pollution incidents since the permit was issued in 2006 and all infrastructure has been inspected and maintained in accordance with the permit.

Pollution prevention measures associated with the permitted activities are considered to have been effective during the lifetime of the permit in preventing significant pollution of the underlying land.

## Decommissioning and Removal of Pollution Risk

The Operator has confirmed via email (dated 06/02/2014) that:-

- all permitted activities have ceased;
- the pollution risk has been removed; and
- the condition of the land has not deteriorated during the lifetime of the permit.

We are satisfied that the decommissioning activities were conducted in such a way that the risk of pollution was minimised and that no impact on the

underlying land occurred as a consequence of these activities (see section: Decommissioning and Removal of Pollution Risk, above). We therefore agree that the pollution risk has been removed.

We have previously stated that:

- We consider that the preventative measures implemented during the lifetime of the permit, including those incorporated into the SPMP and those covered by the requirements of improvement conditions, were satisfactory and demonstrate that significant pollution of the land at the installation has been prevented (see section: Measures Taken to Protect Land, above).
- No pollution incidents are reported within the installation during the life of the permit.
- We are satisfied that there have been no significant changes to the installation boundary or activities since permit issue, other than the shutdown of the activities for site closure, and that no additional dangerous or potentially polluting substances were introduced to the site during the life of the permit (see section: Changes to Activities, above).
- We are satisfied that the decommissioning activities were conducted in such a way that the risk of pollution was minimised and that no impact on the underlying land occurred as a consequence of these activities (see section: Decommissioning and Removal of Pollution Risk, above).

#### Reference Data

There is no baseline data with this site. Following Permit issue and submission of the SPMP the Environment Agency wrote to Synthomer on 2 March 2007 confirming that “No on-going ground monitoring is required as long as the proposed infrastructure monitoring is implemented and the integrity of the infrastructure is maintained”.

#### **Conclusion**

The Environment Agency is satisfied that the ‘test’ for the surrender of permits under paragraph 14 of Schedule 5 to the EP Regulations has been met.

Based on our analysis and consideration of the application to surrender the permit, we have concluded that:

- the necessary measures to avoid a pollution risk during the operation of the regulated facility were undertaken, which has protected the site from deterioration;
- all potential polluting activities associated with site activities have been removed; and
- the site of the regulated facility is in a satisfactory state for surrender.

## Annex 1: decision checklist

This document should be read in conjunction with the Duly Making checklist, the application and supporting information and permit/ notice.

Aspect considered	Justification / Detail	Criteria met
		Yes
<b>The site</b>		
Extent of the surrender application	The operator has provided a plan showing the extent of the site of the facility that is to be surrendered.  We consider this plan to be satisfactory,.	✓
Pollution risk	We are satisfied that the necessary measures have been taken to avoid a pollution risk resulting from the operation of the regulated facility.	✓
Satisfactory state	We are satisfied that the necessary measures have been taken to return the site of the regulated facility to a satisfactory state.  In coming to this decision we have had regard to the state of the site before the facility was put into operation.	✓