

Natural Resources Wales permitting decisions

Variation

We have decided to issue the variation for the Pentre Agrochemicals Plant operated by Headland Agrochemicals Limited.

The variation number is EPR/FP3031CW/V002.

We consider in reaching that decision we have taken into account all relevant considerations and legal requirements and that the permit will ensure that the appropriate level of environmental protection is provided.

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

- Key issues
- Annex 1 the decision checklist

Key issues of the decision

This variation makes the following changes to the permit:

- Removal of emission to air point A001. This emission point is no longer needed as emissions from the manufacture of MEA Polyborate will be extracted and filtered through existing extraction plant that will vent inside the building and not to atmosphere;
- In relation to emission to air point A002, replacement of the Dust Check SFKJ6-12.5-10 dust collection unit with a reverse pulse cartridge filter dust extraction unit;
- Addition of a new emission to air point – A010 – in relation to the fungicide and herbicide filling lines. Exhaust from this emission point will be filtered using a carbon filtration unit prior to discharge to atmosphere;

- Replacement of the temporary herbicide storage tanks with two above ground bulk storage tanks and installation of appropriate tank failure and process control mechanisms and systems;
- Addition of emission point A011, which is the emission point associated with a new internal local exhaust ventilation system that has been fitted to extract particulate from Mixer 4. This is an internal emission point that vents inside the building following removal of particulate from the exhaust via filtration; and
- Removal of the footnote in Table S3.1 which states that emission point A005 would be decommissioned and replaced by A006 once A006 became operation in quarter 3 of 2013. This change is now complete, so we have removed this footnote and emission point A005 from Table S3.1.

Removal of Emission to Air point A001

The formulation area of the plant was removed at the end of June 2015 to make way for the site's new finished goods warehouse. Manufacture of MEA Polyborate will continue on site, but will move to the new formulation area. Manufacture of this product will take place in vessels that utilise dust extraction units that vent to the internal atmosphere inside the building. The dust extraction unit linked to the emission to air point A001 (the DEI 96M 3 bank shaker filter unit) will be decommissioned. Emission point A001 and the associated annual periodic monitoring requirements are therefore no longer required, and we have removed them from the permit.

Replacement of the Dust Extraction Unit at Emission to Air point A002

The abatement plant that extracts dust from emissions that result from HSD Cells 1 and 2 and the small weigh booth (the Dust Check SFKJ6-12.5-10 dust collection unit) in the new formulation area will be replaced with a 12,500 m³/hr reverse pulse polyester cartridge filter unit. BAT for abatement of dust from the emissions resulting from the manufacture of fertilisers as described in the Large Volume Inorganic Chemicals – Ammonia, Acids and Fertilisers BRef includes the use of fabric filters. We are therefore satisfied that this abatement method will adequately protect human health and the environment.

Addition of Emission to Air point A010

This emission point has been included in the permit due to the installation of an Local Exhaust Ventilation (LEV) system within the fungicide and herbicide filling area of the plant to create a better working atmosphere for operatives working on the filling lines. The LEV system will have the capacity to extract fume from all five filling lines. Two of the five lines will be connected to the system in 2015, with the remaining three being connected in 2016. Extracted fume will be passed through a four-stage carbon filtration unit to clean the air before it is vented to atmosphere via an external stack. This stack has been given the reference A010 in the permit.

Monitoring of the internal atmosphere within the filling area of the plant has shown that levels of fume are within the exposure limits applicable to workers inside the building. Emissions to air via emission point A010 are therefore likely to be insignificant even without the use of abatement plant. As a result we are satisfied that the emissions from A010 present a very low risk to human health and the environment. Accordingly, we have not set limits on the emissions from this emission point.

Following commissioning of the new LEV system and carbon filtration unit, the effectiveness of the carbon media will be determined by periodic testing of saturation levels. This information will be used to determine the correct carbon media mix so that a maintenance procedure for replacement of the media can be developed. We are satisfied that this control will ensure that the effectiveness of the filtration unit is maintained over time.

New Herbicide Storage Tanks

The two tanks used for herbicide storage at the site were in a poor state of repair and did not have the appropriate failure and process control mechanisms to prevent release of herbicide to ground and groundwater. The current herbicide storage arrangements therefore did not represent Best Available Techniques (BAT) as described in TGN EPR 4.03 'The Inorganic Chemicals Sector'.

A new herbicide storage facility has been installed which comprises the following:

- Two 30,000 litre above ground storage tanks;
- Both tanks are fitted with radar level indication devices linked to high level alarms (sirens and sounders) and an interlock to prevent overfilling during deliveries;
- A 48,813 litre capacity concrete bund, which houses the two tanks and provides greater than 110% capacity of one of the tanks;
- Sump and pump for the bund to remove leaks should they occur and rainwater ingress;
- A bund level device linked to a control panel with an alarm, to indicate that a spill has occurred or that rainwater has collected in the bund; and
- Hard fixed pipework that does not penetrate the bund walls and floor and therefore does not compromise the integrity of the bund.

Addition of Emission to Air Point A011

This is a new emission point which emits filtered exhaust from a new internal local exhaust ventilation system that has been fitted to extract particulate from Mixer 4. This is an internal emission point that vents inside the building following removal of particulate from the exhaust via filtration. As this emission point vents inside the building, emissions will need to comply with Workplace Exposure Limits; concentrations of particulate in the exhaust will therefore be very low.

We are satisfied that the above measures represent BAT and that risk to human health and the environment from the new herbicide storage facility will be minimised through these control measures and effective preventative maintenance.

Annex 1: decision checklist

This document should be read in conjunction with the application and supporting information and notice.

Aspect considered	Justification / Detail	Criteria met
		Yes
European Directives		
Applicable directives	All applicable European directives have been considered in the determination of the application.	✓
The site		
Extent of the site of the facility	The operator has provided a plan which we consider is satisfactory, showing the extent of the site of the facility. A plan is included in the permit and the operator is required to carry on the permitted activities within the site boundary.	✓
Operating techniques		
Operating techniques	We have reviewed the techniques used by the operator and compared these with the relevant guidance note TGN EPR 4.03 'The Inorganic Chemicals Sector'. The proposed techniques for priorities for control are in line with the benchmark levels contained in the TGN and we consider them to represent appropriate techniques for the facility.	✓
The permit conditions		
Incorporating the application	We have specified that the applicant must operate the permit in accordance with descriptions in the application, including all additional information received as part of the determination process. These descriptions are specified in the Operating Techniques table in the permit.	✓
Operator Competence		
Environment management system	There is no known reason to consider that the operator will not have the management systems to enable it to comply with the permit conditions. The decision was taken in accordance with RGN 5 on Operator Competence.	✓