Permitting Decisions- Variation

We have decided to grant the variation for Wyke Farmhouse Cheese operated by Wyke Farms Ltd.

The variation number is EPR/BQ1824IV/V005.

The variation is for the construction of a new dairy production building, known as Ivy's Dairy, along with a butter dairy, product stores, weighbridge and lorry wash. The subsequent increase in production means that 100% more effluent will be generated, as such a second bioreactor is being added to the effluent treatment plant, along with a volute to reduce the liquid content of the sludge. The permitted area has been altered to include the new buildings and to remove a redundant effluent transfer pipeline.

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

Decision considerations

Confidential information

A claim for commercial or industrial confidentiality has not been made.

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:

- Food Standards Agency
- Local Authority – Planning
- Local Authority – Environmental Health
- Fisheries & Aquaculture Sciences
- Onshore Fisheries & Conservation
- Health & Safety Executive
- Sewerage Authority – Wessex Water
- Director of Public Health & UKHSA
- English Heritage

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’, Appendix 1 of RGN 2 ‘Interpretation of Schedule 1’,

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. The DAA for the pipeline to Lambley Piggery has been removed as this pipeline is now redundant. New DAA’s have been added for the new lorry wash and the existing emergency backup generator.

The site

The operator has provided a plan which we consider to be satisfactory.

These show the extent of the site of the facility including the discharge and emission points. Emission point W2 is detailed on the site plan in Schedule 7 of the permit. This is the proposed location, which will be in place when the pond has been constructed. The current location is the same as previously.

The plan is included in the permit. The site plan has been amended to include land for Ivy’s Dairy and to surrender land relating to the redundant pipeline to Lambley Piggery.

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.

The Operator applied to remove the existing pipeline from the site to Lambrook Piggery and surrender the land associated with this DAA. This pipeline used to take process effluent from the dairy to the piggery to be used as pig feed. This pipeline ceased to be used in approximately 2007. Flow rate monitoring was undertaken at the inlet to the pipe, but not the outlet.

The Operator stated that there had been no leaks detected from the pipeline and that it had been flushed with clean water and capped when it was ceased to be used. The Operator did not provide any baseline monitoring data to show that there had not been any leaks into the groundwater.

We are satisfied that this area of land can be surrendered and that the site condition report has been updated to reflect this. The site boundary has been amended to remove the pipeline.

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 and protected species and habitat designations. The application is not within our screening distances for these designations.

We have not consulted Natural England.

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.

In addition to the operators risk assessment the Agency undertook Monte Carlo modelling of the emissions to surface water from the installation.

The assessment shows that, applying the conservative criteria in our guidance on environmental risk assessment all emissions may be screened out as environmentally insignificant with the exception of**:**

- Biochemical Oxygen Demand (BOD)
- Total Suspended Solids (TSS)
- Ammonia
- Total phosphorous
- Aluminium

The Operator has an existing emergency backup generator onsite, which is used to power the critical abatement systems in the event of a power failure. This has no emission limits associated with it; however it is restricted to operation for the purpose of testing for no more than 50 hours per year and no more than 500 hours operation in an emergency. The emissions are directed through a stack (emission point A3).

General operating techniques

The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit. This has been updated to include the Accident Management Plan.

Operating techniques for emissions that do not screen out as insignificant

Emissions of BOD, TSS, Ammonia, Total phosphorous and Aluminium cannot be screened out as insignificant. We have assessed whether the proposed techniques are Best Available Techniques (BAT).

The Operator is using an onsite effluent treatment plant to reduce the concentration of these pollutants in their wastewater prior to discharge into the River Brue. Their effluent treatment plant currently comprises; turbidity tank, fat settlement tanks, balance tank, dissolved air flotation (DAF) plant including DAF balance tank, two bioreactors run in parallel. For the water re-use aspect there is an ultra-filtration plant, reverse osmosis plant and UV treatment equipment.

Additional effluent treatment plant capacity/equipment may be required in order to meet the emission limits set in the permit review (EPR/BQ1824IV/V004) and in this permit variation. A pre-operational condition (2) has been included to provide information on the bunds that serve the new effluent treatment plant in order to demonstrate that it is appropriately designed and sized for the tanks and the chemicals being stored there. The design of the new effluent treatment plant must take into account BAT12 of the Food & Drink BATc.

The proposed techniques/ emission levels for emissions that do not screen out as insignificant are in line with the techniques and benchmark levels contained in the technical guidance and we consider them to represent appropriate techniques for the facility. The permit conditions enable compliance with relevant BAT reference documents (BREFs) and BAT Conclusions, and Emission Limit Values (ELVs deliver compliance with BAT- Associated Emission Levels (AELs).

Conditions are being included for which the appropriate emission limits are more stringent than those associated with the best available techniques as described in BAT conclusions (see also emission limits).

Updating permit conditions during consolidation

We have updated permit conditions to those in the current generic permit template as part of permit consolidation. The conditions will provide the same level of protection as those in the previous permit.

Pre-operational conditions

Based on the information in the application, we consider that we need to include pre-operational conditions.

Pre-operational condition 1 has been included to ensure that the new cream tanks (9, 10, 11 and 12) are not filled prior to the completion of the bund serving them. The bund also needs to be constructed in line with CIRIA C736 due to the highly polluting nature of the liquids stored there.

Pre-operational condition 2 has been included to ensure that there is sufficient bund capacity (plus smaller bunds for chemical storage) for the new tanks and equipment that will needed for the Operator to meet the new emission limits on their discharge from W1.

Emission limits

Emissions limits have been added as a result of this variation. It is considered that the descriptive and/or numeric limits described below will prevent significant deterioration of receiving waters.

- Aluminium – 4.7 mg/l. As there is no background data for this pollutant in the watercourse then it has been assumed to be 50% of the EQS and the river needs limit set in line with EA guidance “Permitting of hazardous chemicals and elements in discharges to surface waters OI LIT 13134”.

Emissions limits have been amended as a result of this variation. It is considered that the descriptive and/or numeric limits described below will prevent significant deterioration of receiving waters.

- Discharge flowrate from emission point W1 – 64.5 m^3/h and 1,548 m^3/d.
- BOD – 5mg/l (currently 10mg/l). BOD is currently not monitored in the catchment. Both historic data from EA sample point 60030560, and Midclass data for high WFD status Type 1 were used to model the impact of the discharge. Modelling indicates that a BOD limit in the order of 14-36 mg/l would ensure the current high status class is maintained at the point of discharge. A BOD limit in the order of 5.44 to 12.68 mg/l is needed to meet the ‘no more than 10% deterioration’ target in the River Brue; this does not take account of any self-purification which will occur. As the maximum discharge rates are 6 times that of the Q95 flow, then the lower end of the 10% deterioration limit has been set.
- Ammonia – 1mg/l (currently 5mg/l). Data from EA sample point 60030560 and downstream sample point 60030462 have been used to model the impact of the discharge. Modelling indicates that an Ammonia limit in the order of 1.8 -2.7mg/l would ensure the current high status class is maintained at the point of discharge. Monitored ammonia concentrations are very low which means the percentage deterioration of upstream quality assessment can be misleading. In such circumstances a discharge may cause a large percentage deterioration on upstream quality but this can equate to a relatively small percentage of class being utilised. Therefore, instead of looking at 10% deterioration of the upstream quality, we have looked at giving 10% & 20% of the EQS (added to the mean upstream

quality). An ammonia limit in the order of 0.7 – 1.45 mg/l is needed to meet the above, in the River Brue; this does not take account of any self-purification which will occur. As such a limit of around 1mg/l looks to be appropriate. Whilst this is a tight limit, the current monitoring data from the operator shows that they would be able to comply with this figure.
- Total phosphorous – 1mg/l (currently 2mg/l).
- Fats, oils, greases and turbidity from emission point W2 – none visible. Turbidity has been added to the visual checks as there is the potential for milk/cream to enter the surface water system.

As the Operator has not yet constructed the new dairy, a discharge of >750m^3/d is not yet required. This is important because the Operator at this stage has indicated that they cannot meet the new, lower, emission limits associated with the substances listed above, which will be the case until the new effluent treatment plant has been constructed and commissioned. In order to give the Operator the flexibility they require to continue operating without breaching the new limits in the permit a sub note has been added to table S3.2 and applies to emission point W1 only, which will allow the Operator to continue to discharge at their existing emission limits, albeit with a limit of <750m^3/d discharge rate. The sub note wording is as such “Note 6. Limits apply upon flow exceeding 750m^3 or as otherwise in agreed in writing with the Agency.” Upon exceeding 750m^3/d the new limits will be enacted and the old limits will cease to be the compliance limits. This will ensure that the environment is sufficiently protected, in that the limits currently remain unchanged from those previously permitted, until the discharge exceeds the previous daily discharge limit.

Emission limits that have not changed as a result of this variation.

- TSS – 30 mg/l, which is the existing limit. The upstream sewage treatment works has an emission limit of 35 mg/l, so the existing limit for this discharge should offer sufficient environmental protection.
- pH - 6-9, which is the existing limit. This is satisfactory to ensure the protection of the receiving watercourse.
- Total nitrogen – 15kg/day, or 22.5 kg/day where the abatement efficiency is ≥ 80 % as an annual average, which is the BAT-AEL for direct discharges for surface waters. This limit has not been amended as there are no targets or background data for this pollutant.
- Chemical oxygen demand – 100 mg/l or 125 mg/l where the abatement efficiency is ≥ 95% as an annual average, which is the BAT-AEL for direct discharges for surface waters. This limit has not been amended as there are no targets or background data for this pollutant.

We have included the limit for aluminium based on non-statutory Environmental Quality Standards (EQS).

We have included the limits for BOD, ammonia and total phosphorous based on the relevant aspects of ‘no deterioration’ policy.

We have included a limit on the volume of the discharge. This limit was requested by the Operator and used within the pollutant modelling calculations.

Monitoring

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

Parameter	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method
Aluminium	4.7mg/l	24-hour flow-proportional composite sample	Every 4 days	BS EN ISO 11885 or BS EN ISO 17294-2 or BS EN ISO 15586
Iron	No limit set	24-hour flow-proportional composite sample	Monthly or as otherwise agreed in writing by the Environment Agency	PD ISO/TS 15923-2 or BS EN ISO 15586

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

- Visual turbidity at emission point W2. This has been added due to the risk of spillage of milk based products entering the watercourse from the activities onsite.
- Monitoring frequency of COD and TSS from emission point W1. This has been reduced to every four days at the Operators request. This is unlikely to increase the risk to the environment from the site as the emissions should be fairly consistent across that 4 day period.
- Monitoring standards for BOD, Ammonia, Total nitrogen, Total Phosphorous, COD and Chloride from emission point W1. This has been amended to include more monitoring standards that are appropriate for these substances. This will allow operational flexibility without increasing the risk to the environment.

We made these decisions in accordance with our Monitoring discharges to water: environmental permits online guidance from 11 June 2020.

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:

- Aluminium
- Iron

Considerations of foul sewer

We agree with the operator's justification for not connecting to foul sewer.

The facility is in a location where it is not reasonable to connect to the foul sewer.

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, 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 UKHSA.

Brief summary of issues raised:

1. That current odour management techniques remain effective for the proposed changes onsite.
2. BAT-AELs for the discharge from W1 should be included in the new permit for; COD, total nitrogen and total phosphorous.
3. Monthly monitoring for chloride from emission point W1 should be undertaken, as this is in line with the BAT requirements.

Summary of actions taken:

1. Levels of odour are unlikely to increase due to the proposed changes.
2. BAT-AELs have been included for COD and total nitrogen and a more stringent limit has been included for total phosphorous.
3. Monthly monitoring for chloride from emission point W1 has been included as a requirement in the permit.

Response received from Wessex Water.

Brief summary of issues raised:

1. None, given that the Operator is not planning on connecting to their sewerage assets.

Summary of actions taken:

1. None required.