



**Cyfoeth
Naturiol**
Cymru
**Natural
Resources**
Wales

Natural Resources Wales permitting decisions

**Clariant Production UK Ltd,
Llantwit Fardre
Surrender Decision Document**

Application to Surrender Permit

The application number is: PAN-001747 (Permit EPR/BL7396IZ)

The Applicant / Operator is: Clariant Production Ltd

The Installation is located at: Clariant Production UK Ltd, Llantwit Fardre, Pontypridd

We have decided to accept the surrender of the permit for Clariant Production UK Ltd, Llantwit Fardre, operated by Clariant Production Ltd.

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.

Purpose of this document

This decision document:

- explains how the application has been determined
- provides a record of the decision-making process
- shows how all relevant factors have been taken into account
- justifies the specific conditions in the permit other than those in our generic permit template.

Unless the decision document specifies otherwise we have accepted the applicant's proposals.

Structure of this document

- Table of contents
- Key issues

Table of Contents

Natural Resources Wales permitting decisions	1
Application to Surrender Permit	1
Purpose of this document	1
Structure of this document	2
Table of Contents	2
Key issues of the decision	3
Clariant Production Ltd Chemical Works	3
Application for surrender	3
The site	3
Pollution Incidents	4
Site condition assessment	4
Site condition assessment	6
Conclusion	6

Key issues of the decision

Clariant Production Ltd Chemical Works

Application for surrender

We have accepted the full surrender of the environmental permit held by Clariant Production Ltd. The operator applied for a surrender on the 14 July 2017, the application was duly made on the 24 August 2017. A full surrender Site Condition Report was submitted to NRW with the application. NRW reviewed the report in line with the principles in 'Regulatory Guidance Note 9: Surrender' and concluded that the information presented in the report indicates that the site is in a 'satisfactory state'.

The site

The Clariant site in Llantwit Fardre was developed in the early 1970s and operated by NIPA Laboratories, prior to this development it is understood that the site was green-field. Clariant acquired the site in 2001 for the manufacture of specialty chemicals for personal care products, operating under the Pollution Prevention and Control (PPC), and then Environmental Permitting Regulations (EPR) permits. Permit BL7396 was first issued in 2002 and permitted the polymer production processes with the BV49331IX permit authorising the use of paraben's being issued in 2004. As contamination was found at the site at the point of acquisition by Clariant, the Environment Agency advised for Clariant to undertake a programme of monitored natural attenuation (MNA) focussed on the identified, pre-permit, phenol and chlorinated solvent contamination.

All manufacturing ceased during August 2012 the site was then decommissioned and demolished.

Prior to submitting their surrender application, Clariant engaged in discussions with NRW to agree a remediation approach, accounting for contamination caused prior to the present permit issuing (and present operator ownership).

Following the remediation activities, a period of 12 months of site monitoring was performed to assess any residual contamination levels. Monitoring revealed that while some contamination did remain, the site had been returned to an acceptable level.

Pollution Incidents

Under the present operator

The applicant has detailed the pollution instances since 2001. The applicant has described the incidents as Category 3 and 4: 'potentially minor environmental effect' and 'no potential environmental effect'. Notably these records include 5 instances of unplanned chemical release (31% of instances), however in each instance a significant event it was mitigated by a containment system.

Under previous operators

The applicant has included record of pollution incidents of the previous operator in their site condition report.

At the time of the acquisition of the site the current operator had an intrusive investigation performed. This site report identified toluene, phenol and chlorinated solvent contamination at the site from previous activities. This was used to set a baseline for the site as it was recognised that contamination had been caused by previous occupiers of the land.

Site condition assessment

As part of the agreement between Clariant and NRW, the following remediation objectives were set to direct the site works;

- Site remediation to a standard that achieves EPR Permit surrender, within a timescale appropriate to Clariant's business needs.
- Reduction of the main contaminant source term within the former production areas. Removal of the gross contamination within the principal sources to reduce the contaminant mass available for migration to human health and controlled waters receptors.
- Achieving the appropriate compliance criteria (Environmental Quality Standard or Generic Assessment Criteria) at the agreed off-site surface water sampling locations¹.
- Reduction of contaminant migration pathway effectiveness.

¹ AECOM (March 2016), (*Clariant*) *Llantwit Fardre Site Remediation Verification Report*, pp68

This included the following activities;

- Excavation of gross soil contamination from four identified source areas.
- Screening of excavated soils to allow segregation and stockpiling for re-use on site, or offsite treatment / disposal as non-hazardous or hazardous waste as applicable.
- Backfilling and re-profiling of the remediation areas, with reused site derived soils and/or imported clean backfill.
- Monitoring of contaminants of concern (chlorinated hydrocarbons, alcohols and phenols) within groundwater and surface water, during both the remediation works and for a period of beyond twelve months post remediation
- Completion of verification activities as specified in the Verification Plan².

The Verification Plan set out the requirements for:

- Defining and recording the extent of the remedial excavation works.
- Collecting soil quality data for materials left in-situ below the excavation base and in the excavation sides.
- Screening and segregating the excavated soil materials, so that the materials can be reused as backfill or disposed of off-site, as appropriate.
- Laboratory testing of excavated materials and acceptability criteria for re-use or waste acceptance criteria (WAC) testing for off-site disposal.
- Appropriately disposing materials off site and maintenance of evidence documentation.
- Acceptability criteria and laboratory analytical requirements for materials used for backfilling of the remedial excavations.
- Incorporation of environmental monitoring data into the verification activities, including the overall success factors for the remedial works, based on surface water monitoring data.
- Reporting of documentary evidence within the Verification Report.

Following site attendance by NRW Pollution Prevention and Control Officers on 13 October 2017 the onsite condition was confirmed as satisfactory for the environmental permit surrender.

² URS (December 2014), *Clariant Llantwit Fardre Remediation Works: Verification Plan*

Site condition assessment

The Site Condition Report was reviewed by NRW Geoscience team members as well as Operations staff (with the site specific experience).

Although there is no baseline reference data to support the permit surrender application the evidence of completed remediation works and subsequent (12 months of) monitoring data demonstrate that the level of contamination on site has declined to levels that no longer pose a risk to controlled waters for the contaminants used within the permit. On that basis NRW have no objection to the surrender of the permit.

Conclusion

We are satisfied that the necessary measures have been taken to avoid a pollution risk resulting from the operation of the regulated facility. Monitoring of emissions to land and water was carried out as specified. We are also 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.