

Permitting decisions

Bespoke permit

We have decided to grant the permit for Thornton Park operated by Thorntons Limited.

The permit number is EPR/WP3639QM.

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 checklist](#) to show how all relevant factors have been taken into account
- shows how we have considered the [consultation responses](#).

And

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

Read the permitting decisions in conjunction with the environmental permit. The introductory note summarises what the permit covers.

Description of activities

This installation manufactures up to 91 tonnes per day of chocolate and confectionery products. The facility has been operating for a number of years but has not had an Environmental Permit. This permit authorises this activity under Section 6.8 Part A(1)(d)(iii) of the Environmental Permitting (England and Wales) Regulation 2016 (EPR 2016). In addition the site also treats and discharges up to 400m³ of process effluent each day. The site is therefore also permitted under Section 5.4 Part A(1)(a)(ii) of the EPR 2016.

The following manufacturing activities are undertaken at the installation:

- Toffee, fudge, nougat and boiled sweets manufacture
- Enrobing and moulding of chocolates
- Production of starch moulded products such as Turkish Delight and jellies
- Production of hollow chocolate figures. These have not been included within the overall production quantities as the process line is solely for moulding. This therefore has not been considered further.

Key issues for the decision

1. Emissions to water

2. Emissions to air

3. Impacts on habitats

4. BAT Assessment

1. Emissions to water

Many of the raw materials used on site have the potential to pollute watercourses due to high biochemical oxygen demand (BOD). The chemicals used for cleaning and cooling also have the potential to pollute watercourses if allowed to escape.

Drainage

The operator has submitted a drainage plan with their application. Process effluent is generated as a result of cleaning the production lines, blowdown from the boilers and air compressors. The effluent is screened within fat traps. Settlement occurs in a below ground concrete effluent chamber and pH adjustment (by auto-dosing) is undertaken prior to discharge to sewer under consent from Severn Trent Water.

An inspection chamber (flume chamber) is provided for the sampling of treated effluent. An automated sampler is installed in the inspection chamber. Monitoring of the discharge is undertaken for volume, flow rate, temperature, pH, suspended solids, COD, phosphorous, fat, oil and grease.

Sodium hydroxide is used for chemical dosing and is stored on a bunded stillage within the bunded effluent treatment area.

Surface water runoff from roof areas, external roadways and a number of yard areas drain to the onsite surface water drainage system. Waters are directed to five individual discharge points into Oakerthorpe Brooke or the Severn Trent Water municipal surface water sewer as follows:

- SW1 to SW3 discharge to a land drain running adjacent to the eastern boundary of the site. SW1 covers the car park and drains via interceptor. SW2 passes via stormwater surge tank. SW3 has a number of silt pits. These three discharge points serve external tank storage areas.
- SW4 discharges direct to Oakerthorpe Brook (located under A38).
- SW5 drains to the Severn Trent municipal sewer. This covers the refuelling island and diesel storage tanks. Runoff from this area drains via interceptor.

Materials storage

Chocolate products are manufactured from liquid chocolate which is delivered to the site in bulk and stored in above ground storage tanks. As are other food grade materials glucose, sorbitol, vegetable fat, granulated sugar and condensed milk. These ingredients are transferred from the tanks to the production area via pipework.

There are two areas in which raw materials are stored externally. The Ferro Tank Farm consists of 6 x 30,000 litre stainless steel tanks used for the storage of chocolate. Each tank has a high level alarm and a floor gully surrounds the tank farm which acts to collect any spills. This drain is connected to the foul water drainage system.

There is a second external raw materials area located to the east of the main production building. This consists of a 10,000 litre granulated sugar tank with level gauge and high level alarm and pressure activated explosion hatch. There is also a milk chocolate tank (10,000 litres) with a level gauge, glucose tank (40,000 litres) with level gauge and a vegetable fat tank (14,000 litres) with level gauge and high level alarm.

Acceptance of bulk tanker deliveries is subject to a written procedure to minimise the chance of spills occurring. Contained within this are instructions on the procedures for responding to spills. Prior to tank filling

sheeting is laid down to capture any spills which are manually bagged and left to harden before being cleaned with soapy water. All deliveries are supervised by raw material operatives and the delivery drivers.

The vegetable fat tank lies within a brick bund however the liquid chocolate tanks are not. The operator has confirmed the drains around the tanks are surface water drains and do not have interceptors. The direction of flow from the surface water drains leads to the Oakerthorpe Brook.

The tanks are monitored remotely for fill level, leaks could be flagged quickly. In addition they are “water jacketed” double layering. However there is the potential for contaminants to reach the watercourse if significant leaks or spills occur. We have therefore included an Improvement Condition on the permit requiring further information and identification of suitable improvement measures for implementation.

In addition we have also included an Improvement Condition requiring an assessment of the containment system and drainage around the Ferro Tank Farm chocolate tanks. A major spillage or rupture of tanks may lead to the foul sewerage system becoming overwhelmed with fatty and high BOD waste.

Sorbitol and palm kernel oil tanks are located within the production building. These tanks have a level gauge which is monitored remotely from the site office. If a spillage occurred there is a lower sealed catch area which would contain the spill. Similarly condensed milk is discharged into two internal tanks. These have level gauges but no alarms. There is a perimeter foul drain. Spills will be captured within the interceptors to then be pumped out. The interceptors are designed to contain condensed milk spills.

Other food grade raw materials are delivered to the facility in smaller quantities in bags, boxes, tubs and IBC's which are stored in the dedicated chilled raw materials storage area within the production building.

Cleaning and hygiene chemicals have segregated storage in an integrally bunded chemical store external to the production building.

Chemicals used within the cooling towers are stored within bunded drums within a shed.

2. Emissions to air

There are a number of natural gas fired boilers on site which are used for onsite heat and steam generation as follows:

- 3 steam boilers rated at 3.7MWth each located in the boiler house in the production building. These provide steam for the steam clarifiers which are used for boosting the hot water system for the jacketed pipework and tanks and for heating the toffee pans and boiled sweet pans in the boiler bank preparation room. These existing operational boilers are defined as existing Medium Combustion Plant and do not currently fall under MCPD until the relevant date for compliance under the Environment Permitting (England and Wales) (Amendment) Regulations 2018.
- 3 x 0.15MWth boilers which provide hot water to the chocolate storage tank jackets. The hot water jacketed system is a closed loop system maintained at 45°C. These boilers are located in the production building.
- 5 x 0.615MWth boilers located in the Plant Room in the packaging building and 2 x 0.55MWth boilers located in the plant room of the warehouse. Both sets of boilers provide comfort heating to the building. They do not serve the manufacturing process and have therefore not been included within the permit. Their cumulative impacts have however been included within the air emissions report.

The operator submitted an Air Quality Impact Assessment which we have assessed. Our findings are summarised below:

Air Quality Impact Assessment

A methodology for risk assessment of point source emissions to air which we use to assess the risk of applications we receive for permits is set out in our guidance *Air emissions risk assessment for your environmental permit* and has the following steps:

- Describe emissions and receptors
- Calculate process contributions
- Screen out insignificant emissions that do not warrant further investigation
- Decide if detailed air modelling is needed
- Assess emissions against relevant standards
- Summarise the effects of emissions.

The methodology uses a concept of “process contribution (PC)”, which is the estimated concentration of emitted substances after dispersion into the receiving environmental media at the point where the magnitude of the concentration is greatest. The methodology provides a simple method of calculating PC, primarily for screening purposes, and for estimating process contributions where environmental consequences are relatively low. It is based on using dispersion factors. These factors assume worst case dispersion conditions with no allowance made for thermal or momentum plume rise and so the process contributions calculated are likely to be an overestimate of the actual maximum concentrations. More accurate calculation of process contributions can be achieved by mathematical dispersion models, which take into account relevant parameters of the release and surrounding conditions, including local meteorology.

Air dispersion modelling enables the PC to be predicted at any environmental receptor that might be impacted by the emissions from a plant. Once short-term and long-term PCs have been calculated in this way, they are compared with Environmental Standards (ES).

PCs are considered insignificant if:

- the long-term process contribution is less than 1% of the relevant ES; and
- the short-term process contribution is less than 10% of the relevant ES.

The long term 1% process contribution insignificance threshold is based on the judgements that:

- It is unlikely that an emission at this level will make a significant contribution to air quality; and
- the threshold provides a substantial safety margin to protect health and the environment.

The short term 10% process contribution insignificance threshold is based on the judgements that:

- spatial and temporal conditions mean that short term process contributions are transient and limited in comparison with long term process contributions; and
- the threshold provides a substantial safety margin to protect health and the environment.

Where an emission is screened out in this way, we would normally consider that the applicant’s proposals for the prevention and control of the emission to be acceptable. However, where an emission cannot be screened out as insignificant, it does not mean it will necessarily be significant.

For those pollutants which do not screen out as insignificant, we determine whether exceedances of the relevant ES are likely. This is done through detailed audit and review of the applicant’s air dispersion modelling, taking background concentrations and modelling uncertainties into account.

Where the PC is greater than these thresholds, the assessment must continue to determine the impact by considering the predicted environmental concentration (PEC). The PEC is the combination of the PC substance to air and the background concentration of the substance which is already present in the environment.

The PECs can be considered ‘not significant’ if the assessment has shown that both the following apply:

- proposed emissions comply with associated emission levels (AELs) or the equivalent requirements where there is no AEL; and
- the resulting PECs won't exceed 100% of the environmental standards.

Technical Assessment

The site lies on the edge of a large town with human receptors to the north, east and south. The applicant identified 9 locations of relevant exposure which were used in the modelling study.

Process Contributions (PC's) from the emissions sources have been assessed using dispersion modelling. This is then presented as a percentage of the relevant Environmental Standard.

The highest PCs at the most impacted sensitive receptor location are detailed below.

Predicted NO₂ impacts

Table 1 – Predicted impacts at most sensitive human receptors						
Pollutant	Environmental standard	Background	Process Contribution (PC)		Predicted Environmental Concentration (PEC)	
Unit	µg/m ³	µg/m ³	µg/m ³	% of Environmental standard	µg/m ³	PEC % of Environmental standard
NO ₂ Hourly mean R1 (onsite receptor Thorntons Office)	200	16.2	67.5	33.8	99.9	50
NO ₂ Annual mean R4 (nearest receptor within industrial estate)	40	16.2	3.7	9.2	19.9	49.7

The long term pollutant concentrations of nitrogen dioxide cannot be screened out as insignificant. The highest long term PC predicted at R4 is 3.7 µg/m³. This PC is 9.2% of the ES. The long term PC has not screened out but the PEC (19.9 µg/m³) of the ES is less than 100% (49.7%) of the associated ES and can therefore be considered not significant.

Short term pollutant concentration – continuous sources

The short term pollutant concentration of nitrogen dioxide from continuous sources cannot be screened out as insignificant. The highest short term PC modelled over the year 2018 is 67.5 µg/m³. This PC as a % of the ES is 33.8% and therefore >10%. The short term PC has not screened out but the PEC (99.9 µg/m³) of the

ES is less than 100% (50%) of the associated ES and we can therefore conclude that there is adequate headroom to indicate an exceedance of the ES is unlikely.

Predicted CO Impacts

The CO PC at the most impacted modelled receptor location is summarised below. The PC is insignificant as it is less than 10% of the short term standard at all locations. The PEC has therefore not been calculated.

Table 2 – Predicted impacts at most sensitive human receptor						
Pollutant	Environmental standard	Background	1-hour maximum Process Contribution (PC)		8-hour maximum Process Contribution (PC)	
Unit	µg/m ³	µg/m ³	µg/m ³	% of Environmental standard	µg/m ³	% of Environmental standard
CO Hourly mean R1 (onsite receptor Thorntons Office)	10,000	216	228.7	0.8	112.7	1.1

Location of nearest human receptors



3. Habitats assessment

There are no statutory European designated sites (SAC, SPA, Ramsar) or SSSI's located within the relevant screening distances. The operator has assessed the impact of the plant operations on a number of other sites i.e. non-statutory Local Nature Reserves and Ancient Woodland within the screening distance.

Conservation sites are protected in law by legislation. The Habitats Directive provides the highest level of protection for SACs and SPAs, domestic legislation provides a lower but important level of protection for SSSIs. Finally the Environment Act provides more generalised protection for flora and fauna rather than for specifically named conservation designations. It is under the Environment Act that we assess other sites (such as local wildlife sites) which prevents us from permitting something that will result in significant pollution; and which offers levels of protection proportionate with other European and national legislation. However, it should not be assumed that because levels of protection are less stringent for these other sites, that they are not of considerable importance. Local sites link and support EU and national nature conservation sites together and hence help to maintain the UK's biodiversity resilience.

For SACs SPAs, Ramsars and SSSIs we consider the process contribution (PC) and the background levels in making an assessment of impact. In assessing these other sites under the Environment Act we look at the impact from the Installation alone in order to determine whether it would cause significant pollution. This is a proportionate approach, in line with the levels of protection offered by the conservation legislation to protect these other sites (which are generally more numerous than Natura 2000 or SSSIs) whilst ensuring that we do not restrict development.

Critical levels and loads are set to protect the most vulnerable habitat types. Thresholds change in accordance with the levels of protection afforded by the legislation. Therefore the thresholds for SAC, SPA and SSSI features are more stringent than those for other nature conservation sites.

Therefore we would generally conclude that the Installation is not causing significant pollution at these other sites if the PC is less than the relevant critical level or critical load, provided that the Applicant is using BAT to control emissions, i.e. if the PC is less than 100% of the relevant critical level or critical load.

Critical levels

The operator carried out an assessment at the habitats sites for comparison with critical levels for the protection of vegetation and ecosystems. The 'critical level' is the gaseous concentration of a pollutant in the atmosphere above which direct adverse effects on receptors, including plants and ecosystems, may occur, according to current knowledge. Critical levels for the protection of vegetation and lower plants such as lichens and bryophytes, have been set for the following pollutants: oxides of nitrogen (NO_x (as NO₂)), sulphur dioxide (SO₂), ammonia (NH₃) and hydrogen fluoride (HF). The operator's results are presented below:

Habitat site	Pollutant	Critical Level (ug.m ⁻³)	PC (ug.m ⁻³)	PC/Critical Level (%)
Penny Town LNR	NOx Annual	30	0.5	1.67
	NOx Daily	75	3.5	4.6
Oakerthorpe LNR	NOx Annual	30	0.1	0.3
	NOx Daily	75	1.2	1.6
Carnfield Wood AW	NOx Annual	30	0.3	1
	NOx Daily	75	6.3	8.4
Broadoak Plantation AW	NOx Annual	30	0.2	0.7
	NOx Daily	75	3.7	5.0
Unnamed AW	NOx Annual	30	0.3	1

	NOx Daily	75	4.3	5.7
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Both the short and long term NOx PC's are < 100% of the Critical level and are therefore considered insignificant.

We agree with the operator's conclusion that the predicted short term and long-term impacts at ecological receptors are insignificant.

Our assessment

The operator omitted Local Wildlife Sites from their assessment. The nearest LWS Colliers Plantation Swanwick lies along the north eastern boundary of the permitted site and Nix's Wood lies 350m from the north eastern boundary.

We have carried out our own calculations using the data provided within the operators Air Quality Report. Our results are presented below.

Habitat site	Pollutant	Critical Level ($\mu\text{g}\cdot\text{m}^{-3}$)	PC ($\mu\text{g}\cdot\text{m}^{-3}$)	PC/Critical Level (%)
Colliers Plantation Swanwick	NOx Annual	30	3.2	10.7
	NOx Daily	75	30	40
Nix's Wood	NOx Annual	30	2.0	6.7
	NOx Daily	75	20	26.7

Both the short and long term NOx PC's are < 100% of the Critical level and are therefore considered insignificant.

It should also be noted that the boilers have been operating for some years and may already be incorporated in to the background data provided. In that case the impacts would be likely to be lower than presented here.

Critical loads

The operator carried out an assessment at the habitats sites for comparison with critical loads for the protection of vegetation and ecosystems. The 'critical load' relates to the quantity of pollutant deposited from air to the ground. It is a quantitative estimate of exposure to one or more pollutants below which significant harmful effects on sensitive elements of the environment are not expected to occur, according to current knowledge. Critical Loads have been set for nutrient-N deposition and acid deposition (N and S) but these are long-term standards. There are no Critical Loads for assessing short-term emissions. The operator's results are presented below:

Habitat site	Critical Load ($\mu\text{g}/\text{m}^3$) ^{Note 1}	Process Contribution (PC) ($\mu\text{g}/\text{m}^3$)	PC as % of Critical Load
N deposition (kg N/ha/yr)			
Penny Town LNR	10	0.09	0.9
Oakerthorpe LNR	10	0.02	0.2

Habitat site	Critical Load ($\mu\text{g}/\text{m}^3$) ^{Note 1}	Process Contribution (PC) ($\mu\text{g}/\text{m}^3$)	PC as % of Critical Load
Carnfield Wood AW	10	0.06	0.6
Broadoak Plantation AW	10	0.05	0.5
Unnamed AW	10	0.05	0.5
Acidification – contribution from N deposition (Keq/ha/yr)			
Penny Town LNR	3.328	0.007	0.20
Oakerthorpe LNR	3.566	0.001	0.03
Carnfield Wood AW	1.696	0.005	0.27
Broadoak Plantation AW	3.409	0.003	0.09
Unnamed AW	3.409	0.004	0.11
Acidification – contribution from S deposition (Keq/ha/yr) ^{Note 2}			
n/a	n/a	n/a	n/a

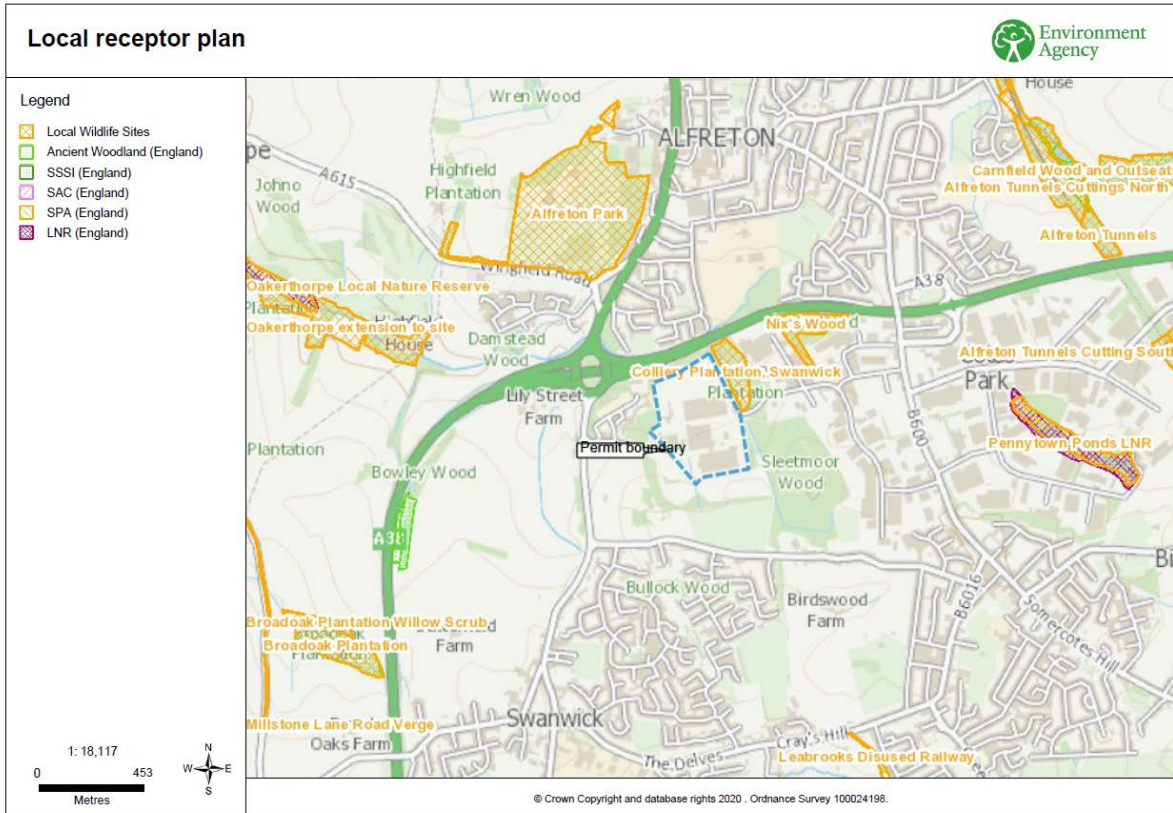
1. Based on APIS most sensitive critical load class of 'broadleaved, mixed and Yew woodland'

2. Sulphur contribution not applicable due to combustion of non-sulphurous natural gas in boiler plant

The results show that deposition impacts at the above sites will not cause significant pollution as all process contributions are less than the relevant critical load.

Although the operator did not include the Colliers Plantation Swanwick and Nix's Wood LWS's we have considered the potential for impact and are similarly satisfied that pollutant deposition at these sites will not cause significant pollution.

Location plan showing the permitted site boundary and nearby habitats



Noise

The site is located on the edge of an industrial estate and large Town. The nearest residential receptors lie 150m to the north however they are separated from the site by a busy road. Residential receptors also lie 200m to the south.

The site operates 24 hours a day however all production activities are undertaken within the buildings. Equipment located externally which could be noisy is chiller unit compressors. The operator confirms chillers with screw compressors have enclosures around the compressors to minimise the risk of noise egress. Chillers with piston reciprocating compressors have sound attenuation/anti vibration installations.

Potential noise emissions also include vehicle movements on site and noise from the processing building. The operator has outlined in their risk assessment that all plant is subject to regular preventative maintenance in accordance with the manufacturer's manual. Site surfacing and roads are maintained in good condition to prevent unnecessary noise and vehicles must adhere to an onsite speed limit.

The operator confirms the facility does not have a history of complaints with only 1 having been received several years ago regarding an externally located chiller unit. This was addressed by the installation of an acoustic barrier.

We haven't asked for a more detailed assessment of noise risk at this time. This is because we don't consider the installation likely to cause noise issues. We have however included our standard noise condition in the permit which requires the operator to use appropriate measures to prevent and minimise noise emissions. The condition means that if noise issues arise then we can request the operator to produce a noise management plan.

Odour

There are no emissions points to air other than from the boilers discussed above. Raw materials are stored in tanks and closed lidded containers and are not inherently odorous. Odours from the manufacturing activity

are though unlikely. We have therefore not considered this further at this time. We have however included our standard odour condition in the permit as with noise above.

4. Best Available Techniques (BAT) Assessment

The relevant BAT guidance document is the Food, Drink and Milk Industries BAT Conclusions (BATC) which were published in November 2019. The applicant provided a BAT assessment in line with Food, Drink and Milk Industries BREF (Final Draft October 2018) and our sector guidance EPR 6.10 Additional Guidance for the Food and Drink Sector which has been superseded by the BAT conclusions. This was considered acceptable as the application was submitted prior to the publication of the BATC and the documents cover similar information.

Table 1 Comparison of Indicative BAT with key measures proposed by the operator		
BAT ref.	Indicative BAT	Key measures proposed
1	Implement and adhere to EMS that incorporates the requirements as set out in BATC	EMS in place with the operator seeking to reach ISO status in 2020/21
2	Establish, maintain and regularly review inventory of water, energy, raw materials consumption as well as waste water and gas streams	<p>Water, energy and raw materials consumption and wastewater volumes discharged to sewer are regularly reviewed.</p> <p>The operator maintains an inventory of energy consumption via a carbon desktop system which is subject to regular review.</p> <p>Sub-metering for some elements of the process at the facility which enables the operator to monitor key water consuming plant/activities and seek measures to optimise/reduce water usage.</p> <p>Prepares an annual water mass balance for the facility.</p>
3	Emissions to water – monitor key process parameters	<p>Process effluent is discharged to sewer under consent from the sewerage operator following settlement and pH adjustment.</p> <p>Monitoring is undertaken in accordance with the trade effluent consent.</p>
4	Monitor emissions to water	N/A. No direct discharges from the manufacturing process to surface waters.
5	Monitor channelled emissions to air	N/A. Air emissions are limited to those from the gas fired boilers for which there is no current requirement to monitor.
6	<p>Increase energy efficiency using an appropriate combination of techniques:</p> <p>Energy efficiency plan</p> <p>Common energy saving techniques</p>	<p>Separate BAT assessment provided for Energy Efficiency (Energy Efficiency 2009).</p> <p>There are a number of techniques provided including;</p> <p>Lighting on sensors, plant design efficiencies, leak prevention programme, replace motors with high efficiency ones, steam boilers replaced and fitted with</p>

		<p>economisers, preventative maintenance, condensate return system.</p> <p>There are proposals for the installation of a 1.5MW cogeneration plant with absorption chiller planned for June 2021.</p> <p>Computerised building management system (BMS) in place to optimise sites cooling strategy. Electricity meters have been installed on all chillers to monitor, measure and improve performance through BMS controls and more energy efficient cooling.</p> <p>BMS also monitors temperature and humidity for production and packaging areas –automatic temperature controls.</p>
7	<p>Reduce water consumption and volume of water discharged using a combination of techniques;</p> <p>Water recycling and reuse</p> <p>Segregation of water streams</p> <p>Dry cleaning</p> <p>Pigging systems for pipes</p> <p>Optimisation of chemical dosing and water use in cleaning in place</p> <p>Cleaning of equipment as soon as possible</p>	<p>The operator has confirmed the process uses a number of water saving techniques. These include the use of an ultrasonic cleaner for belts and buckets which reuses water over the course of a week, closed water systems for chilled and hot water heating, recirculating systems for AHUs and radiators for space heating and recycling of boiler condensate.</p> <p>The tray wash, mould wash and plaque washer recirculate water.</p> <p>Three way flow valves to air handling units and production lines, PRV's to support the optimisation of water systems.</p> <p>Surface water run-off from external surfaces such as roofs and car parks is directed to surface water rather than effluent treatment.</p> <p>Dry cleaning is completed prior to wet cleaning of process lines.</p> <p>There is a pigging system in place.</p> <p>There is a CIP system in place within the condensed milk tanks and lineside chocolate tanks. CIP to be installed (2020) for the lineside chocolate tanks.</p>
8	<p>Prevent/reduce the use of harmful substances such as the proper selection of cleaning chemicals/disinfectants.</p> <p>Reuse chemicals in cleaning in place.</p> <p>Dry cleaning</p> <p>Optimised design and construction of equipment and process areas.</p>	<p>The operator confirms the cleaning chemicals are approved for use in food processes. All chemicals are subject to COSHH which includes an assessment for environmental hazards.</p> <p>Dry cleaning techniques are used where possible with consideration given to the design of all new equipment to ease cleaning.</p> <p>There is automated chemical dosing in use on the tray and mould wash and pallet base washer.</p>
9	<p>In order to prevent emissions of ozone-depleting substances and of substances with a high global warming potential from cooling and freezing. BAT is to use</p>	<p>Refrigeration systems and refrigerant types have been identified. These include high global warming potential gases and alternative glycol and ammonia systems</p>

	refrigerants with low global warming potential	<p>detailed as BAT.</p> <p>The warehouse deep freeze is chilled by an ammonia plant located within a sealed room fitted with leak detection.</p> <p>All refrigeration plant and associated pipework are insulated. Systems controlled by the Building Management System. The systems are subject to weekly visual inspections and maintained by the plant suppliers.</p> <p>There are long term plans to replace chillers with the lowest practical global warming potential as part of the sites maintenance cycle.</p>
10	<p>In order to increase resource efficiency BAT is to use a combination of the following techniques;</p> <p>Anaerobic digestion</p> <p>Use of residues as animal feed</p> <p>Separation of residues</p>	<p>All waste streams are segregated and sent for recycling, anaerobic digestion, animal feed, or are used as energy from fuel.</p> <p>There is no disposal to landfill.</p>
11	Provide an appropriate buffer storage capacity for waste water	An inspection chamber is provided for sampling of final effluent prior to discharge to municipal sewer. The settlement chamber and flume chamber provide buffer storage to enable the adjustment of the effluent quality if required prior to consented discharge to sewer.
12	<p>Use an appropriate combination of techniques given below;</p> <p>Neutralisation</p> <p>Physical separation</p>	<p>Neutralisation, screens used.</p> <p>No direct emissions, discharge via sewer therefore BAT-AELs do not apply.</p>
13	Reduce noise emissions. Set up and regularly review a noise management plan.	N/A, NMP not considered necessary
14	Reduce noise emissions using a combination of the following techniques;	Equipment located externally (chiller and compressors) have enclosures around them. All other potentially noisy production activities are within the building.
15	Reduce odour emissions, implement an OMP	N/A, OMP not considered necessary.

Decision checklist

Aspect considered	Decision
Receipt of application	
Confidential information	A claim for commercial or industrial confidentiality has not been made.
Identifying confidential information	We have not identified information provided as part of the application that we consider to be confidential.
Consultation	
Consultation	<p>The consultation requirements were identified in accordance with the Environmental Permitting Regulations and our public participation statement.</p> <p>The application was publicised on the GOV.UK website.</p> <p>We consulted the following organisations:</p> <p>Local Planning Authority – Environmental Health</p> <p>Health and Safety Executive</p> <p>Sewerage Undertaker – Severn Trent Water</p> <p>The comments and our responses are summarised in the consultation section.</p>
Operator	
Control of the facility	We are satisfied that the applicant (now the operator) is the person who will have control over the operation of the facility after the grant of the permit. The decision was taken in accordance with our guidance on legal operator for environmental permits.
The facility	
The regulated facility	<p>We considered the extent and nature of the facilities at the site in accordance with RGN2 'Understanding the meaning of regulated facility', Appendix 2 of RGN 2 'Defining the scope of the installation'</p> <p>The extent of the facilities are defined in the site plan and in the permit. The activities are defined in table S1.1 of the permit.</p>
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 including the discharge points and 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.
Biodiversity, heritage,	The application is within the relevant distance criteria of a site of heritage,

Aspect considered	Decision
landscape and nature conservation	<p>landscape or nature conservation, and/or protected species or habitat.</p> <p>A number of Local Wildlife Sites lie within the vicinity of the installation. The nearest being Colliers Plantation Swanwick which lies adjacent to the north eastern site boundary and Nix's Wood 350m to the north east.</p> <p>We have assessed the application and its potential to affect all known sites of nature conservation, landscape and heritage and/or protected species or habitats identified in the nature conservation screening report as part of the permitting process.</p> <p>We consider that the application will not affect any sites of nature conservation, landscape and heritage, and/or protected species or habitats identified.</p> <p>There are no European Sites or SSSI's within the statutory screening distance.</p>
Environmental risk assessment	
Environmental risk	<p>We have reviewed the operator's assessment of the environmental risk from the facility.</p> <p>The operator's risk assessment is satisfactory.</p>
Operating techniques	
General operating techniques	<p>We have reviewed the techniques used by the operator and compared these with the relevant guidance notes and we consider them to represent appropriate techniques for the facility.</p> <p>The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.</p>
Operating techniques for emissions that screen out as insignificant	<p>Emissions of Oxides of Nitrogen (NO and NO₂ expressed as NO₂) have been screened out as insignificant, and so we agree that the applicant's proposed techniques are BAT for the installation.</p> <p>We consider that the emission limits included in the installation permit reflect the BAT for the sector.</p>
Permit conditions	
Improvement programme	<p>Based on the information on the application, we consider that we need to impose an improvement programme.</p> <p>We have imposed an improvement programme to ensure that:</p> <p>There is sufficient protection of surface water from storage operations undertaken in external yard areas which drain to surface waters and foul sewer.</p> <p>See key issues section.</p>
Emission limits	We have decided that emission limits are not required in the permit.
Reporting	<p>We have specified reporting in the permit.</p> <p>This has been included in order to measure the performance of the site with</p>

Aspect considered	Decision
	regards to water usage, energy usage and raw materials usage.
Operator competence	
Management system	<p>There is no known reason to consider that the operator will not have the management system to enable it to comply with the permit conditions.</p> <p>The decision was taken in accordance with the guidance on operator competence and how to develop a management system for environmental permits.</p>
Relevant convictions	<p>The Case Management System has been checked to ensure that all relevant convictions have been declared.</p> <p>No relevant convictions were found. The operator satisfies the criteria in our guidance on operator competence.</p>
Financial competence	There is no known reason to consider that the operator will not be financially able to comply with the permit conditions.
Growth Duty	
Section 108 Deregulation Act 2015 – Growth duty	<p>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.</p> <p>Paragraph 1.3 of the guidance says:</p> <p>“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.”</p> <p>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.</p> <p>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.</p>

Consultation

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
Severn Trent Water
Brief summary of issues raised
The catchment team at Severn Trent Water do not have any comments to make to the consultation
Summary of actions taken or show how this has been covered
No action