Decision document variation

We have decided to grant the variation for Fine Organics Seal Sands Facility operated by Fine Organics Limited.

The variation number is EPR/PP3439GG/V008.

The permit was issued on 06/11/2026.

The variation is for the permitting of the production, in batch reactions, of flocoumafen (FCM), a second-generation anti-coagulant rodenticide. A new release point to air related to this production process, A1/5, is now included in the permit.

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 provides a record of the decision-making process. It

- highlights key issues in the determination
- summarises the decision making process in the decision considerations section to show how the main relevant factors have been taken into account
- shows how we have considered the consultation responses.

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

Read the permitting decisions in conjunction with the environmental permit and the variation notice.

Key issues of the decision

Emissions to Air

The production of flocoumafen (FCM) takes place within existing and modified development laboratories on site. There is no significant new production plant being constructed as part of this new production process.

The operator will produce approximately 200kg of FCM per annum in a batch process with two batch reactions, each expected to produce about 2.5kg, per week.

There will be no new aqueous emissions because of this project.

The only new emissions will be to air, and these will be released through new emission point, A1/5.

There are essentially seven process stages, and, at all stages, the venting of FCM production equipment connects to a common venting route which terminates at this new emission point.

Throughout the process, the following engineering controls are applied:

- All process vessels are connected to a common vent system which discharges via a dedicated activated carbon adsorption unit prior to release through the environmental emission point.

- Production vessels are also fitted with condensers operating at approximately 2°C to condense solvent vapours prior to entering the vent system.

- Vacuum systems vent through dedicated condensers to minimise solvent loading to the carbon bed.

- Nitrogen consumption and associated venting are minimised using pre-inerting and blanketing techniques.

- Liquid transfers are undertaken using dead vacuum systems, avoiding open handling and reducing fugitive emissions.

Potential releases are therefore limited to residual solvent vapours, either EDC (ethylene dichloride) or methanol, within vent streams following condensation and are abated through activated carbon adsorption before discharge.

For each of the seven process steps, the potential releases and abatement measures are defined below:

Process Stage	Description	Potential Release	Abatement Measures
Stage 1	Condensation Reaction	Solvent vapour (EDC)	Closed vessel, condenser, carbon bed
Stage 2	Neutralisation and Phase Separation	Solvent vapour (EDC)	Closed vessel, condenser, carbon bed
Stage 3	EDC Removal by Vac Distillation	EDC vapours generated; this represents one of the highest potential solvent emission stages.	Closed vacuum system fitted with dedicated condensers operating at approximately 2°C, recovery of condensed solvent, residual vapours routed through activated carbon adsorption prior to discharge.
Stage 4	Methanol Solvent Exchange by Atmospheric Distillation	Solvent vapour (Methanol & EDC)	Closed vessel, condenser, carbon bed
Stage 5	Crystallisation	Minor solvent vapours from residual solvents present during cooling and crystallisation.	Closed vessel, condenser, carbon bed
Stage 6	Filtration and Drying	Minor solvent vapours	Contained filtration and drying equipment, closed transfers, solvent vapours routed through common vent system and carbon bed. Any particulate handling undertaken within contained systems.
Stage 7	Milling	Potential particulate emissions associated with handling and size reduction of dry FCM product. No solvent emissions expected.	Milling undertaken within a contained isolator operating at approximately -40 Pa. Exhaust air passes through H14 HEPA filtration prior to release via the environmental stack.

The operator submitted air quality modelling for the emissions of EDC and methanol at expected concentrations – 0.15mg/m^3 EDC and 0.09mg/m^3 methanol (Air Emissions Risk Assessment reference 22.065617.00001 revision 1, dated 13/02/2026). The modelling concluded that the process contributions (PCs) are insignificant and there are no predicted exceedances of the Environmental Assessment Levels (EALs) for the protection of human health at the point of maximum ground level impact or any human exposure location outside the site boundary. Using the data from the modelling, the applicant also carried out a further mathematical assessment to demonstrate that emissions of EDC at the BAT-AEL of 1mg/m^3 would also have an insignificant impact.

We have reviewed the modelling submitted and agree that the proposed releases were modelled appropriately and that representative receptors were included. We concluded that the overall risks from EDC and methanol emissions were low and agreed that the predicted impacts were unlikely to result in exceedance of any EAL.

We have set the emission limit value (ELV) for EDC from emission point, A1/5, in the varied permit notice as the BAT-AEL for EDC in the UK Best Available Techniques Formal Draft BAT Conclusions for Common Waste Gas Management and Treatment Systems in the Chemical Sector. The operator has agreed to this in their application document, “Environmental Permit Variation – BAT Conclusion Compliance Assessment” (13 April 2026, Rev 2.0) which indicated that the mass release of EDC was sufficient for the BAT-AEL to apply.

We have required the operator to monitor emissions quarterly for the first six-months to obtain some confirmatory data on emissions and then every six-months as outlined in the UK Best Available Techniques Formal Draft BAT Conclusions for Common Waste Gas Management and Treatment Systems in the Chemical Sector.

The operator demonstrated in the application documentation, that the mass release of methanol (from A1/5) would not be sufficient for the total volatile organic carbon (TVOC) BAT-AEL to apply. We have therefore not included the TVOC BAT-AEL on releases from A1/5.

We have included monitoring for methanol (as TVOC) from release point, A1/5, similarly to that required for EDC.

We have not included an ELV for methanol, separate from the TVOC BAT-AEL which is not applicable, from release point, A1/5. This is because the emission of methanol from A1/5 will be essentially an insignificant proportion of the total methanol released from site, from existing A1/2 and A1/3, both of which were included in the modelling of methanol emissions. It is expected that the mass release of methanol from A1/5 will be approximately 0.03% of the total methanol released from site which, in its entirety, was shown in the modelling to have an insignificant impact.

The routine monitoring required in the permit variation notice will demonstrate that methanol concentrations from release point A1/5 remain insignificant.

In the case of particulate matter, the operator proposed in the application that, the HEPA (High Efficiency Particulate Air) filters on the isolators will achieve 99.995% particulate removal efficiency of what are expected to be very low levels of particulates within the isolator air. They predicted therefore that the particulate levels in the air vented to atmosphere from the fume cupboards was anticipated to be negligible and hence they proposed no routine monitoring of particulate emissions from release point, A1/5.

An Improvement Programme condition, IP31, has been set requiring the operator to carry out particulate monitoring to confirm this and Table S3.1 has Note 7 added noting that emission limit value and monitoring frequency would be set, if required, upon completion of IP31.

Decision considerations

Confidential information

A claim for commercial or industrial confidentiality has been made.

The applicant made the claim for confidentiality relating to certain documentation in the application relating to the chemistry of the production process and the design of the equipment in use within the production process.

We have accepted the claim for confidentiality.

We have excluded specific details on process chemistry and production equipment. The nature of the product being manufactured and the general details of each of the production stages have not been excluded.

We consider that the inclusion of the relevant information on the public register would prejudice the applicant's interests to an unreasonable degree.

The decision was taken in accordance with our guidance on confidentiality.

Identifying confidential information

We have not identified information provided as part of the application that we consider to be confidential.

The decision was taken in accordance with our guidance on confidentiality.

Consultation

The consultation requirements were identified in accordance with the Environmental Permitting (England and Wales) Regulations (2016) and our public participation statement.

The application was publicised on the GOV.UK website.

We consulted the following organisations:

- Stockton on Tees Borough Council Director of Public Health.
- Stockton on Tees Borough Council Environmental Health Department.
- United Kingdon Heath Security Agency (UKHSA).
- Health and Safety Executive (HSE).
- Food Standards Agency.

Comments were received from:

- Stockton on Tees Borough Council Environmental Health Department.
- United Kingdon Heath Security Agency (UKHSA).

The comments and our responses are summarised in the consultation responses section.

The regulated facility

We considered the extent and nature of the facility at the site in accordance with RGN2 ‘Understanding the meaning of regulated facility’, Appendix 2 of RGN2 ‘Defining the scope of the installation’ and Appendix 1 of RGN 2 ‘Interpretation of Schedule 1’.

We have added a new scheduled activity, S4.4 Part A (1)(a) [producing plant health products or biocides] for the new production of flocoumafen (FCM) (AR11) rather than add this to the existing S4.4 Part A (1)(a) activity for the production of FPM.

The extent of the facility is defined in the site plan and in the permit. The activities are defined in table S1.1 of the permit.

This permit applies to only one part of the installation – the production activities which are under the control of the applicant. The names and permit numbers of the operators of other parts of the installation are detailed in the permit's introductory note.

The site

The operator has provided plans which we consider to be satisfactory.

These show the extent of the site of the facility including the discharge points.

The plans show the location of the part of the installation to which this permit applies on that site.

The plan is included in the permit.

Site condition report

The operator has provided a description of the condition of the site, which we consider is satisfactory. The decision was taken in accordance with our guidance on site condition reports and baseline reporting under the Industrial Emissions Directive.

In their updated Stage 1-3 Assessment submitted, they indicate the presence on site of new relevant hazardous substances as part of the FCM production process but confirm that the combination of engineering controls, site infrastructure and operational management systems means that no credible pollutant linkages are established under normal or reasonably foreseeable conditions.

They note that whilst the likelihood is low due to controls, a pathway cannot be fully ruled out under abnormal conditions. They note that the site operates established emergency response procedures, including spill containment, incident response and staff training, which are designed to manage abnormal events and minimise the potential for releases to reach soil or groundwater.

We have included an Improvement Condition, IP32, requiring the operator to include the findings of this Stage 1-3 Assessment within the scope for their next routine soil/groundwater monitoring programme in 2028 and obtain Environment Agency agreement for this scope prior to commencing work.

Nature conservation, landscape, heritage and protected species and habitat designations

We have checked the location of the application to assess if it is within the screening distances we consider relevant for impacts on nature conservation, landscape, heritage, protected species and habitat designations. The application is within our screening distances for these designations.

We have assessed the application and its potential to affect sites of nature conservation, landscape, heritage, protected species and habitat designations identified in the nature conservation screening report as part of the permitting process.

We consider that the application will not affect any site of nature conservation, landscape and heritage, and/or protected species or habitats identified.

We have not consulted Natural England.

We have sent a Habitats Risk Assessment (HRAS) Stage 1 to Natural England for information only.

The decision was taken in accordance with our guidance.

Environmental risk

We have reviewed the operator's assessment of the environmental risk from the facility.

The operator’s risk assessment is satisfactory.

General operating techniques

We have reviewed the techniques used by the operator and compared these with the relevant BAT Reference document and guidance notes and we consider them to represent appropriate techniques for the facility.

The operator has provided information to support compliance with the BAT Reference document. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance.

The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.

Operating techniques for emissions that screen out as insignificant

Emissions of ethylene dichloride and methanol have been screened out as insignificant, and so we agree that the applicant’s proposed techniques are Best Available Techniques (BAT) for the installation.

We consider that the emission limits included in the installation permit reflect the BAT for the sector.

National Air Pollution Control Programme

We have considered the National Air Pollution Control Programme as required by the National Emissions Ceilings Regulations 2018. By setting emission limit values in line with technical guidance, we are minimising emissions to air. This will aid the delivery of national air quality targets. We do not consider that we need to include any additional conditions in this permit.

Pre-operational conditions

We have not added a new pre-operational condition.

The existing pre-operational condition has not yet been completed and has been retained in this variation notice.

Improvement programme

Based on the information on the application, we consider that we need to include an improvement programme.

We have included an improvement programme to:

- Confirm that the particulate emissions from A1/5 are insignificant requiring no emission limit values or routine monitoring frequencies to be set. See Key Issues section for more detail.
- Agree the scope of the next routine soil/groundwater monitoring exercise with the Environment Agency prior to its commissioning. See earlier section on Site Condition Report.

Emission limits

Emission Limit Values (ELVs) based on Best Available Techniques (BAT) have been added for the following substances:

- Ethylene dichloride from new emission point, A1/5, added at the BAT-AEL from the UK Best Available Techniques Formal Draft BAT Conclusions for Common Waste Gas Management and Treatment Systems in the Chemical Sector.

This was agreed by the applicant.

Although no emission limits have been set for particulate releases from A1/5, an Improvement Condition, IP31, has been included in the permit requiring monitoring to confirm insignificant emissions of particulates. Should that not be the case, Note 7 to Table S3.1 states that emission limit values and routine monitoring may be set after completion of IP31.

Monitoring

We have decided that monitoring should be added for the following parameters, using the methods detailed and to the frequencies specified:

- Ethylene dichloride and methanol (as TVOC) from new emission point, A1/5.

These monitoring requirements have been included in order to confirm emissions are at the levels proposed in the application and demonstrate no adverse impact on the receiving environment.

We made these decisions in accordance with UK Best Available Techniques Formal Draft BAT Conclusions for Common Waste Gas Management and Treatment Systems in the Chemical Sector.

Although no routine monitoring has been set for particulate releases from A1/5, an Improvement Condition, IP31, has been included in the permit requiring monitoring to confirm insignificant emissions of particulates. Should that not be the case, Note 7 to Table S3.1 states that routine monitoring may be set after completion of IP31.

Based on the information in the application we are satisfied that the operator's techniques, personnel and equipment have either MCERTS certification or MCERTS accreditation as appropriate.

Reporting

We have added reporting in the permit for the following parameters:

- Ethylene dichloride and methanol (as TVOC) from new emission point, A1/5.

The frequency of reporting reflects the monitoring frequencies stated for emission point A1/5 in Table S3.1 of the varied permit.

We made these decisions in accordance with UK Best Available Techniques Formal Draft BAT Conclusions for Common Waste Gas Management and Treatment Systems in the Chemical Sector.

Management system

We are not aware of any reason to consider that the operator will not have the management system to enable it to comply with the permit conditions.

The decision was taken in accordance with the guidance on operator competence and how to develop a management system for environmental permits.

Growth duty

We have considered our duty to have regard to the desirability of promoting economic growth set out in section 108(1) of the Deregulation Act 2015 and the guidance issued under section 110 of that Act in deciding whether to grant this permit variation.

Paragraph 1.3 of the guidance says:

“The primary role of regulators, in delivering regulation, is to achieve the regulatory outcomes for which they are responsible. For a number of regulators, these regulatory outcomes include an explicit reference to development or growth. The growth duty establishes economic growth as a factor that all specified regulators should have regard to, alongside the delivery of the protections set out in the relevant legislation.”

We have addressed the legislative requirements and environmental standards to be set for this operation in the body of the decision document above. The guidance is clear at paragraph 1.5 that the growth duty does not legitimise non-compliance and its purpose is not to achieve or pursue economic growth at the expense of necessary protections.

We consider the requirements and standards we have set in this permit are reasonable and necessary to avoid a risk of an unacceptable level of pollution. This also promotes growth amongst legitimate operators because the standards applied to the operator are consistent across businesses in this sector and have been set to achieve the required legislative standards.

Consultation Responses

The following summarises the responses to consultation with other organisations, and our notice on GOV.UK for the public and the way in which we have considered these in the determination process.

Responses from organisations listed in the consultation section

Response received from: Stockton on Tees Borough Council Environmental Health Department.

Brief summary of issues raised: The consultee noted that the submitted Air Emissions Risk Assessment concludes that emissions of methanol and 1,2-dichloroethane (EDC) from the proposed process would result in process contributions that are insignificant when assessed against the relevant Environmental Assessment Levels, with no predicted exceedances at human health receptors.

The consultee also noted that, in relation to local amenity, the Fine Organics site is located within an established industrial area and the submitted information indicated that impacts from noise, odour and vibration were expected to be low, with the nearest residential receptors located approximately 3.5 km from the installation.

Based on the information provided, the consultee had no objection to the proposed permit variation and no further comments to make regarding impacts on residential amenity.

Summary of actions taken: No further actions required.

Response received from: United Kingdom Health Security Agency.

Brief summary of issues raised: Based on the information contained in the application, the consultee noted they had no significant concerns regarding the risk to the health of the local population from the installation.

Summary of actions taken: No further actions required.