APPLICATION FOR AN ENVIRONMENTAL PERMIT VARIATION UNDER THE ENVIRONMENTAL PERMITTING (ENGLAND AND WALES) REGULATIONS 2016 (AS AMENDED)

ENVIRONMENTAL PERMITTING TECHNICAL REQUIREMENTS DOCUMENT

PRINCES SOFT DRINKS DIVISION - CARDIFF
PORTMANMOOR ROAD, EAST MOORS,
CARDIFF, CF24 5HB

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ACRONYMS / TERMS USED IN THIS REPORT

AQMA	Air Quality Management Area
BAT	Best Available Techniques
bph	Bottle per hour
BREF	Best Available Techniques Reference Document
CCA	Climate Change Agreement
Cd	Cadmium
CIP	Cleaning in Place
CO	Carbon Monoxide
CO_2	Carbon Dioxide
cph	Carton per hour
DAA	Directly Associated Activity
EA	Environment Agency
EAL	Environmental Assessment Level
ECL	Environmental Compliance Limited
EHS	Environment, Health and Safety
ELV	Emission Limit Value
EP Regulations	Environmental Permitting (England and Wales) Regulations 2016 as amended
EPTR	Environmental Permitting Technical Requirements Document
EQS	Environmental Quality Standard
ERA	Environmental Risk Assessment
H_2O_2	Hydrogen Peroxide
Hg	Mercury
IED	Industrial Emissions Directive
LED	Light-emitting Diode
MCPD	Medium Combustion Plant Directive
NGR	National Grid Reference
NO_2	Nitrogen Dioxide
NRW	Natural Resources Wales
Princes	Princes Limited
QSHE	Quality, Safety, Health and Environment
SCR	Application Site Condition Report
SHEQ	Safety, Health, Environment and Quality
SuDS	Sustainable Drainage System
The Installation	Area contained within the proposed Environmental Permit boundary at Princes Ltd Soft Drinks Division
VSD	Variable Speed Drive
QA	Quality Assurance

1. INTRODUCTION

1.1. Overview

1.1.1. Environmental Compliance Limited ("ECL") has been commissioned by Princes Limited ("Princes") to prepare an Environmental Permitting Technical Requirements ("EPTR") document to form part of the Environmental Permit variation application at their Soft Drinks Division, hereafter referred to as "the Installation" located on Portmanmoor Road, East Moor Industrial Estate, Cardiff CF24 5HB.

1.1.2. Princes Limited process and pack a large range of foodstuffs such as fruit juice, dilute to taste soft drinks, carbonated drinks, water based drinks, oils, tuna, canned fruit and vegetables, pastes and sauces, under its brand names and for multiple retail outlets under their own labels. The Installation, to which this application relates, processes and packages fruit juice and fruit juice drinks.

1.1.3. As part of a major site expansion, Princes is proposing to increase production capacity by installing additional production lines and associated ancillary plant. Princes is proposing an increase in production capacity from 26,400 litres per hour to 70,400 litres per hour of fruit juice excluding packaging.

1.1.4. Princes is proposing to install additional emission points as part of the variation application. This includes the installation of one new additional natural gas fired boiler and associated emission point, designated as A2.

1.1.5. The variation also includes the introduction of six new emission points (A3-A8) emitting condensate from each filler line and another six new emission points (A9-A14) from SIG mini fillers emitting hydrogen peroxide ("H_2O_2") resulting from the packaging sterilisation process.

1.1.6. Princes also wish to relocate the foul sewer emission point, designated S1 and the associated sampling point which has resulted in the need to expand the Environmental Permit boundary. Additionally, due to the proposed increased production capacity, the associated effluent to foul sewer is anticipated to increase from 200m^3/day to 1,200m^3/day.

1.2. Installation Location

1.2.1. The Installation is located on Portmanmoor Road within a large commercial and industrial area to the south east of Cardiff City Centre. The Installation occupies an approximate area of 2.5ha and is centred on National Grid Reference ("NGR") 320369 175713.

1.2.2. Princes is proposing to expand the Environmental Permit boundary to relocate the S1 emission point. The proposed Environmental Permit boundary is shown on the Site Location Plan (ECL.046.01.01-001) contained in Section 3 of this application submission.

1.3. The Applicant

1.3.1. The Princes brand was established over 115 years ago. The Princes range includes over three hundred and fifty food and drink products including canned fish, meat, fruit and vegetables, sandwich fillings and soft drinks. Princes Limited's Soft Drinks Division has been operating under Environmental Permit BX8289IW since 2005.

1.3.2. The Cardiff site is currently undergoing significant investment and expansion benefiting local employment and boosting the Welsh economy.

1.4. Pre-Application Advice

1.4.1. A pre-application advice meeting was held on the 20th September 2018 at the Princes site with attendance from Mr Mark Thomas, the former Princes Environment, Health and Safety ("EHS") Manager, Mr David Willey (NRW Site Inspector at the time of the meeting), Mr Lewis Evans (NRW Permitting Officer) and Mrs Clare Boles and Miss Sara Jones of ECL.

1.4.2. The purpose of the meeting was to discuss the proposed variation including the increase in production capacity associated with the introduction of new production lines and the proposed installation of one additional natural gas fired boiler. The relevant NRW guidance and Best Available Techniques ("BAT") Reference Document ("BREF") which should be considered in the application were also discussed, as well as the applicability of the Medium Combustion Plant Directive ("MCPD").

2. LISTED ACTIVITIES

2.1. Current Activities

2.1.1. The Installation is a currently permitted Schedule 1 Activity under the Environmental Permitting (England and Wales) Regulations 2016 as amended ("EP Regulations") and is detailed in Table 1 below.

Table 1: Proposed Schedule 1 Activities

Schedule 1 Activity	Description of Specified Activity	Limits of Specified Activity
Section 6.8A1(d) (ii)	Treatment and processing, other than exclusively packaging, of the following raw materials, whether previously processed or unprocessed, intended for the production of food or feed (where the weight of the finished product excludes packaging)— (ii) only vegetable raw materials with a finished product production capacity greater than 300 tonnes per day or 600 tonnes per day where the installation operates for a period of no more than 90 consecutive days in any year.	Receipt of raw materials to despatch of finished product.

2.1.2. The Directly Associated Activities ("DAA") currently permitted are detailed in Table 2.

Table 2: Directly Associated Activities

Description of DAA	Limits of Specified Activity
Production of steam in a boiler fuelled by low sulphur natural gas for process heating	Receipt of low sulphur natural gas for the generation of heat and steam
Handling and dispatch of waste	Generation of waste to dispatch
Collection and discharge of process effluent to sewer	Production of effluent to discharge
Collection and discharge of uncontaminated surface water	Collection and discharge to sewer

2.2. Proposed Activities

2.2.1. There will be no change to the Schedule 1 Activity as a result of this variation application. However, to ensure the Environmental Permit application documents which form part of the Environmental Permit remain reflective of the site operations, this EPTR document details the site expansion proposals, including the introduction of additional production lines and associated ancillary plant, such as raw material storage tanks.

2.2.2. The maximum product production capacity will be increased from 26,400 litres per hour to 70,400 litres per hour. Based on the Installation operating 8760 hours per year, the maximum production capacity excluding packaging will be 616,704,000 litres per annum.

2.2.3. Princes is proposing to install one additional natural gas fired boiler and associated emission point, designated as A2. Consequently, the DAA will need to be updated to detail the operation of two boilers for process heating.

2.2.4. Detailed descriptions of all changes proposed as part of the expansion project are provided in Section 4.3. of this EPTR document.

3. MANAGEMENT TECHNIQUES

3.1. Overview of Environmental Management System

3.1.1. Princes operate a Quality, Safety, Health and Environment ("QSHE") management system which is externally certified to ISO 14001. The ISO 14001 certificate is provided in Appendix I of this document.

3.1.2. The EHS Manager has overall responsibility for environmental matters at the Installation.

3.1.3. Princes has established a documented management system which:

- ensures compliance with all relevant legislation;
- ensures compliance with the Installation's Environmental Permit and Trade Effluent Consent;
- identifies, assesses and minimises the risks of pollution arising from the Installation's activities;
- comprises a range of written procedures that cover all aspects of the Installation's activities;
- identifies, sets, monitors and reviews environmental objectives and key performance indicators; and
- includes a requirement to report annually on environmental performance, objectives, targets and future planned improvements.

3.2. QHSE Manual

3.2.1. A copy of Princes' QHSE Manual is provided in Appendix II.

3.3. Amendments to QSHE Management System

3.3.1. The QSHE Management System will be reviewed to take account of the variation to ensure it remains appropriate and effective. The principle anticipated changes are described below:

- update to the management system documents to take account of any additional Environmental Permit conditions, such as the new emission limit value ("ELV") for the proposed new boiler and emission point under MCPD;
- the Environmental Risk Assessment ("ERA") (ECL.046.01.01/ERA) will be used to inform the new risks and opportunities at the Installation and the site specific operational risk assessments forming part of the QSHE Management System will be reviewed and any additional control required will be documented;
- the environmental objectives and targets will take account of the proposed changes to ensure they appropriate;
- operational procedures will be reviewed to ensure they are aligned with the proposed changes to be introduced as part of the variation;
- the documented planned maintenance schedule will be updated to include maintenance and inspection related to new boiler, new production lines and ancillary equipment;
- emergency plans and procedures will be updated to take account of any additional

risks and the requirement for safe start up and shutdown for the new production lines and boiler;

- employees will be trained in the updated QSHE Management System and associated operational procedures; and
- all changes to the EMS will be documented and communicated to all employees.

4. OPERATING TECHNIQUES

4.1. Technical Standards

4.1.1. **European Legislation** - The following European Legislation will be used to inform the variation application:

- the Industrial Emissions Directive ("IED") is intended to be a single legislative instrument for permitting, compliance and enforcement of environmental legislation across all member states. The requirement of the IED will therefore be considered relevant at this time; and
- the Food, Drink and Milk Industries BREF (December 2019) will be considered as it covers Installations associated with the production of fruit juice for human consumption.

4.1.2. **National Legislation –** NRW implement the requirements of the IED via the EP Regulations and have provided guidance documents to assist in the preparation of Environmental Permit applications and the ongoing management of permitted Installations. NRW's '*How to comply with your environmental permit'* (Version 8, October 2014) has been considered in this variation application.

4.2. Current Activities

Production Capacity

4.2.1. The original Permit application detailed the use of two pasteurisers supplying 3 filler lines. Pasteurisers are the controlling factor on production capacity, therefore, only two fillers can be producing at the same time.

4.2.2. All three fillers were ambient laminated board fillers capable of producing 500ml to 1.1. litre cartons.

4.2.3. Pasteuriser 1 could supply SIG filler 1 or SIG filler 2, whilst Pasteuriser 2 could supply SIG filler 1 or SIG filler 3.

4.2.4. Therefore, the maximum capacity for the Installation was 26,400l/hr based on the maximum capacity of SIG filler 2 producing 13,200l/hr and SIG filler 3 also producing 13,200l/hr.

Existing Emission Point

4.2.5. Princes has one emission point, designated as A1, associated with the operation of one natural gas fired boiler producing steam for process heating.

Environmental Permit Boundary and Emissions to Foul Sewer

4.2.6. The Environmental Permit boundary is shown in Schedule 4 – Amended Plan contained in Variation Notice EPR/BX8289IW/V003. The location of the sampling point and emission point to foul sewer, designated as S1, is shown on Drawing 13811 STR SA 92 0203. Both drawings are contained in Section 3 of this application submission.

4.2.7. Process effluent includes boiler blowdown, ingredient processing, cleaning in place ("CIP") system and from the packaging hall. The effluent discharged to sewer is in the region of 200m^3/day.

4.3. Proposed Activities

4.3.1. A process flow diagram outlining the operation and process is provided in Appendix III of this EPTR document.

Production Capacity

4.3.2. Princes propose the use of six pasteurisers which will supply a combination of six fillers from ten available fillers. As discussed above, the pasteurisers are the controlling factor on production capacity.

4.3.3. The breakdown of proposed fillers, pasteurisers and the maximum capacity of each filler line to calculate the total production capacity is provided in Table 3. The proposed maximum production capacity of the Installation following the variation will be 70,400l/hr.

Table 3: Proposed Maximum Production Capacity

Filler	Format	Pasteuriser Option	Container per Hour	Maximum Capacity (l/hr)
Filler 1	Ambient laminated board carton 500ml – 1.1 litre	1 or 2	12,000 cartons per hour ("cph")	13,200
Filler 2	Ambient laminated board carton 500ml – 1.1 litre	1	12,000cph	13,200
Filler 3	Ambient laminated board carton 500ml – 1.1 litre	2	12,000cph	13,200
Filler 4	Ambient laminated board carton 125ml – 250 ml	4	24,000cph	6,000
Filler 5	Ambient laminated board carton 125ml – 250 ml	1 or 3	24,000cph	6,000
Filler 6	Ambient laminated board carton 150ml – 350 ml	1 or 3	12,000cph	6,000
Filler 7 (Federal)	2 litre HDPE bottle 1 litre PET bottle 330ml PET bottle	6	9,000 bottle per hour ("bph") – 2 litre 12,000 bph – 1 litre	18,000
Filler 8 (Galdi)	Chill laminated board gable carton 1.75 litre – 2 litre	6	2400cph	2400

Table 3: Proposed Maximum Production Capacity (Cont.)

Filler	Format	Pasteuriser Option	Container per Hour	Maximum Capacity (l/hr)
Filler 9	Chill laminated board gable carton 500ml – 1 litre	1 or 5	14000cph	14000
Filler 10	Chill laminated board gable carton 500ml – 1 litre	6	14000cph	14000
Total Maximum Capacity (Filler lines highlighted in grey – 2, 3, 4, 5, 7 & 9 based on available pasteuriser and maximum production capability)				**70,400**

Proposed Emission Points

4.3.4. Thirteen new emission points designated as A2-A14 are proposed as part of this variation. This is discussed in detail in Section 5 below.

Environmental Permit Boundary and Emissions to Foul Sewer

4.3.5. Princes is proposing to expand the Environmental Permit boundary to relocate the S1 emission point. The new sampling chamber and S1 will be located away from the warehouse entrance and transportation vehicles entering and leaving the Installation to achieve logistical and health and safety improvements on site.

4.3.6. The proposed Environmental Permit boundary (green outline) is shown on the Site Location Plan (ECL.046.01.01) and the relocation of S1 and the sampling point is shown on Drawing 13811 STR SA 92 0203. Both drawings are contained in Section 3 of this application submission.

4.3.7. As a result of increased site capabilities, process effluent discharged to foul sewer via S1 is expected to increase. It is anticipated that the effluent will be in the region of 1,200m^3/day. This is discussed in detail in Section 5.6 and 8.7 of this EPTR document.

5. EMISSIONS

5.1. Point Source Emissions to Air – Current Arrangements

5.1.1. There is one emission point to air, designated as A1, associated with the operation of a natural gas fired boiler. The location of A1 is provided on Drawing 13811 STR SA 92 0203 which is contained in Section 3 of this application submission.

5.2. Point Source Emissions to Air – Proposed Arrangements

5.2.1. Princes is proposing to add one emission point, designated A2, associated with the installation of one new natural gas fired boiler. This will be in addition to the existing boiler and A1 emission point.

5.2.2. Detailed air quality modelling has been undertaken to predict the impacts associated with stack emissions from both the existing boiler and proposed boiler running simultaneously at the Installation.

5.2.3. The Air Dispersion Modelling Study (ECL.046.01.01/ADM), which is contained in Section 6 of this application, concluded that the emissions arising from the existing and the proposed boiler flue will not have a detrimental impact on local air quality, human health, sensitive habitat sites or the Air Quality Management Areas ("AQMAs") assessed.

5.2.4. There will also be six new emission points, designated as A3-A8, to vent steam produced during filling operations. Princes has confirmed that limited steam will be emitted from the emission points as the majority will condense and be collected by a water/steam trap. The small volume of condensate produced will be channelled to the foul water drainage system.

5.2.5. An additional six new emission points, designated as A9-A14, will be installed emitting H_2O_2 associated with the sterilisation of packaging. A H1 Assessment has been undertaken (ECL.046.01.01/H1) which is also contained in Section 6 of this application. The H1 demonstrated that the Environmental Assessment Level ("EAL") provided by NRW has not been exceeded for either the long-term or short-term process contributions calculated.

5.2.6. The locations of the existing and proposed emission points are shown Drawing 13811 STR SA 92 0203 contained in Section 3 of this application.

5.3. Point Source Emissions to Surface Water – Current Arrangements

5.3.1. There are no point source emissions to surface water. Only clean surface runoff is permitted to be discharged to the surface water drainage network.

5.4. Point Source Emissions to Surface Water – Proposed Arrangements

5.4.1. There will continue to be no point source emissions to surface water. Only clean surface runoff will be discharged to the surface water drainage network.

5.4.2. In order to comply with planning requirements, a Sustainable Drainage System ("SuDS") has been constructed which benefits from an attenuation tank and interceptor which is located within the site boundary but is not contained within the Environmental Permit boundary.

5.5. Point Source Emissions to Sewer – Current Arrangements

5.5.1. Process effluent from the site activities is discharged to foul sewer via emission point S1. This wastewater originates from the process, such as boiler blowdown, ingredient processing, CIP system and from the packaging hall.

5.5.2. The process effluent currently discharged to foul sewer is approximately 200m^3/day.

5.6. Point Source Emissions to Sewer – Proposed Arrangements

5.6.1. The new process plant has been designed to capture a large proportion of the process effluent from product flushing during CIP and end of production flushes. This wastewater will be redirected to a 30,000 litre wastewater tank on site which will be periodically tankered off site for anaerobic digestion. Consequently, this reduces the amount of process effluent being discharged to foul water.

5.6.2. It is anticipated that approximately 100,000 litres of wastewater via tankers will be removed from the Installation per week.

5.6.3. Following improvement works by the process plant equipment supplier, the following effluent will either be redirected to rework or to the dedicated waste tank:

- inter-batch flushing of premix tanks;
- any residual product in the rework tanks at the end of the production run; and
- any scrapped carton contents from the packing lines.

5.6.4. Once these improvements have been made, an accurate baseline will be established and if deemed necessary following systematic sampling and pH testing, Princes will design an effluent neutralisation system, including an appropriate buffer storage capacity for waste water to adjust the pH of the effluent prior to discharge to foul sewer.

5.6.5. Princes also propose to install an appropriate isolation system for the main trade effluent outflow from the Installation at S1 to ensure that in the unlikely event of a major spill on site, the spill will be contained within the site boundary and will not be discharged to foul sewer.

5.6.6. Trade effluent is expected to increase due to the increase in site capability and the number of production lines. It is anticipated that the effluent sent to sewer will be in the region of 1,200m^3/day.

5.7. Point Source Emissions to Land – Current Arrangements

5.7.1. There are no emissions to land.

5.8. Point Source Emissions to Land – Proposed Arrangements

5.8.1. There are no changes proposed as part of this variation application.

5.9. Fugitive Emissions to Air

5.9.1. The potential sources of fugitive emissions to air from the proposed operations include:

- uncontrolled releases during the operation of the natural gas fired boilers; and
- uncontrolled releases of H_2O_2 during packaging sterilisation.

5.9.2. The operation of the boilers will be in accordance with the manufacturer's instructions.

5.9.3. Servicing of the boilers and maintenance of the extraction systems and discharge points will be undertaken as part of the documented planned maintenance schedule or condition monitoring system which includes all plant and processing equipment. This will ensure optimal performance and to instigate any boiler tuning if deemed necessary.

5.9.4. Emissions monitoring will be undertaken in accordance with Environmental Permit and new Medium Combustion Plant Directive ("MCPD") requirements. This will ensure emissions from the proposed new boiler will be monitored, controlled and within the oxides of nitrogen Emission Limit Value ("ELV").

5.9.5. Maintenance of the extraction systems and discharge points related to the H_2O_2 releases will be undertaken as part of the documented planned maintenance schedule or condition monitoring system. This will ensure optimal performance.

5.9.6. The H1 calculation contained in Section 6 of this application has demonstrated that the EAL supplied by NRW has not been exceeded for either the long-term or short-term process contributions calculated.

5.10. Fugitive Emissions to Surface Water, Sewer and Groundwater

5.10.1. Fugitive releases to the groundwater will be prevented by conducting all operations in areas sealed with an impervious barrier to prevent a pathway for migration to ground and groundwater.

5.10.2. All potentially polluting liquids will be appropriately bunded providing a minimum capacity of either 110% of the capacity of the largest storage vessel or 25% of the total capacity of all the storage vessels within the bund, whichever is greater.

5.10.3. Due to site constraints and the size and number of fruit concentrate tanks, a bulk tank bund has been constructed with a capacity of 157m^3, therefore, providing 260% of the largest 60,000 litre tank holding fruit juice concentrate.

5.10.4. Princes is committing to installing an appropriate isolation system to prevent any uncontrolled releases to foul water.

5.10.5. Barriers and signage will be in place to prevent the risk of vehicle collision with storage vessels and bunding.

5.10.6. All plant and equipment will be subject to regular maintenance and servicing as per the Princes' maintenance regime contained in the QSHE management system. This will ensure they are in good working to reduce the likelihood of fuel leakage at the Installation.

5.10.7. Integrity testing of all storage vessels is undertaken by a qualified engineer annually to reduce the likelihood of tank failure or loss of containment. Any remediation action or repairs will be actioned immediately. If it is established that tank integrity is compromised, and cannot be repaired, new tanks will be purchased and installed.

5.10.8. Regular site inspections are undertaken to identify any evidence of spillages. Additionally, site infrastructure, including bunding and impermeable concrete surfacing is inspected. If remedial action is required, this will be reported immediately and repaired as soon as possible.

5.10.9. Any spillages at the Installation will be subject to the robust QHSE management system which includes a spill management procedure. This will prevent any potentially polluting materials from entering the Installation's drainage network.

5.10.10. All employees are suitably trained in all aspects of the QHSE management system including spill response, such as the deployment of absorbent mats and drain covers. Spill kits are strategically located and contents regularly inspected and maintained.

6. GENERAL REQUIREMENTS

6.1. Emissions Management

6.1.1. The ERA (Document Reference ECL.046.01.01/ERA) has demonstrated that emissions of substances not controlled by emission limits (i.e. fugitive emissions) are not considered to be significant, consequently, an Emissions Management Plan is not required as part of this application.

6.2. Odour Management

6.2.1. Production of fruit juice is not considered to be odorous in nature. Consequently, an Odour Management Plan is not required as part of this application.

6.3. Noise Management

6.3.1. The Installation is located within a predominantly industrial setting and the following measures will be in place:

- appropriate location of equipment - processing activities undertaken within the site buildings to achieve noise attenuation;
- regular inspection and maintenance of equipment to ensure good working order;
- operation of equipment by experienced personnel;
- closing of doors when not in use;
- avoidance of potentially noise emitting activities during night-time hours where possible;
- use of low noise equipment where possible, such as fans and pumps; and
- training of all staff and contractors to report any identified abnormal noise levels on site to enable the cause to be addressed immediately.

6.3.2. The ERA has demonstrated that noise emissions are not considered to be significant. Consequently, a Noise Management Plan is not required as part of this application.

6.4. Pest Management

6.4.1. Strict hygiene standards required for the preparation of drinks for human consumption. The Installation is kept immaculately clean with a regular cleaning and inspections programme undertaken.

6.4.2. Princes has implemented a pest management programme to minimise the risk of pests and subsequent contamination of products, raw materials or packaging. The pest management control measures are discussed in the ERA and include the following:

- a competent pest control company undertakes regular inspections and treatment to deter and eradicate any infestation;
- insect/fly-killing devices, pheromone traps and other insect monitoring devices are correctly sited and operational;

- bait stations or other rodent monitoring/control devices are appropriately located, secured and maintained;
- the site has adequate measures to prevent birds from entering buildings or roosting above loading/unloading areas;
- employees are also trained to understand the signs of pest activity and the need to report any evidence of pest activity to a designated manager;
- records of inspections, pest proofing, hygiene recommendations and actions taken are maintained. Identified actions are discussed in the weekly meeting and recorded on the Pest Control Actions log; and
- the pest management process is audited internally every three months with a six monthly review with the contractor and an in-depth, documented pest control survey is undertaken by the pest control expert annually or if the risk changes. R Results of pest control inspections are analysed for trends and additional trend reviews are undertaken if pests or evidence of pests are identified.

6.4.3. Through the implementation of the pest management programme, the overall risk is not considered to be significant.

6.5. Fire Management

6.5.1. As part of the QSHE Management System, the Princes Group Crisis Manual, MP21 Emergency Preparedness and Response plan and site Emergency Plan have been prepared and implemented to detail how to effectively manage and report incidents and potential emergency situations including fire. The fire risk management are detailed in the ERA and are summarised below:

- fire extinguisher and fire alarms are located in strategic locations throughout the Installation and are tested and maintained periodically;
- fire risk assessments are undertaken by the EHS Manager;
- allocation and training of Cardiff incident controllers and evacuation wardens;
- evacuation drills are undertaken to ensure all staff are aware of the emergency procedures;
- preventative maintenance on all equipment is undertaken to prevent any faults occurring;
- designated smoking areas are in place with smoking prohibited in all buildings; and
- firewater will be contained using bunds and booms and the firewater would then be tankered off site to an appropriately licenced Facility. Drain mats will be deployed to prevent any firewater from entering the drainage system.

7. APPLICATION SITE CONDITION REPORT

7.1. An updated Site Condition Report ("SCR") has been prepared to take account of the proposed additional land to be included in the Environmental Permit boundary resulting from the proposed relocation of S1 and the sampling chamber. The SCR is submitted in Section 7 of this variation application.

8. MONITORING

8.1. Monitoring of Emissions to Air – Current Arrangements

8.1.1. There is currently no requirement to undertake air emissions monitoring from the A1 emission point.

8.2. Monitoring of Emissions to Air – Proposed Arrangements

8.2.1. The new boiler will be classed as a new Medium Combustion Plants ("MCP") which is an engine fuelled on natural gas as the net rated thermal input is 4.02MWth. Consequently, it is anticipated that Princes will be required to monitor oxides of nitrogen (nitrogen oxide "NO" and nitrogen dioxide "NO_2") within 4 months of Environmental Permit issue and then every 3 years thereafter with a set limit of 95mg/m^3. Princes will also be required to monitor carbon monoxide ("CO") with no set limit.

8.2.2. The existing boiler is classed as an existing MCP which is an engine fuelled on natural gas as it possesses a net rated thermal input of 4.02MWth and was put into operation prior to 20th December 2018. Consequently, no monitoring will be undertaken until 2030 as required by MCPD.

8.3. Monitoring of Groundwater

8.3.1. Fugitive releases to the groundwater will be prevented by conducting all operations in areas sealed with an impervious barrier to prevent a pathway for migration to ground or groundwater. Consequently, no monitoring of groundwater is proposed.

8.4. Monitoring of Surface Water – Current Arrangements

8.4.1. There are no point source emissions (i.e. process contribution) to surface water. Only clean surface water runoff (rainwater) is discharged. Therefore, no monitoring of surface water is currently undertaken.

8.5. Monitoring of Surface Water – Proposed Arrangements

8.5.1. There will continue to be no point source emissions (i.e. process contribution) to surface water. Only clean surface water runoff (rainwater) will be discharged. Therefore, no monitoring of surface water is proposed.

8.6. Monitoring of Foul Water – Current Arrangements

8.6.1. The current S1 monitoring requirements contained in the Environmental Permit are reproduced in Table 4.

Table 4: S1 Monitoring Requirements

Emission Point	Substance or Parameter	Monitoring Frequency
S1	Effluent Flow	Continuous
	pH	Monthly
	Suspended Solids	Monthly
	Chemical Oxygen Demand	Monthly

8.6.2. The current Environmental Permit also contains limits for the emissions to sewer as detailed in Table 5 and 6. Compliance against the limits is calculated based on mass balance calculations of the caustic usage for cleaning.

Table 5: S1 Emissions Limits and Monitoring Frequency to Sewer

Emission Point	Substance or Parameter	Limit	Monitoring Frequency
S1	Mercury and its compounds as Hg	0.1µg/l	Annual
	Cadmium and its compounds as Cd	0.01mg/l	Annual

Table 6: S1 Emissions Limits and Monitoring Frequency to Sewer

Substance	Annual Limit -g
Mercury and its compounds as Hg	1.5
Cadmium and its compounds as Cd	0.5

8.6.3. Additionally, periodic monitoring is undertaken by Welsh Water to ensure Princes are adhering to their Trade Effluent Consent which is contained in Appendix IV.

8.7. Monitoring of Foul Water – Proposed Arrangements

8.7.1. As a result of the site expansion and increased production capacity, the associated effluent to foul sewer is anticipated to increase from 200m^3/day to 1,200m^3/day.

8.7.2. Using the mass balance calculations currently used to determine cadmium and mercury concentrations within the effluent resulting from the use of caustic during cleaning, it is anticipated that the annual emissions following the variation will be as follows:

- Cadmium – 0.000051mg/l; and
- Mercury – 0.01795 µg/l.

8.7.3. The annual limit in grams is expected to increase as follows:

- Cadmium – 2.25g; and
- Mercury – 7.86g.

8.7.4. The calculations to derive the anticipated cadmium and mercury concentrations are provided in Appendix V of this EPTR document. Once the proposed changes have been made at the Installation, the cadmium and mercury concentrations will be calculated based on actual caustic usage and effluent discharge volumes.

8.7.5. A H1 environmental risk assessment (ECL.046.01.01_H1 – S1) for the emissions to foul water has been undertaken which has concluded that both the anticipated cadmium and mercury emissions will be less than 100% of the Environmental Quality Standards ("EQS") and therefore, are not considered to be significant. The H1 assessment is provided in Section 6 of this application submission.

9. RESOURCE EFFICIENCY AND CLIMATE CHANGE

9.1. Energy Efficiency Measures

9.1.1. A number of energy efficiency measures will be implemented at the Installation, such as:

- ensuring regular inspection and maintenance of equipment and plant to achieve optimum efficiency;
- optimising operational planning to streamline equipment and plant use;
- all new lighting is energy efficient light-emitting diode ("LED");
- use of economisers on package steam boilers for increased efficiency;
- use of variable speed driver ("VSD") inverters for motor drive and pumps;
- two of the three air compressors possess VSD;
- mains cold water and cooling water pumps are VSD;
- dry air coolers will be used in the cooling water system;
- reducing boiler blowdown;
- proposed new boiler will have VSD feed pumps and burner combustion fan;
- employees will be trained in the importance of energy management and basic energy saving practices; and
- future plans to install solar panels if deemed feasible.

9.1.2. An energy efficiency plan will be maintained defining and detailing the calculation of specific energy consumption of the site operations. Energy consumption will be monitored and reviewed monthly and key performance indicators will be set annually with planned periodic improvement targets and related actions detailed. This will form part of the QSHE management system.

9.2. Energy Consumption

9.2.1. Princes has recorded an average annual energy consumption of 10,250.53MWh based on 2015-2019 performance data.

9.2.2. The estimated annual energy consumption related to the specific processes concerned during the production period (in the form of heat and electricity) is provided in Table 7.

Table 7: Anticipated Energy Consumption

Energy Source	Estimated Annual Quantity		Primary Energy[2]	CO_2 Released (tonnes)[3]
	kWh	MWh	MWh	
Gas for steam[1]	8,619,584	8,619.6	8,619.6	1,430.85
Electricity	14,330,352	14,330.4	34,392.96	5,709
Total	**22,949,936**	**22,950**	**43,012.56**	**7,139.85**

Note to Table:
[1] Princes calculation based on 80% boiler efficiency
[2] Conversion factor for delivered energy to primary = 2.4
[3] CO_2 conversion factors used from EA H1 Global Warming Potential Guidance Online – Electricity = 0.166 tonnes per MWh

9.3. Climate Change Agreement

9.3.1. Princes entered into a Climate Change Agreement ("CCA") on 10th May 2018. The CCA Underlying Agreement and Environment Agency ("EA") Letter confirming activation is provided in Appendix VI.

9.3.2. This CCA demonstrates Princes' commitment to reducing energy consumption and associated carbon dioxide ("CO_2) emissions.

9.4. Raw Material Justification

9.4.1. A breakdown of the raw material usage is provided in Appendix VII.

9.4.2. The proposed storage tanks are detailed in Table 8. The locations of the storage vessels are displayed on 13811 STR SA 92 0203 which is contained in Section 3 of this application submission.

Table 8: Proposed Storage Tanks

Vessel Name	Substance	Vessel Storage Volume (l)	Quantity	Volume (l)
Concentrate Silos	Fruit juice concentrate	60,000	6	360,000
Water Storage Tank	Water	60,000	1	60,000
Waste Tank (not raw material)	Process effluent	30,000	1	30,000
Bulk Caustic Tank	Caustic	18,000	1	18,000
CIP Tanks	Diluted caustic to 2% and recovered final rise water	15,000	4	60,000
		6,000	1	6,000
Glycol Header	Glycol	20,000	1	20,000

9.4.3. Princes' QHSE management system will include a procedure for the annual review of raw material usage and new developments in raw materials and for the implementation of any suitable ones with an improved environmental profile. Cleaning chemicals are carefully selected and quantities calculated based on strict hygiene and food safety requirements.

9.4.4. Princes use suitable refrigerants i.e. water, without ozone depletion potential and with a low global warming potential.

9.4.5. The proposed water consumption following the variation is anticipated to be in the region of 120m^3 per hour. In order to reduce water consumption and the volume of waste water discharged, the Installation will implement the following measures:

- water recycling or reuse e.g. during CIP, final rinse water is recovered for reuse in the pre-rinse tank;
- optimisation of water flow;

- optimisation of chemical dosing and water use in CIP; and
- optimised design of new equipment and process areas to facilitate cleaning.

9.5. Waste Minimisation

9.5.1. As part of the original design and expansion proposal, waste minimisation was considered.

9.5.2. The proposed lines run with preformed cartons as opposed to Tetrapak technology where the carton is formed in the filler. Operating with ready-made cartons means that in the event of line stoppages, cartons stay in the aseptic zone which greatly reduces card waste and improves on efficiency.

9.5.3. The new lines include built in equipment to ensure that the following Quality Assurance ("QA") is undertaken automatically:

- the correct card is used for the product in the carton;
- the correct cap is applied and also the correct colour cap is used;
- the cored codes are on the cartons;
- the product in the case matches the product in the carton; and
- cases are formed correctly.

9.5.4. All of the above will minimise risk of product waste and risk of product recall, therefore, aiding waste minimisation.

9.5.5. Unsafe products or substandard materials are emptied from labelled cartons on site, the contents (where safe to do so) are transferred to liquid waste tanks for collection to anaerobic digestion and the packaging is compacted for recycling.

9.5.6. Surplus customer-branded products are reprocessed where possible and permitted to do so to minimise wastage. Where permitted Princes may use the 'Company Shop' for sale of surplus stock. The last option is for the cartons to be emptied on site, the contents (where safe to do so) are transferred to liquid waste tanks for collection for anaerobic digestion and the packaging is compacted for recycling.

9.5.7. Following the installation of the new production lines, waste reporting within the first year will allow Princes to set a baseline against which improvement targets can be set as part of the QHSE management system.

10. COMPLIANCE WITH BAT CONCLUSIONS

10.1. Overview

10.1.1. It is considered that the techniques that will be in use at the Installation will constitute Best Available Techniques ("BAT") and will be appropriate and proportionate for the scale of the activities at the Installation and the risks that are posed to the environment by these activities.

10.1.2. The BAT Requirements for the Installation and proposed variation have been taken from the BREF for Food, Drink and Milk Industries (December 2019). These BAT conclusions apply without prejudice to other relevant legislation, such as food safety.

10.1.3. A demonstration of compliance with applicable BAT is provided in Tables 9 and 10.

Table 9: Food, Milk and Drink Industries BREF- General BAT Conclusions

BAT Ref No.	BAT Requirement	Section of Supporting Documents
Environmental Management System		
1	In order to improve the overall environmental performance, BAT is to elaborate and implement an environmental management system ("EMS") that incorporates all of the following features: i. commitment, leadership, and accountability of the management, including senior management, for the implementation of an effective EMS; ii. an analysis that includes the determination of the organisation's context, the identification of the needs and expectations of interested parties, the identification of characteristics of the installation that are associated with possible risks for the environment (or human health) as well as of the applicable legal requirements relating to the environment; iii. development of an environmental policy that includes the continuous improvement of the environmental performance of the installation; iv. establishing objectives and performance indicators in relation to significant environmental aspects, including safeguarding compliance with applicable legal requirements; v. planning and implementing the necessary procedures and actions (including corrective and preventive actions where needed), to achieve the environmental objectives and avoid environmental risks; vi. determination of structures, roles and responsibilities in relation to environmental aspects and objectives and provision of the financial and human resources needed; vii. ensuring the necessary competence and awareness of staff whose work may affect the environmental performance of the installation (e.g. by providing information and training); viii. internal and external communication; ix. fostering employee involvement in good environmental management practices; x. establishing and maintaining a management manual and written procedures to control activities with significant environmental impact as well as relevant records; xi. effective operational planning and process control; xii. implementation of appropriate maintenance programmes; xiii. emergency preparedness and response protocols, including the prevention and/or mitigation of the adverse (environmental) impacts of emergency situations; xiv. when (re)designing a (new) installation or a part thereof, consideration of its environmental impacts throughout its life, which includes construction, maintenance, operation and decommissioning;	EPTR - Section 3

Table 9: Food, Milk and Drink Industries BREF- General BAT Conclusions (Cont.)

BAT Ref No.	BAT Requirement	Section of Supporting Documents
Environmental Management System (Cont.)		
1	In order to improve the overall environmental performance, BAT is to elaborate and implement an environmental management system ("EMS") that incorporates all of the following features: xv. implementation of a monitoring and measurement programme, if necessary, information can be found in the Reference Report on Monitoring of Emissions to Air and Water from IED Installations; xvi. application of sectoral benchmarking on a regular basis; xvii. periodic independent (as far as practicable) internal auditing and periodic independent external auditing in order to assess the environmental performance and to determine whether or not the EMS conforms to planned arrangements and has been properly implemented and maintained; xviii. evaluation of causes of nonconformities, implementation of corrective actions in response to nonconformities, review of the effectiveness of corrective actions, and determination of whether similar nonconformities exist or could potentially occur; xix. periodic review, by senior management, of the EMS and its continuing suitability, adequacy and effectiveness; xx. following and taking into account the development of cleaner techniques. Specifically for the food, drink and milk sector, BAT is to also incorporate the following features in the EMS: i. noise management plan (see BAT 13); ii. odour management plan (see BAT 15); iii. inventory of water, energy and raw materials consumption as well as of waste water and waste gas streams (see BAT 2); iv. energy efficiency plan (see BAT 6a).	EPTR - Section 3
2	In order to increase resource efficiency and to reduce emissions, BAT is to establish, maintain and regularly review (including when a significant change occurs) an inventory of water, energy and raw materials consumption as well as of waste water and waste gas streams, as part of the environmental management system (see BAT 1), that incorporates all of the following features: i. information about the food, drink and milk production processes, including: a) simplified process flow sheets that show the origin of the emissions; b) descriptions of process-integrated techniques and waste water/waste gas treatment techniques to prevent or reduce emissions, including their performance. ii. information about water consumption and usage (e.g. flow diagrams and water mass balances), and identification of actions to reduce water consumption and waste water volume (see BAT 7).	EPTR - Section 3 & 9

Table 9: Food, Milk and Drink Industries BREF- General BAT Conclusions (Cont.)

BAT Ref No.	BAT Requirement	Section of Supporting Documents
Environmental Management System (Cont.)		
2	iii. information about the quantity and characteristics of the waste water streams, such as: a) average values and variability of flow, pH and temperature; b) average concentration and load values of relevant pollutants/parameters (e.g. TOC or COD, nitrogen species, phosphorus, chloride, conductivity) and their variability. iv. information about the characteristics of the waste gas streams, such as: a) average values and variability of flow and temperature; b) average concentration and load values of relevant pollutants/parameters (e.g. dust, TVOC, CO, NOX, SOX) and their variability; and c) presence of other substances that may affect the waste gas treatment system or plant safety (e.g. oxygen, water vapour, dust). v. information about energy consumption and usage, the quantity of raw materials used, as well as the quantity and characteristics of residues generated, and identification of actions for continuous improvement of resource efficiency (see for example BAT 6 and BAT 10). vi. identification and implementation of an appropriate monitoring strategy with the aim of increasing resource efficiency, taking into account energy, water and raw materials consumption. Monitoring can include direct measurements, calculations or recording with an appropriate frequency. The monitoring is broken down at the most appropriate level (e.g. at process or plant/installation level).	EPTR - Section 3 & 9
Monitoring		
3	For relevant emissions to water as identified by the inventory of waste water streams (see BAT 2), BAT is to monitor key process parameters (e.g. continuous monitoring of waste water flow, pH and temperature) at key locations (e.g. at the inlet and/or outlet of the pre-treatment, at the inlet to the final treatment, at the point where the emission leaves the installation).	EPTR – Section 8.6 & 8.7
4	BAT is to monitor emissions to water with at least the frequency given in the provided table and in accordance with EN standards. If EN standards are not available, BAT is to use ISO, national or other international standards that ensure the provision of data of an equivalent scientific quality.	n/a – no direct discharge to a receiving water body
5	BAT is to monitor channelled emissions to air with at least the frequency given and in accordance with EN standards.	EPTR - Section 8.1 & 8.2.

Table 9: Food, Milk and Drink Industries BREF- General BAT Conclusions (Cont.)

BAT Ref No.	BAT Requirement	Section of Supporting Documents
Energy Efficiency		
6	In order to increase energy efficiency, BAT is to use BAT 6a and appropriate combination of the common techniques listed in technique b. a) an energy efficiency plan, as part of the environmental management system (see BAT 1), entails defining and calculating the specific energy consumption of the activity (or activities), setting key performance indicators on an annual basis (for example for the specific energy consumption) and planning periodic improvement targets and related actions. The plan is adapted to the specificities of the installation. b) Use of common techniques such as: - burner regulation and control; - - cogeneration; - energy-efficient motors; - heat recovery with heat exchangers and/or heat pumps (including mechanical vapour recompression); - lighting; - minimising blowdown from the boiler; - optimising steam distribution systems; - preheating feed water (including the use of economisers); - process control systems; - reducing compressed air system leaks; - reducing heat losses by insulation; - variable speed drives; - multiple-effect evaporation; and - use of solar energy.	EPTR -Section 9.1.
Water Consumption and Waste Water Discharge		
7	In order to reduce water consumption and the volume of waste water discharged, BAT is to use BAT 7a and one or a combination of the techniques b to k given below. a) water recycling or reuse;	EPTR – Section 9.4

Table 9: Food, Milk and Drink Industries BREF- General BAT Conclusions (Cont.)

BAT Ref No.	BAT Requirement	Section of Supporting Documents
Water Consumption and Waste Water Discharge (Cont.)		
7	In order to reduce water consumption and the volume of waste water discharged, BAT is to use BAT 7a and one or a combination of the techniques b to k given below. b) optimisation of water flow; c) optimisation of water nozzles and hoses; d) segregation of water streams; e) dry cleaning; f) pigging system for pipes; g) high pressure cleaning; h) optimisation of chemical dosing and water use in cleaning in place ("CIP"); i) low pressure foam and/or gel cleaning; j) optimised design and construction of equipment and process areas; and k) cleaning of equipment as soon as possible.	EPTR – Section 9.4
Harmful Substances		
8	In order to prevent or reduce the use of harmful substances, e.g. in cleaning and disinfection, BAT is to use one or a combination of the techniques given below: a) proper selection of cleaning chemicals and/or disinfectants; b) reuse of cleaning chemicals in CIP; c) dry cleaning; d) optimised design and construction of equipment and process areas.	EPTR – Section 9.4
9	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 refrigerants without ozone depletion potential and with a low global warming potential. Suitable refrigerants include water, carbon dioxide or ammonia.	EPTR – Section 9.4
Resource Efficiency		
10	In order to increase resource efficiency, BAT is to use one or a combination of the techniques given below. a) anaerobic digestion;	EPTR – Section 5.6

Table 9: Food, Milk and Drink Industries BREF- General BAT Conclusions (Cont.)

BAT Ref No.	BAT Requirement	Section of Supporting Documents
Resource Efficiency (Cont.)		
10	In order to increase resource efficiency, BAT is to use one or a combination of the techniques given below. b) use of residues; c) separation of residues; d) recovery and reuse of residues from the pasteuriser; e) phosphorous recovery as struvite; f) use of waste water for land spreading;	EPTR – Section 5.6
Emissions to Water		
11	In order to prevent uncontrolled emissions to water, BAT is to provide an appropriate buffer storage capacity for waste water.	
12	In order to reduce emissions to water, BAT is to use an appropriate combination of the techniques given below. a) equalisation; b) neutralisation; c) physical separation; d) aerobic and anaerobic treatment; e) nitrification and denitrification; f) partial nitritation; g) phosphorous recovery as struvite; h) precipitation; i) enhanced biological phosphorous removal; j) coagulation and flocculation; k) sedimentation; l) filtration; m) flotation. BAT-associated emission levels (“BAT-AELS”) for direct emissions to a receiving water body are not applicable.	EPTR – Section 5.6.

Table 9: Food, Milk and Drink Industries BREF- General BAT Conclusions (Cont.)

BAT Ref No.	BAT Requirement	Section of Supporting Documents
Noise		
13	In order to prevent or, where that is not practicable, to reduce noise emissions, BAT is to set up, implement and regularly review a noise management plan, as part of the environmental management system (see BAT 1), that includes all of the following elements: • a protocol containing actions and timelines; • a protocol for conducting noise emissions monitoring; • a protocol for response to identified noise events, e.g. complaints; • a noise reduction programme designed to identify the source(s), to measure/estimate noise and vibration exposure, to characterise the contributions of the sources and to implement prevention and/or reduction measures. Only applicable to cases where a noise nuisance at sensitive receptors is expected and/or has been substantiated.	EPTR – Section 6.3. & Environmental Risk Assessment (ERA) ECL.046.01.01/ERA
14	In order to prevent or, where that is not practicable, to reduce noise emissions, BAT is to use one or a combination of the techniques given.	
Odour		
15	In order to prevent or, where that is not practicable, to reduce odour emissions, BAT is to set up, implement and regularly review an odour management plan, as part o the environmental management system (see BAT 1), that includes all the following elements: • a protocol containing actions and timelines; • a protocol for conducting odour monitoring. It may be complemented by measurement/estimation of odour exposure or estimation of odour impact; • a protocol for response to identified odour incidents, e.g. complaints; • an odour prevention and reduction programme designed to identify the source(s) to measure/estimate odour exposure, to characterise the contributions of the sources; and to implement prevention and/or reduction measures. Only applicable to cases where an odour nuisance at sensitive receptors is expected and/or has been substantiated.	EPTR – Section 6.2. & ERA ECL.046.01.01/ERA

Table 10: Food, Milk and Drink Industries BREF- BAT Conclusions for Soft Drinks and Nectar Juice made from Processed Fruit and Vegetables

BAT Ref No.	BAT Requirement	Section of Supporting Documents
Energy Efficiency		
33	In order to increase energy efficiency, BAT is to use an appropriate combination of the techniques specified in BAT 6 and of the techniques given below: • single pasteuriser for nectar/juice production – use of one pasteuriser for both the juice and the pulp instead of using two separate pasteurisers; • hydraulic sugar transportation – sugar is transported to the production process with water. As some of the sugar is already dissolved during transportation, less energy is needed in the process for dissolving sugar; and • energy-efficient homogeniser for nectar/juice production.	EPTR – Section 9.1
n/a	Indicative environmental performance level for specific energy consumption (yearly average) is 0.01-0.035MWh/hl	43,012.56MWh/yr final energy consumption/6,167,040hl activity rate = 0.0069MWh/hl
Water Consumption and Waste Water Discharge		
n/a	Indicative environmental performance level for specific waste water discharge (yearly average) is 0.08-0.20m^3/hl	438,000m^3/year effluent/6,167,040hl activity rate = 0.07m^3/hl

APPENDIX I
ISO 14001 CERTIFICATE

Lloyd's Register

Current issue date:	28 January 2021	Original approval(s):
Expiry date:	27 January 2024	ISO 14001 - 28 January 2021
Certificate identity number:	10331511	

Certificate of Approval

This is to certify that the Management System of:

Princes Limited

Portmanmoor Road, East Moors, Cardiff, CF24 5HB, United Kingdom

has been approved by Lloyd's Register to the following standards:

ISO 14001:2015

Approval number(s): ISO 14001 – 00029074-004

This certificate forms part of the approval identified by approval number: 00029074

The scope of this approval is applicable to:

Manufacture, packing and distribution of a range of soft drinks, edible oils, canned and pouched fish, fruit and vegetables
.

David Derrick

Area Operations Manager UK & Ireland

Issued by: Lloyd's Register Quality Assurance Limited

UKAS MANAGEMENT SYSTEMS
001

APPENDIX II
QSHE MANUAL

ECL Ref: ECL.046.01.01/EPTR
February 2021
Version: Issue 1

Princes Cardiff

Quality, Safety, Health and Environment

Manual

Authorised By: Stuart Atkinson – Site General Manager

Contents

i) Structure of Manual

This manual has been prepared to define Princes Cardiff Site Management Systems for Quality, Health, Safety and Environment.

The initial sections of the manual (section i-iii) provide an introduction to the company and the manual. The following sections defines the way in which the Quality System meets the requirements specified in the BRC Global Food Safety Standard, CLAS Standard, the way the Environmental System meets the requirements specified in ISO14001:2015 and the way the Health & Safety System meets the requirements as specified in ISO 45001 / OHSAS 18001:2007. Reference is made to relevant management procedures and policies. It also shows the interaction with other sites within the group and centralised functions based in Liverpool Head Office.

Section 1.2 details the reporting structures and key responsibilities with regard to the site management systems.

ii) Background

Princes Limited process and pack a large range of foodstuffs such as fruit juice, dilute to taste soft drinks, carbonated drinks, water based drinks, oils, tuna, canned fruit & vegetables, pastes and sauces, under its brand names and for multiple retail outlets under their own labels. The Cardiff site packages fruit juice and fruit juice drinks into ambient laminated board cartons.

The manufacturing sites employ over 1000 full time employees across several manufacturing sites based at; Bradford, Cardiff, Glasgow, Manchester, Eden Valley, Wisbech, Long Sutton, Chichester and Mauritius. The Head Office of Princes Limited is situated in the Royal Liver Building in Liverpool. Princes are a subsidiary of Mitsubishi. The Soft Drinks specification team and New Product Development Team are based at the Bradford manufacturing site.

iii) Scope

The scope of the management systems outlined within this manual covers the processing and packaging of fruit juice and juice drinks at the Cardiff site. This manual includes and covers the requirements of BRC, ISO14001, ISO45001 / OHSAS18001, CLAS, Environmental Permit from Natural Resources Wales, discharge consent & MCERTS effluent monitoring.

The site determines the boundaries and applicability of the management system to establish the scope as documented in SHE09.

Centralised departments at Head office and Bradford have responsibility for distribution, purchasing, new product development including raw material ingredient and primary packaging supplier approval, training, disaster recovery and recall on behalf of the Cardiff site. Princes Limited Technical Department is located at the Liverpool Head Office, on-site Technical and Quality functions report to the Drinks Technical Controller based in Liverpool.

The Cardiff site microbiological laboratory is CLAS accredited including M&S requirements and the scope is detection of yeasts & moulds.

All design & development is carried out within the Bradford Site.

iv) Management System

The QSHEM serves to formalise the policies, procedures and operating standards that apply to the company's employees, contractors and suppliers. The company determines the internal and external issues that are relevant to its purpose and strategic direction, and that affect its ability to achieve the intended results of the QSHEM. This section of the manual defines the site policies and standards and how these relate to the management procedures and to BRC, ISO 14001:2015, ISO 45001 / OHSAS 18001:2007, CLAS, Environmental Permit from Natural Resources Wales, discharge consent & MCERTS effluent monitoring.

The Princes Board of Directors annually reviews the Group Environment, Health and Safety Policy generated by the Group EHS Manager and the Group Food Safety and Quality Policy generated by the Technical Director.

A site Quality, Safety, Health and Environment Policy has been defined, documented and authorised by the General Manager and is P0 Site Quality, Safety, Health and Environment Policy. Group policies are also considered by the General Manager in formulating the site policy and incorporated into this manual and the management system controlled documents. Any changed to these policies shall be considered by the General Manager and changes included in the site policy as necessary. The Group policies and site policy shall be displayed on site; in the reception area. The site policy shall be communicated to all employees annually & following change and shall be available for all visitors and contractors.

In signing the Group policies, top management has verified that it is appropriate to the nature and scale of the operations carried out in the Cardiff factory.

The context of the organisation is understood through following SHE 07 (SOP for Understanding the Organisation and its Context) ensuring consideration is given to the following that could relate to the organization's purpose and its ability to achieve intended outcome(s) of it OH&S management system:

1. Positive and negative factors or conditions.
2. External context and issues, such as legal, regulatory, technological, competitive, cultural, social, political and economic environments.
3. Internal context and issues, such as values, culture, organisational structure, knowledge and performance of the business.
4. Determination of the needs and expectations of interested parties.
5. Authority and ability to exercise control and influence.
6. Activities relevant to the business.

Documented information is retained as evidence to support that the context of the organisation has been taken into account in the QSHEM. The context is also reviewed when any relevant change occurs as per the change management procedure MAN12.

Stakeholders and interested parties are identified through following SHE 06.

1 Senior Management Commitment

1.1 Senior Management Commitment and Continual Improvement

Princes' Directors and site's senior management demonstrate they are fully committed to the implementation of the requirements of this Management system to meet required standards and to processes which facilitate continual improvement of food safety and quality management, Health, Safety & Environment through annual review of the Group policies and ensuring correct resources (human & financial).

Top management demonstrate leadership and commitment with respect to Health & Safety by:

- Taking overall responsibility & accountability for the prevention of work-related injury and ill health, as well as the provision of safe and healthy workplaces and activities;
- Ensuring that the QSHEM policy and related objectives are established and are compatible with the strategic direction of the organisation;
- Ensuring the integration of the management system requirements into the organisation's business processes;
- Ensuring that the resources needed to establish, implement, maintain and improve the management system are available:
- Communicating the importance of effective management and of conforming to the management system requirements;
- Ensuring that the management system achieves its intended outcome(s);
- Directing and supporting persons to contribute to the effectiveness of the management system;
- Ensuring and promoting continual improvement;
- Supporting other relevant management roles to demonstrate their leadership as it applies to their areas of responsibility;
- Developing , leading and promoting culture in the organisation that supports the intended outcomes of the management system;
- Protecting workers from reprisals when reporting incidents, hazards, risks and opportunities;
- Ensuring the organisation establishes and implements a process(es) for consultation and participation of workers;
- Supporting the establishment and functioning of worker participation committees

1.1.1	The site policy is documented (P0 – Quality, Environment, Health & Safety policy) and states the site's intention is to meet its legal obligation produce safe and legal products to the specified quality and its responsibility to its customers. This is: • Signed by the site General Manager, and • Briefed out to all employees on re-issue and at least annually.
1.1.2	The site's senior management team defines and maintains a clear plan for the development and continuing improvement of leadership and commitment for a legally compliant food safety culture through different methods including training, key performance indicators and regular communications. The methods ensure that: • There are defined activities for all roles & tasks that have an impact on legal compliance and product safety • The action log indicates what activities are required, what the non-conformance, issue or improvement is to be met and the intended timescale. • Completed action effectiveness is removed monthly as part of the management monthly meeting. • Compliance with Mitsubishi Core Principles and Princes Cardiff Values.
1.1.3	The General Manager ensures that clear objectives are defined to maintain and improve the Site Health and Safety, Environment controls, safety, legality and quality of products manufactured, in accordance with the QSHE policy and certification standards (MP18). These objectives are summarised in form reference F65 including targets / clear measures of success and incorporated into site TIPs (Tactical Implementation Plans) and the MWBP (Must Win Battle Plan). Objectives and targets are set at the beginning of each fiscal year and are based on company requirements with a view to continual improvement of site QSHEM performance. Plans are developed with the objectives and targets detailing the improvements needed to achieve the objectives and are incorporated into the factory plan as appropriate. Objectives are clearly communicated to relevant staff during monthly meetings and appraisals. They are monitored and results reported at least quarterly through monthly meetings reviewing TIPs & MWBP. The Manufacturing Director, Technical Director and Group EHS Manager are aware of relevant long term business plans. If there are any issues/plans relevant to Cardiff site they will be communicated to the site General Manager who shall determine the capability of achievement of these plans.
1.1.4	Management review meetings (MP15) attended by the site's senior management are undertaken annually, to review the site performance against the Standards and objectives set in 1.1.3. The review process minute format & agenda are in form F294 and includes the evaluation of: • previous management review action plans, time frames, targets and objectives achieved. • performance data • all elements of the QSHEM • results of internal, second party and/or third party audits • customer complaints, the results of any customer performance reviews, needs, expectations of interested parties including compliance obligations. • incidents (including recalls and withdrawals if applicable), corrective actions, out of specification results and non-conforming materials • review and effectiveness of the management systems for HACCP, food defence, authenticity, environmental

	aspects and health and safety risks. • Injury, illness, incident and hazard statistics, insurance claims • Environmental performance • resource requirements and opportunities for continual improvement. • continuing suitability and effectiveness of the site integrated management system (QSHEM). • changes in external and internal issues relevant to the site integrated management system (QSHEM). • the significant environmental aspects, health and safety risks, including risks and opportunities and related decisions to continual improvement. • conclusions and actions if needed on the continuing suitability, adequacy and effectiveness of the integrated management system (QSHEM). . • any implications for the strategic direction. • Effectiveness of employee involvement activities Records of the meetings are documented and used to revise the objectives. The decisions and actions agreed within the review process are communicated to appropriate staff, and action implementation monitored to drive completion within the agreed time scale. (F22)
1.1.5	The site has a meeting programme (F289) which enables issues relating to food safety, legality, integrity, quality, environmental and health and safety can be brought to the attention of senior management at least monthly. (To enable matters to be raised daily there is a weekday 09:30 meeting in place for issues within the previous 24 hours and next 24 hours.) Employees receive annual refresher training which re-enforces induction training to report any evidence of unsafe or out-of-specification product or raw materials to their line manager, Shift Coordinator or Technical Manager allowing resolution of issues requiring immediate action. Annual refresher training includes key environmental, health and safety core subject matters. Specific leadership training is given to fulfil the companies obligations for leadership, commitment and continual improvement.
1.1.6	Princes have a confidential reporting system to enable staff to report concerns relating to product safety, integrity, quality, legality, environmental matters and health and safety. The mechanism for reporting concerns is communicated to staff during induction, annual refresher and displayed on site notice board. Princes' senior management assesses concerns raised documenting the assessment and where applicable the actions taken.
1.1.7	The directors and site senior management will assess the human and financial resources required to produce food safely and the legal requirements in compliance with the requirements of this manual during review of the objectives and targets at the management review.
1.1.8	The site is kept informed by external sources i.e. BSDA, RSSL, Campden, Food News, Eurofins , IEMA, HSE, NRW, Barbour Services and reviews the following to ensure site practices and documents are kept up to date: • scientific and technical developments, • industry codes of practice • new risks to authenticity of raw materials • all relevant legislation applicable in the country of raw material supply, production and, where known, the country where the product will be sold.
1.1.9	The site has an electronic version of the current BRC Standard available and the Technical Controller will brief the site on any changes to the BRC Standard or protocol that are published on the BRC website.
1.1.10	The BRC audits 2016 onwards will be unannounced as per the COOP requirement. From 2019 onwards BRC audit will include Asda bolt on module and in the event of certification being lost relevant customers will be informed i.e. Asda
1.1.11	The most senior production or operations manager on site will attend the opening and closing meetings of the audit for Global Standard for Food Safety BRC certification. Relevant departmental managers or their deputies will be available as required during the audit process.
1.1.12	Non-conformances raised during the external audits follow MP 13 with F22 completed that requires the root causes of non-conformities to be identified and effectively addressed to prevent recurrence. The Technical Manager will facilitate the process and track Managers progress and completion of actions which are summarised on F46 QSHEM work list.
1.1.13	The Princes Cardiff site, do not use the BRC Global Standards logo.
1.1.14	Leadership and commitment of the Princes Cardiff Management team is outlined within the Mitsubishi core principles & Princes values. 

1.2 Organisational Structure, Responsibilities and Management Authority

1.2.1	Figure 1 shows the company organisation chart demonstrating the management structure of the site and links to Head Office. The responsibilities (Figure 3) for the management of activities which ensure food safety, integrity, legality, quality, environment, health and safety are clearly allocated and understood by the managers responsible through summary in this QSHEM and detailed in the job description. Deputies are clearly defined (Figure 2).
1.2.2	The site's senior management ensure that all employees are aware of their responsibilities through job description review, briefing, appraisals and training. Documented work instructions are available through the shared drive or as controlled hard copies. Employee competence is checked to ensure trained employees are competent in completing the work in accordance with the instructions.

Figure 1. Organisation Chart

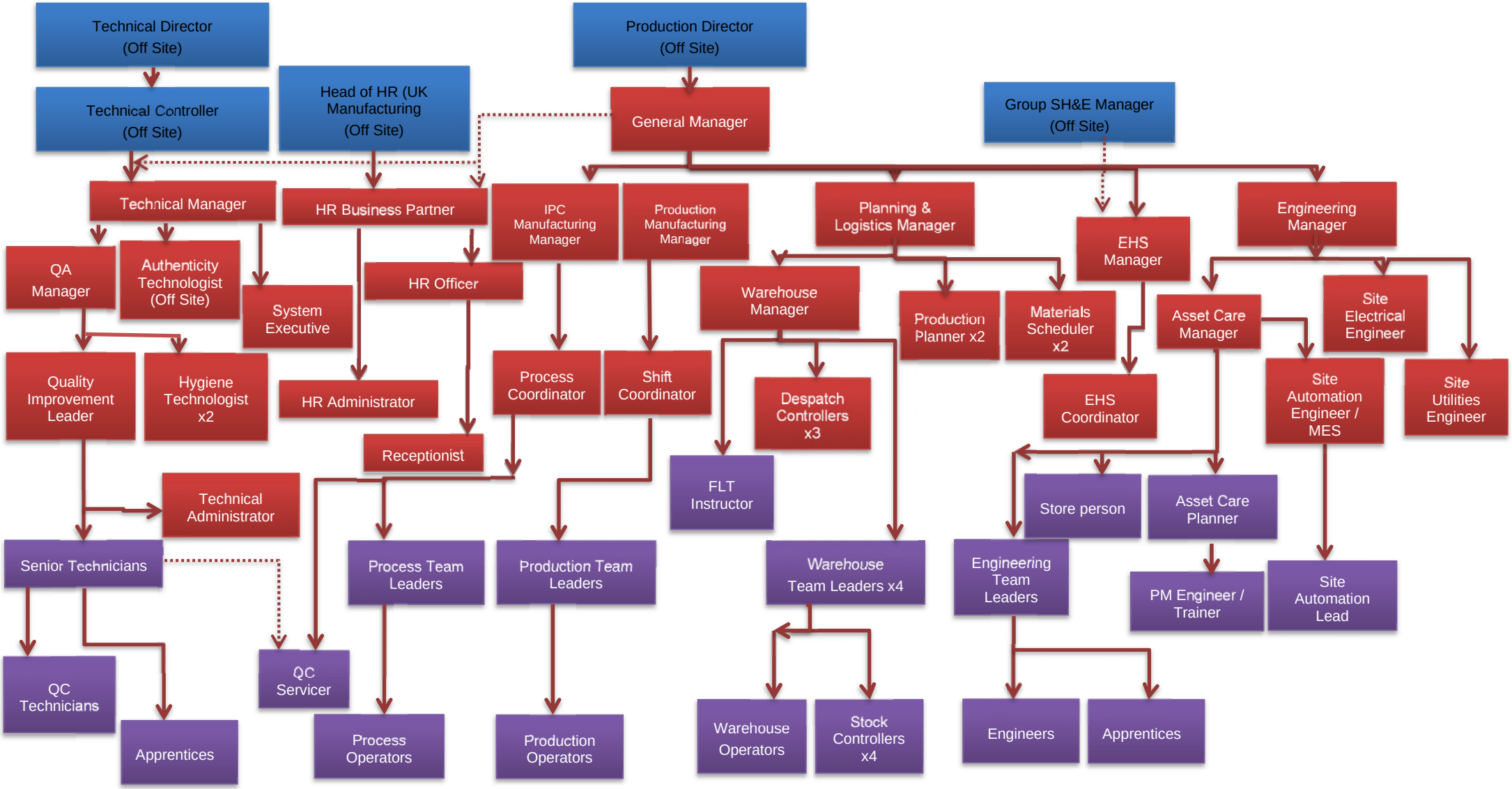

Figure 2. Deputies

During periods of absence from site the responsibilities of key personnel will be performed by the following deputies:-

Role:	**Deputy:**
General Manager	Operations Manager with reference to the Manufacturing Director as necessary.
IPC Manufacturing Manager	Process Coordinator
Process Coordinator	IPC Manufacturing Manager / Appointed Team Leader
Production Manufacturing Manager	Shift Coordinator
Shift Coordinator	Appointed Team Leader
Team Leader (Process, Production, Warehouse)	Alternative Team Leader (same area) / Appointed Operator
Operator (Process, Production, Warehouse)	Alternative Operator (same area)
Health, Safety & Environment Manager	EHS Coordinator with reference to General Manager & group EHS Manager as necessary. (MCERTS – Engineering Manager)
EHS Coordinator	Health, Safety & Environment Manager
Technical Manager	QA Manager
QA Manager	Technical Manager / Quality Improvement Leader
Quality Improvement Leader	QA Manager / Hygiene Technologist as necessary
Hygiene Technologist	Alternative Hygiene Technologist, trained Senior Quality Control Technician or trained apprentice
Authenticity Technologist	Currently at Manchester site
Systems Executive	Technical Manager / Quality Improvement Leader
Technical Administrator	Quality Improvement Leader or Trained Technician
Senior Quality Control Technician	Alternative Senior QC Technician or Quality Control Technician with reference to Q.I.L.
Quality Control Technician	Alternative Quality QC Technician, Senior QC Technician, QC Servicer or trained apprentice
QC Servicer	Appointed trained Technologist or Process Operator
Technical Apprentice	N/A
Engineering Manager	Asset Care Manager
Asset Care Manager	Engineering Manager / Site Utilities Engineer
Site Utilities Engineer	Asset Care Manager
Site Electrical Engineer	Asset Care Manager
Site Automation Engineer / MES	Site Automation Lead
Site Automation Lead	Site Automation Engineer / MES
Asset Care Planner	Asset Care Manager
Preventative Maintenance Engineer / Trainer	Asset Care Planner
Engineering Team Leader	Appointed Engineer
Engineer	Alternative Engineer / Engineering Team Leader
Engineering Apprentice	N/A
Store person	Appointed Engineer or Asset Care Manager
Planning and Logistics Manager	Materials Scheduler and/or Planner as necessary
Warehouse Manager	Planning and Logistics Manager / Despatch Controller as necessary.
Materials Scheduler	Alternative Materials Scheduler
Planner	Alternative Planner
Despatch Controller	Alternative Despatch Controller / Warehouse Manager
Stock Controllers	Alternative Stock Controller / Warehouse operator
FLT Instructor	Suitably trained Operator or Warehouse Manager to out-source
HR Business Partner	Head of HR (UK Manufacturing) and HR Officer
HR Officer	HR Business Partner and HR Admin.
HR Admin	HR Officer and Receptionist
Receptionist	HR Admin

Figure 3. Responsibilities (ISO14001:2015 Clause 5.3, OHSAS 18001:2015 4.4.1, BRC 1.2.1)

The following outlines the key responsibilities and decision making authority. In the absence of the designated deputy then immediate reports shall have responsibility for carrying out these duties.

Description	General Manager	EHS Manager	Technical Manager	IPC Manufacturing Manager	Packaging Manufacturing Manager	Engineering Manager	Warehouse Manager	Planning & Logistics Manager	HR Business Partner	All employees
Adequate resource to meet departmental & site management systems requirement	A	R	R	R	R	R	R	R	R	C
Management of GMP Policy	R	R	A	R	R	R	R	R	C	R
Annual Management Reviews	A	R	R	R	R	R	R	R	R	C
Autonomous Maintenance System Management	A	C	C	R	R	C	R	C	I	C
Brand Integrity	A	C	R	R	R	R	R	R	R	R
Change Control Management System	A	R	R	C	C	C	C	C	C	C
Completion of corrective actions from External Audits	A	R	R	R	R	R	R	R	R	C
Completion of corrective actions from Internal Audits	A	R	R	R	R	R	R	R	R	R
Contractor Control	A	C	C	C	C	R	C	C	I	C
System of COSHH control	A	R	C	C	C	R	C	C	C	C
Definition of QSHEM Policy	A	R	R	C	C	C	C	C	C	I
Deviation Reporting from Management Systems	A	R	R	R	R	R	R	R	R	R
Disposition of nonconforming finished product or raw materials	R	I	A	C	C	I	R	C	I	I
EHS Management Representative	A	R	I	I	I	I	I	I	I	I
Management of EHS Management System	A	R	C	C	C	C	C	C	C	I
Employee Competency Assessment	A	R	R	R	R	R	R	R	R	C
WAGES Monitoring & management	A	R	C	R	C	R	C	C	I	C
Ensuring adequate internal audit resource	A	R	R	R	R	R	R	R	R	C
Establishing objectives and targets	A	R	R	R	R	R	C	R	R	C
External Calibrations (Manager relevant to department/equipment identified)	A	R	R	C	C	R	C	C	I	I
H&S Committee	A	R	C	C	C	C	C	C	C	C
Identification of out of specification products / materials	A	R	R	R	R	R	R	R	I	R
Identification of significant environmental effects	A	R	C	C	C	C	C	C	C	C
Internal Audit Schedule Maintained	A	R	R	C	C	C	C	C	C	I
Job Descriptions & Annual Review Process	A	C	C	C	C	C	C	C	R	I
KPI data collection	A	R	R	R	R	R	R	R	R	R
Legal Compliance	A	R	R	R	R	R	R	R	R	R
Liasing with statory bodies / external agencies	A	R	R	R	R	R	C	C	R	C
Management representative for Quality Management system	A	I	R	I	I	I	I	I	I	I
MCERTS management system	A	C	C	I	I	R	I	I	I	I
Microbiological testing schedule	A	I	R	I	I	I	I	I	I	I
CLAS Compliance	A	I	R	I	I	I	I	I	I	I
Payroll	A	C	C	C	C	C	C	C	R	I
Personnel Safety & safety of others	A	R	R	R	R	R	R	R	R	R
Pest Control	A	C	R	C	C	C	C	C	C	C
Reliability Centred Maintenance (PPM)	A	C	C	C	C	R	C	C	I	I
Product Traceability	A	R	R	R	R	R	R	R	R	R
Production Planning / scheduling (Rmats & Ing)	A	C	C	C	C	C	C	R	I	I
Quality Management System	A	C	R	C	C	C	C	C	C	I
Recruitment	A	C	C	C	C	C	C	C	R	I
Relevant Food Safety legislation is known & register in place	A	C	R	I	I	I	I	I	I	I
Relevant Health & Safety legislation is known & register in place	A	R	C	I	I	I	I	I	I	I
Reporting accidents, incidents & near misses	A	R	R	R	R	R	R	R	R	R
Reporting EHS regulartory returns	A	R	C	I	I	I	I	I	I	I
Risk assessments system management	A	R	C	C	C	C	C	C	C	I
Safe systems of work are followed	A	R	R	R	R	R	R	R	R	R
Safe systems of work are in place	A	R	C	C	C	C	C	C	C	I
Shelf-life testing	A	I	R	C	C	C	C	C	I	I
Succession planning sytem management	A	C	C	C	C	C	C	C	R	I
Scheduling & completion of Training (against SOPs & OPLs)	A	R	R	R	R	R	R	R	R	C
Waste Contractor Management	A	R	C	C	C	C	C	C	I	C
Legionella Management	A	C	C	I	I	R	I	I	I	I

Key:

R	Responsible
A	Accountable
C	Consulted
I	Informed

JOB ROLE	KEY RESPONSIBILITIES
Chief Executive	The Chief Executive (based at Liverpool Head Office) is responsible for ensuring that group policies are implemented.
Group Directors	The Group Directors (based at Liverpool Head Office) have responsibility for communicating plans to aid the site in Quality Planning. They also have responsibility for ensuring that group policies are extended into more detailed arrangements. The Production Director also has overall responsibility for ensuring that adequate resources are made available for site purpose & compliance.
Group EHS Manager	The Group Safety, Health and Environmental Manager is responsible for communicating corporate policy regarding Environmental, Health and Safety requirements. The Group EHS Manager shall also communicate to the EHS Manager any relevant new, or changes to, existing regulations.
Factory General Manager	The General Manager has overall responsibility for all on site processes apart from the Technical function and the disposition of nonconforming finished product or raw material.
EHS Manager	The Environment, Health and Safety Manager is the appointed site Environment, Health & Safety management representative and is responsible for: • submitting required reports to the regulator or other applicable legal bodies. • ensuring that operations are in compliance with applicable legal, certification, customer and company requirements • Delivering training to targeted employees and maintaining records of all H&S training • Analysing, reporting & reviewing H&S performance data • Liaising as required with outside agencies on all EH&S matters i.e. HSE, Police, Fire Brigade, insurance companies, auditors and customer. • understanding MCERTS & arranging the management system audit at the required frequency The EHS Manager maintains the appropriate records which demonstrate site compliance with the EHS system requirements
Technical Manager	The Technical Manager shall ensure that the site quality system is accurate & will report any non-conformances or shortfalls in the systems also advising on changes if necessary. The Technical Manager is responsible for ensuring that there is adequate technical resource to allow satisfactory audit and observation of the quality system; for providing data for management review and for ensuring brand integrity, standards and specifications are available within the site management systems. The Technical Manager is the management representative for the Quality Management System and will liaise with customers & other bodies on quality related issues.
QA Manager	The QA Manager is the Technical Manager's deputy and is responsible for supporting the compliance of the site (food safety, quality & integrity) and the managing of the Technical Department as required by the business e.g. during the site's transformational programme.
Quality Improvement Leader	The QIL is responsible for ensuring that laboratory records are reviewed and that any corrective actions are completed and that equipment used is suitable and within calibration. The QIL is responsible for monitoring the traceability of raw materials and ingredients and collation of inspection tests. The QIL is responsible for monitoring the nonconforming goods procedure, disposition of held stock and administration of the consumer complaints procedure. Pest control is to be carried out by an external contractor (member of BPCA) and the QIL will act as site contact, will monitor adherence to contract / customer specifications or requirements and organise site actions to be completed by relevant departments.
Hygiene Technologist	The Hygiene Technologist is responsible for carrying out microbiological testing, documenting the results and initiating corrective action where required. Through testing and investigation the Hygiene Technologist shall ensure that cleaning schedules and procedures are adequate. The Hygiene Technologist shall also be responsible for the effluent sampling activities for the Engineering Manager, accompanying Welsh Water during their unannounced effluent sampling.
Engineering Manager	The Engineering Manager is responsible for ensuring that external calibrations are carried out as required, that adequate engineering resource is available, that routine servicing is carried out and that engineering down time is recorded. The Engineering Manager is responsible for ensuring that sub-contractors are aware of site policies and procedures, for ensuring that any Engineering waste is disposed of correctly and for monitoring energy usage and taking necessary action in emergency situations. The Engineering Manager is responsible for ensuring that equipment is kept in a serviceable state. The Engineering Manager is responsible for ensuring that Engineering records are reviewed and that any corrective actions are completed and that equipment used is suitable. The Engineering Manager is responsible for monitoring the preventive & planned maintenance schedules, spares and parts availability. Also for ensuring that the effluent flow measurement equipment, sampling equipment and fabric are maintained as per the maintenance schedule and the unit is calibrated annually and inspected every 5 years by a recognised

	MCERTS inspector.
JOB ROLE	**KEY RESPONSIBILITIES**
HR Business Partner	The HR Business Partner is responsible for leading the HR aspect of organisation change initiatives to ensure significant operational expenditure targets are met. Supporting the Group HR function in the successful delivery of innovative, customer focused and cost-effective HR solutions. Developing strong working relationships with senior managers in order to understand key performance issues and associated people requirements in order to meet both current and future organisational challenges and business needs. In collaboration with Group HR Team implement the HR strategy employee development, employee engagement and employee reward and recognition. Implement talent and succession planning initiatives at site level. Instil job performance and competency framework culture that exhibits the company's vision and objective
HR Officer	The H.R. Officer is responsible for ensuring all new staff (permanent and temporary) are given induction training, made aware of basic food handling requirements and that the company's policies are explained and understood. The H.R. Officer and must also audit the agency temporary labour provider twice a year and maintain records of the audits. The H.R. Officer is responsible for managing HR casework for the site providing employment law advice and guidance, supporting and coaching line managers to deal with absence, performance, capability and disciplinary issues. Recruitment activities supporting shortlisting, interviewing, on-boarding. Job descriptions are to be held for all positions on site and reviewed annually
Management Accountant	The Management Accountant (based at the Liverpool Site) is responsible for providing cost data, which can be used to review the cost effectiveness of site management systems.
All Employees	All levels of employee have a personal and legal responsibility for their own safety and that of others. They are also responsible for following relevant instructions as detailed in the documented management systems, for highlighting any area where corrective action is necessary; behaving in a responsible manner to maintain product & brand integrity, avoid impact to the environment and for adhering to the personal hygiene policy. All employees are expected to understand the importance of their role in producing a safe quality product and to comply with the Princes values; professional, respect, integrity, nurturing, commercial, excellence, sustainable. All employees are responsible for: • familiarizing themselves with and complying with the EH&S policy • co-operating with management in all matters concerning EH&S • behaving responsibly such that their acts or omissions do not compromise the safety of themselves or others or adversely affect the environment • working in accordance with any EH&S instruction and training provided; not undertaking any task for which they are not authorized or trained • bring to the attention of their Team leader / Manager any hazardous situations or perceived shortcomings in the EH&S arrangements • promptly reporting all accidents, incidents and near misses • attend all require required training At all levels of the organization, employees will be held accountable for the occupational health & safety of those they manage, themselves and others with whom they work.
All Managers	All Managers are responsible for: • holding individual employees accountable for working in a safe and environmentally acceptable manner • ensuring employees who repeatedly violate EH&S requirements and disregard the health & safety of themselves and others are taken through the disciplinary process up to and including termination of employment based on the findings of suitable investigation findings as per the disciplinary procedure • implementing the QSHEM policy and bringing it to the attention of all employees • complying with safety precautions and procedures • ensuring that all necessary risk assessments and inspections are performed at the required frequency • ensuring that all reported accidents incidents and near misses are investigated appropriately with the required completion of documented records • ensuring that any actions resulting from audits, inspections, assessments and investigations are completed in a timely manner • ensuring that all relevant safety documents, e.g. risk assessments and material safety sheets (MSDS) are available for consultation • consulting with employees on proposed changes • ensuring the proper induction of all new colleagues which will include an awareness of relevant precautions, procedures and requirements for the site and area of work • ensuring appropriate information, instruction, training and supervision is provided to all individuals within the department or site area (employee, visitor, contractor) • ensuring that all employees are aware of the location of fire-fighting equipment and alarm call points and are conversant with their appropriate usage • ensuring that the appropriate cover of evacuation wardens and first aiders is provided • ensuring good standards of housekeeping

	• ensuring that any responsibilities delegated to employees are clearly identified • ensuring that all contractors and visitors are adequately supervised.

1.3 Legal and Other Requirements

1.3.1	Senior management shall ensure that environmental, health and safety or legal issues are identified and addressed in MP19.
1.3.2	The respective management system managers are responsible for ensuring changes in legislation are monitored and F95 Register of Legislation and Compliance is updated with the relevant controls implemented.
1.3.3	The site will be made aware of any relevant changes in food safety legislation, industry codes of practice and developments through customer websites and memberships e.g. BSDA.
1.3.4	The Technical Director shall ensure that any changes to relevant legislation or codes of practice are communicated to the Technical Manager who will ensure that any changes are included in the HACCP system and testing regime as necessary.
1.3.5	The Group EHS Manager along with relevant Health, Safety and Environment membership's e.g. Barbour will ensure that any changes to relevant legislation or codes of practice are communicated to the site EHS manager for update of F95 Register of Legislation and Compliance & site processes.
1.3.6	Princes will inform personnel and effected parties of relevant legal and other requirements including environmental, health and safety.
1.3.7	Legal, certification and customer requirements are considered during risk assessment.
1.3.8	Evaluation of legal compliance will be completed a minimum of annually by internal audit considering current relevant legislation, F95, F68 and applicable external audits & communication.

2 The Food Safety Plan – HACCP

The site has a fully implemented and effective food safety plan based on Codex Alimentarius HACCP principles; this is documented in MAN08 Quality Risk Management and HACCP Plan HACCP-01.

2.1 The HACCP Food Safety Team – Codex Alimentarius Step 1

2.1.1	The HACCP plan (HACCP-01) is developed and managed by a multi-disciplinary food safety team that includes those responsible for quality assurance, technical management, IPC, production operations and engineering. The team leader has Level 4 HACCP training and has relevant experience and knowledge of the processes involved. The team members receive HACCP training and have relevant knowledge of product, process and associated hazards based on role experience.
2.1.2	The scope of the HACCP plan, including the products and processes covered is defined within HACCP-01.

2.2 Prerequisite Programmes

2.2.1	The site has established and maintained environmental and operational programmes necessary to create an environment suitable to produce safe and legal food products (prerequisite programmes HACCP-02). The control measures and monitoring procedures for the prerequisite programmes are clearly documented in HACCP-02 and is included within the development and reviews of the HACCP plan

2.3 Describe the Product – Codex Alimentarius Step 2

2.3.1	A full description for the products has been developed, which includes all relevant information on food safety HACCP-01 section 6; including composition, origin, physical or chemical properties that impact food safety (e.g. pH), thermal treatment, packaging system, storage & distribution conditions, and shelf-life.
2.3.2	All relevant information needed to conduct the hazard analysis is collected, maintained, documented and updated. The documentation supporting the HACCP plan is available within the HACCP folder. The company ensures that the HACCP plan is based on comprehensive information sources, which are referenced and available within the HACCP folder e.g. latest scientific literature, historical & known hazards associated with specific food products, codes of

	practice, guidelines, food safety legislation, customer requirements.

2.4 Identify Intended Use – Codex Alimentarius Step 3

2.4.1	The intended use of the product by the customer, and any known alternative use, shall be described, defining the consumer target groups, including the suitability of the product for vulnerable groups of the population (e.g. infants, elderly, and allergy sufferers).

2.5 Construct a Process Flow Diagram – Codex Alimentarius Step 4

2.5.1	A flow diagram HACCP-03 is prepared to cover each product, product category and process. This sets out all aspects of the food process operation within the HACCP scope, from raw material receipt through to processing, storage and distribution. This includes the following as a minimum: • plan of premises and equipment layout • raw materials including introduction of utilities and other contact materials, e.g. water, packaging • sequence and interaction of all process steps • outsourced processes and subcontracted work • potential for process delay • rework and recycling • low/high-care/high-risk area segregation • finished products, intermediate/semi-processed products, by-products and waste.

2.6 Verify Flow Diagram – Codex Alimentarius Step 5

2.6.1	The HACCP food safety team verify the accuracy of the flow diagrams at least annually by walking the process and signing the hard copy in the site HACCP file. Daily and seasonal variations are not relevant to the current process due to nature of raw materials and products. Records of verified flow diagrams shall be maintained.

2.7 list All Potential Hazards Associated with each Process Step, Conduct a Hazard Analysis and Consider any Measures to Control Identified Hazards – Codex Alimentarius Step, Principle 1

2.7.1	The HACCP food safety team identify and record all the potential hazards that are reasonably expected to occur at each step in relation to product, process and facilities as described in MAN08 Quality Risk Management. This includes the hazards present in raw materials, those introduced during the process or surviving the process steps, and consideration of the following types of hazard: • microbiological • physical contamination • chemical contamination • fraud (e.g. substitution or deliberate / intentional adulteration) • malicious contamination • allergens The identification of hazards should also take into account the preceding & following steps in the process chain.
2.7.2	The HACCP food safety team completes a hazard analysis assessment (HACCP04) for each potential hazard identified in 2.7.1 to determine the significant hazards and identify hazards which need to be prevented, eliminated or reduced to acceptable levels. Consideration is given to the following: • likely occurrence of hazard • severity of the effects on consumer safety • vulnerability of those exposed • survival and multiplication of micro-organisms of specific concern to the product • presence or production of toxins, chemicals or foreign bodies • contamination of raw materials, intermediate/semi-processed product, or finished product. Where elimination of the hazard is not practical, justification for acceptable levels of the hazard in the finished product are determined and documented.
2.7.3	The HACCP food safety team considers the control measures necessary to prevent or eliminate a food safety hazard or reduce it to an acceptable level. Where the control is achieved through existing prerequisite programmes, the prerequisite control programme is documented in

	HACCP02 and may use more than one control measure, an OPL is documented for each prerequisite to enable audit of prerequisite compliance.

2.8 Determine the Critical Control Points (CCPs) – Codex Alimentarius Step 7, Principle 2

2.8.1	For significant food safety hazards, that requires control, control points are reviewed to identify those that are critical. The critical control points (control points which are required to prevent or eliminate a food safety hazard or reduce to an acceptable level) are identified by the use of a decision tree and the review is documented in HACCP05. If a hazard is identified at a step where control is necessary for food safety but adequate control does not currently exist, the product or process shall be modified at that step, or at an earlier step, to provide a suitable control measure.

2.9 Establish Critical Limits for each CCP – Codex Alimentarius Step 8, Principle 3

2.9.1	For each CCP, the appropriate critical limits are defined in order to identify clearly whether the process is in or out of control, HACCP06. Critical limits are: • measurable e.g. time, temperature, pH (preferable) • supported by clear guidance or examples where measures are subjective, e.g. photographs
2.9.2	The HACCP food safety team validate each CCP (will it work?) to show that the control measures selected and critical limits identified are capable of consistently controlling the hazard to the specified acceptable level and document in HACCP07.

2.10 Establish a Monitoring System for Each CCP – Codex Alimentarius Step 9, Principle 4

2.10.1	A monitoring procedure is established for each CCP to ensure compliance with critical limits. The monitoring system detects the loss of control of CCPs and provides information in time for corrective action to be taken. The monitoring systems used must be suitable for the application and could include; online measurement, offline measurement, continuous measurement, e.g. thermographs, pH meters etc. Where discontinuous measurement is used, the system ensures that the sample taken is representative of the batch of product e.g. carton integrity assessed on each change of material or setting.
2.10.2	Records associated with the monitoring of each CCP include the date, time and result of measurement and are signed by the people responsible for the monitoring and verification. Where records are in electronic form there is evidence that records have been checked and verified e.g. hourly check in place of pasteuriser flow rate and temperature.

2.11 Establish a Corrective Action Plan – Codex Alimentarius Step 10, Principle 5

2.11.1	The HACCP food safety team specifies and documents the corrective action to be taken when monitored results indicate a failure to meet a control limit, or when monitored results indicate a trend towards loss of control in the HACCP control chart HACCP06. This includes the action to be taken by nominated personnel with regard to any products that have been manufactured during the period when the process was out of control.

2.12 Establish Verification Procedures – Codex Alimentarius Step 11, Principle 6

2.12.1	Procedures of verification are established to confirm that the HACCP plan, including controls managed by prerequisite programmes, are effective. The review and verification is completed annually on F210, this includes review of: • internal audits • incidents where acceptable limits have been exceeded • complaints by enforcement authorities or customers • incidents of product withdrawal or recall.

	Results of verification are recorded on F210 reviewed with the HACCP food safety team during the annual HACCP review.

2.13 HACCP Documentation and Record Keeping – Codex Alimentarius Step 12, Principle 7

2.13.1	Documentation and record keeping is sufficient to enable the site to verify that the HACCP and food safety controls, including controls managed by prerequisite programmes, are in place and maintained.

2.14 Review the HACCP Plan

2.14.1	The HACCP food safety team review the HACCP plan and prerequisite programmes at least annually and prior to any changes which may affect product safety. Changes to products, materials, equipment, processes or emergence of a new risk are assessed by using F191and resulting changes are incorporated into the HACCP plan and/or prerequisite programmes, fully documented and validation recorded. In the event of a recall an investigation would include the determination of root cause and result in appropriate actions being identified and completed. Where appropriate the identified changes will be reflected in the site's QSHEM policy P0 and food safety objectives.

3 Food Safety and Quality Management System

3.1 Food Safety & Quality manual

The company's processes and procedures to meet site, certification and customer requirements are documented to allow consistent application, facilitate training, and support due diligence in the production of a safe product.

3.1.1	The site's documented procedures, working methods and practices are summarised in this QSHEM and available in the master printed version from the Technical Manager or from the document control folder on the shared drive as a read only electronic version.
3.1.2	This QSHEM is briefed to the management team and this manual or relevant components e.g. Management Procedures, Policies, SOPs and OPLs are readily available to staff in the document control folder on the shared drive as read only electronic versions.
3.1.3	All procedures and work instructions are clearly legible, unambiguous, in English (current appropriate language for the site) and sufficiently detailed to enable their correct application by appropriate staff. Documents include the use of photographs, diagrams or other pictorial instructions where written communication alone is not sufficient or a picture is beneficial. All permanent employees are checked for their English literacy prior to commencing employment (agency employees are checked by the agency prior to commencing assignment and copies of test supplied to site for employee file)

3.2 Documentation Control

The company operates an effective document control system to ensure that only the correct versions of documents, including recording forms, are available and in use, this is detailed in MP02 Management Procedure for Document Control.

3.2.1	The company procedure to manage documents is MP02 and it forms part of the QSHEM system. • Initially F3, F6, F18 list controlled documents indicating the latest version number; this is being replaced by the SharePoint system. • The method for the identification and authorisation of controlled documents is described in MP02 • A record of the reason for any changes or amendments to documents is given when F01 is completed. • the system for the replacement of existing documents when these are updated is stated in

	MP02 Documents stored in electronic form are stored securely (read only & password protected) and backed up centrally by Head Office IT department.
3.2.2	Departmental Managers are responsible for ensuring that records relevant to their areas of authority are genuine, appropriately authorised and completed legibly and that any alterations to record entries are made by crossing out with 2 lines so as not to obliterate the original entry and ensure that it is still readable, justification for alteration shall be recorded. Any new entry is to be recorded next to it and the entry initialled.
3.2.3	Departmental Managers are responsible for retaining relevant documentation in good condition for the time detailed in the Group document retention policy. Upon completion of the retention period the Departmental Manager responsible for retaining the records must ensure secure disposal.

3.3 Record Completion and Maintenance

The site maintains genuine records to demonstrate the effective control of product safety, legality and quality.

3.3.1	Records are legible, maintained in good condition and retrievable (archived after a minimum of 1 month and kept for 7 years). Any alterations to records are made by crossing out the entry with 2 lines ensuring the original entry is still legible. If records are required in electronic form these are stored securely and backed up to prevent loss by the group IT department processes.
3.3.2	Records shall be retained for a minimum of 7 years and comply with the group policy 7 Document Retention Policy. The retention periods within the Group Policy consider legal or customer requirements. The shelf-life of the products is between 6 months and 12 months and freezing to extend shelf-life is not currently an option therefore 7 years is suitable for the products.
3.3.3	The Quality Improvement Leader ensures that all records related to product safety, legality and quality are reviewed, collated, maintained and stored to allow easy retrieval.
3.3.4	Maintenance requirements are carried out as detailed in the preventative maintenance schedule managed on SAP or equipment manufacturers' bespoke system e.g. TPMS for Tetra Pak equipment.

3.4 Internal Audits

Management procedure MP 14 is in place to verify legal compliance and the effective application of the food safety plan and the implementation of the requirements of the Global Standards for Food Safety, and other certification (ISO 14001 & OHSAS 18001) and customer requirements.

3.4.1	The site programme of internal audits is documented for the current year on F209. The scope of the audit schedule is detailed in MP14 and covers as a minimum EHS compliance, HACCP, prerequisites, food defence & food fraud prevention plans and management procedures. F209 includes the audit description / scope, the risk assessment and the determined frequency of the audits (minimum of annually).
3.4.2	Internal audits are carried out by appropriately trained competent auditors. The audit team is formed of individuals from Technical, Quality, EHS, Engineering, Production and planning to ensure auditors are independent (i.e. not audit their own work) of the process / records being audited.
3.4.3	The internal audit programme is fully implemented. Internal audit reports identify conformity as well as non-conformity and the results are reported to the personnel responsible for the activity audited through the audit report, corrective action request sheet F22 and summarised in corrective actions F46 Work list. Corrective actions and timescales for their implementation are agreed between the auditee and auditor and completion of the actions verified by the Technical Manager or EHS Manager.
3.4.4	In addition to the internal audit programme there are documented inspections to ensure that the factory environment and processing equipment is maintained in a suitable condition for food production. These inspections include hygiene inspections to access cleaning and housekeeping performance and fabrication inspections to identity risks to the product from the building or equipment and are summarised in figure 4. Frequency has been determined based on risk (open product areas are at least weekly).F301 review of housekeeping zone areas.

Figure 4 Hygiene & fabrication Inspection Risk Assessment by Area & Zone Classification

Area	Department	Zone Classification (Fig 5)	Hygiene & Fabrication Minimum Inspection Frequency	Comments
Yard (Raw Material)	Production	Enclosed product area	Quarterly	08:30 inspection (F262)
Aroma Storage	Production	Enclosed product area	Quarterly	Technical Inspection (F351)
Tanker off-load	Process	Enclosed product area	Quarterly	08:30 inspection (F262)
Drum up-lift	Process	Low Risk Area	Weekly	08:30 inspection (F262) 5S Audits
Blending tanks & Pasteurisers	Process	Enclosed product area	Quarterly	08:30 inspection (F262) 5S Audits
General	Production	Enclosed product area	Quarterly	08:30 inspection (F262) 5S Audits
Fillers	Production	Enclosed product area	Quarterly	08:30 inspection (F262) 09:00 board walk (F287) 5S Audits
Rework	Production & Process	Low Risk Area	Weekly	08:30 inspection (F262) 09:00 board walk (F287)
Downstream (Carton coders to conveyor to bridge & Dollie)	Production	Enclosed product area	Quarterly	08:30 inspection (F262) 09:00 board walk (F287) 5S Audits
Palletiser	Warehouse	Enclosed product area	Quarterly	08:30 inspection (F262) 5S Audits
Warehouse (U69)	Warehouse	Enclosed product area	Quarterly	08:30 inspection (F262) 5S Audits
Despatch Yard (U69)	Warehouse	Enclosed product area	Quarterly	08:30 inspection (F262)
Warehouse (U72) & Yard	Warehouse	Non-Product Areas	Quarterly	Technical Inspection (F351) 5S Audits
Dry ingredient weighing-up	Quality	Low Risk Area	Weekly	Inspection (F352)
Shelf-life Room	Quality	Enclosed product area	Quarterly	Technical Inspection (F351)
Aroma weighing-up & Analytical Laboratory	Quality	Low Risk Area	Weekly	08:30 inspection (F262) 5S Audits
Microbiological Laboratory	Quality	Non-Product Areas	Quarterly	08:30 inspection (F262) 5S Audits
Offices	Site	Non-Product Areas	Quarterly	5S Audits
Engineering	Engineering	Non-Product Areas	Quarterly	08:30 inspection (F262) 5S Audits
Employee Facilities (Canteen, Locker rooms, Toilets etc.)	Production	Non-Product Areas	Quarterly	08:30 inspection (F262)
Perimeter	Production	Non-Product Areas	Quarterly	Monthly Technical Inspection (F351)

3.5 Supplier and Raw Material Approval and Performance Monitoring

The company has an effective supplier approval and monitoring system to ensure that any potential risks from raw materials (including primary packaging) to the safety, authenticity, legality and quality of the final product are understood and managed.

3.5.1.1	Princes undertakes documented risk assessments of each raw material or group of raw materials including primary packaging to identify potential risks to product safety, legality and quality as described in MAN08 Quality Risk Management (Review of raw material groups, process steps and manufacturers). The risk assessments are included within the product TACCP / VACCP / Integrity plan and takes into account the potential for: • allergen contamination • foreign body risks • microbiological contamination • authenticity & product cross contamination • chemical contamination • substitution or fraud (see clause 5.4.2) • any risk associated with raw materials which are subject to legislative control e.g. aflatoxins (patulin, ochratoxin) Consideration is also given to the significance of a raw material to the quality of the final product where appropriate e.g. Halal, Organic, Fair trade as applicable to the individual product certified standards The risk assessments support the quality plan for testing & frequency. The risk assessment for a raw material is updated when: • there is a change in a raw material, the processing of a raw material, or the supplier of a raw material • a new risk emerges • a product recall or withdrawal implicates a specific raw material, or • at least every 3 years.
3.5.1.2	The company has a documented supplier approval process managed by Head Office OPL-MAN-PRP-15 and monitoring procedures are in place to ensure that suppliers of raw materials including primary packaging (concentrate testing, review of CoA's, print run checks for sleeves), effectively manage risks to raw material quality and safety. Manufacturer's traceability details are supplied on material packaging enabling the manufacturer to trace component parts or manufacturing details, these systems are reviewed through SSC, audit and challenge. The approval and monitoring procedure is based on risk and includes one or a combination of: • certification (e.g. to BRC Global Standards or other GFSI benchmarked standard where the scope includes the raw material purchased) • supplier audits with a scope to include product safety, traceability, HACCP review and good manufacturing practices, undertaken by a Princes' experienced and demonstrably competent product safety auditor. Or, for suppliers assessed as low risk only, supplier questionnaires which include product safety, traceability, HACCP review and good manufacturing practices are issued, marked and reviewed by the Princes Specification Team (Bradford). The site has an up to date list of approved suppliers.
3.5.1.3	Ongoing supplier performance is reviewed and included in the risk assessment. Approval based on questionnaires requires the Princes Specification Team (Bradford) to reissue the questionnaire at least every three years and the suppliers are required to notify the site of any significant changes or changes in certification status in the interim. Records of the questionnaire reissue & review are kept.
3.5.1.3	Where raw materials are purchased from agents or brokers, Princes reviews and approves both the agent/broker and the manufacturing site. The agent/broker is either themselves certified to the BRC Global Standard for Agents and Brokers or information to enable the approval of the manufacturer, packer or consolidation, as in clause 3.5.1.2, is obtained.
3.5.1.4	Princes has an up-to-date electronic list of approved suppliers which is available on the Princes shared drive and is password protected.
3.5.1.5	Where raw materials (including primary packaging) are purchased from companies that are not the manufacturer, packer or consolidator (e.g. purchased from an agent, broker or wholesaler), both the agent and the manufacturer are included on the approved supplier list and the purchase order / contract states the relevant manufacturing site ensuring that information for manufacturer approval as in clauses 3.5.1.1 and 3.5.1.2 is obtained directly from the supplier unless the agent / broker is themselves certificated to a BRC standard (e.g. BRC Global Standard for Agents and Brokers) or a standard benchmarked by GFSI).
3.5.1.6	Princes ensure that its raw material suppliers (including primary packaging) have an effective traceability. Where a supplier has been approved based on a questionnaire instead of certification or audit, verification of the supplier's traceability system (traceability test) is carried out by the Specification team at Bradford site on first approval and then at least every 3 years. Currently no raw materials are received directly from a farm or fish farm which would not require a mandatory verification

<table>
<tr><td></td><td>of the traceability system.</td></tr>
<tr><td>3.5.1.7</td><td>Raw materials supplied by the customer will be an exception to the supplier approval processes in clause 3.5.1.2, specification and allergen information will still be obtained and receipt testing of concentrates will still be completed.

When a site produces customer-branded product the relevant exceptions shall be identified to the customer.</td></tr>
<tr><td>3.5.2</td><td>Controls on the acceptance of raw materials including packaging ensure that the raw materials do not compromise the safety, legality or quality of products and where appropriate claims of authenticity.</td></tr>
<tr><td>3.5.2.1</td><td>The site has a documented procedure for the acceptance of raw materials and packaging on receipt based upon the risk assessment (3.5.1.1).
<table>
<tr><th>Raw Material</th><th>Method of acceptance & Release</th></tr>
<tr><td>Tanker</td><td>Analytical testing of each tanker, check of documentation and comparison to CoA. Specification detailed on product PI sheets.</td></tr>
<tr><td>Drums</td><td>Analytical testing of each manufacturer’s batch and comparison to CoA. Specification detailed on product PI sheets.</td></tr>
<tr><td>Powders</td><td>Visual inspection of packaging integrity on receipt and check of CoA/CoC verses specification. Specification on shared drive and maintained by Specification team.</td></tr>
<tr><td>Aromas / Flavours</td><td>Visual inspection of packaging integrity on receipt and check of CoA verses specification. Specification on shared drive and maintained by Specification team.</td></tr>
<tr><td>Laminated board sleeves</td><td>Visual inspection of sample from each print run compared to approved pdf and/or cromalin</td></tr>
<tr><td>Other packaging (e.g. Trays, strips, caps, film, glue)</td><td>Visual inspection for damage on receipt. Tray print colour checked against approved colour swatch.</td></tr>
</table>
Receipt integrity checks are documented in OPL-GEN-MAN-12.</td></tr>
<tr><td>3.5.2.2</td><td>1st production run and change check list F182 is completed to ensure updated / changed specifications, pdfs, colour swatches etc. have been received and site documentation is updated to communicate the changes to the relevant personnel.</td></tr>
<tr><td>3.5.2.3</td><td>The site is not in receipt of live animals and therefore this clause of the BRC standard is not applicable.</td></tr>
<tr><td>3.5.3</td><td>The company demonstrates that where services are outsourced the service is appropriate and any risks presented to food safety, legality and quality have been evaluated to ensure effective controls are in place.
<table>
<tr><th>Outsourced Service</th><th>Potential Risks to Food Safety, Legality, Quality & security of product</th><th>Controls in Place</th></tr>
<tr><td>Pest Control</td><td>Inadequate pest control leading to food safety risks – FB contamination, infestation, chemical contamination</td><td>BPCA registered, audited quarterly with 6 monthly reviews.</td></tr>
<tr><td>Laundry Services</td><td>Inadequate segregation of cleaning of work-wear leading to food safety risks – FB, chemical, allergen or microbiological contamination</td><td>Princes approved supplier
Audited annually</td></tr>
<tr><td>Contracted Cleaning</td><td>N/A as process and production equipment and areas are cleaned by Princes employees. Contract cleaners only used for office and canteen annual deep clean.</td><td>Princes approved supplier</td></tr>
<tr><td>Contracted servicing & maintenance of equipment</td><td>Inadequate servicing & maintenance of equipment leading to food safety risks – FB or, chemical contamination</td><td>Princes approved contractors, Safe contractor approved, relevant certification for relevant tasks e.g. F-gas registered</td></tr>
<tr><td>Transport & distribution</td><td>Inadequate controls for hygiene and security leading to food safety risks – FB, allergen, chemical, microbiological or malicious contamination</td><td>Princes approved contractors, signed annual agreement</td></tr>
<tr><td>Cold-store</td><td>Inadequate controls for temperature, hygiene, segregation and security leading to food safety risks – FB, allergen, chemical, microbiological or malicious contamination</td><td>Princes approved contractors, signed annual agreement certification (as applicable e.g. BRC, Organic, Fair trade)
Annual audit</td></tr>
<tr><td>Laboratory Testing</td><td>Incorrect test results which could lead to an issue with product safety, quality or authenticity not being</td><td>Testing methods certified where appropriate and possible e.g.</td></tr>
</table></td></tr>
</table>

		identified	UKAS, COFRAC, ISA
	Catering	Inadequate control of food preparation requirements which could lead to nut /sesame on site, employee food poisoning or food borne illness which could potentially lead to allergen or microbiological contamination of products (as applicable).	Princes approved contractor, audited by Environmental Health and site audits completed monthly
	Waste	Inadequate provision of service which could lead to waste build-up on site, attract pests and lead to physical or microbiological contamination of products	Approved contractor holding the required licenses with National Resources Wales / Environment Agency. Audited annually, copies of current certificates maintained on site.

3.5.3.1	Documented procedure for the risk-based approval and monitoring of suppliers of services within OPL-MAN-PRP-15 and within specific pre-requisite OPLs which takes into consideration: • risk to the safety & quality of products • compliance with any specific legal requirements • potential risks to the security of the product (i.e. risks identified in the vulnerability & food defence assessments)
3.5.3.2	Contracts or formal agreements exist with the suppliers of services that clearly define service expectations and ensure potential food safety risks associated with the service have been addressed.

Outsourced Service	**Contract / Formal Agreement**
Pest Control	Service agreement kept on file and specification documented in GEN05
Laundry Services	Contract in place agreed between supplier & Head Office Legal Department
Contracted cleaning	Contract in place agreed between supplier & Head Office Legal Department
Contracted servicing & maintenance of equipment	Annual agreements or purchase order on a job by job basis
Transport & distribution	Annual signed agreement of service requirements
Cold-store	Annual signed agreement of service requirements
Laboratory Testing	Purchase order on a job by job basis
Catering	Contract in place agreed between supplier & Head Office Legal Department
Waste	Service agreement kept on file

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3.5.4	Princes Cardiff do not have any process steps in the manufacture or packing of a product which is included within the scope of certification that is subcontracted to a third party or undertaken at another site. All products leave the site as integral cartons.
3.5.4.1	If Princes were to outsource part of the process then the company would be able to demonstrate that this has been declared to the brand owner and, where required, approval granted.
3.5.4.2	Princes would ensure that any outsourced processors are approved and monitored to ensure that they effectively manage risks to product safety and quality and are operating effective traceability processes by successful completion of either • certification to the BRC Global Standard for Food Safety or other GFSI benchmarked standard where the scope of the certification includes the outsourced process. or • a documented site audit with a scope to include product safety, traceability, HACCP review and good manufacturing practices by an experienced and demonstrably competent Princes product safety auditor. If Princes use an outsourced processor then a documented process for ongoing supplier performance review, based on risk and defined performance criteria will be created, implemented and records kept.
3.5.4.3	Any outsourced processing or packing operations would: • be undertaken in accordance with established contracts which clearly define any processing and / or packing requirements and product specification • maintain product traceability.
3.5.4.4	The company would establish inspection and test procedures with frequencies in the event part of the product processing or packing have been outsourced, including visual, chemical and/ or microbiological testing, dependent on risk assessment.

3.6 Specifications

Specifications exist for raw materials including packaging, finished products and any product or service which could affect the integrity of the finished product.

3.6.1	Specifications for raw materials and packaging are adequate and accurate and ensure compliance with relevant safety

	and legislative requirements. The specifications include defined limits for relevant attributes of the material which may affect the quality or safety of the final products (e.g. chemical, microbiological or physical standards) and are maintained by Princes Specification Team (Bradford) and available on the shared drive.
3.6.2	Accurate, up to date specifications are available for all finished products on the site product information sheets. These include key data to meet customer and legal requirements. Finished product specifications are also completed and maintained by the Princes specification team in Bradford and these are available on the Princes shared drive or customer web-based specification systems as applicable to the product. Carton designs include information to assist the user in the safe usage of the product
3.6.3	The Princes and customers agree specifications via customer web-based systems or manual processes, maintained by the Princes Specification Team (Bradford).
3.6.4	Specifications are reviewed whenever products change (e.g. ingredients, processing method, suppliers, regulations & other risks) or at least every three years. The date of review and the approval of any changes are recorded on the specifications.

3.7 Corrective and Preventative Actions

The site MP13 details the corrective action procedure and MP16 preventative action procedure. The procedure references the use of form F22 to record identified non-conformances from sources including internal & external audits and management reviews to make necessary corrections and prevent recurrence. Corrective & preventative actions from other sources (e.g. deviations, change control, hazard spots, spillage, incident, breakage reports) are captured and tracked through the action log F46.

3.7.1	The site documented procedure for handling and correcting failures identified in the food safety and quality system is MP13.
3.7.2	Where a non-conformity places the safety, legality or quality of products at risk this is investigated and recorded on a quarantine form and/or deviation form (depending on the nature of the non-conformity) the forms include: ● clear documentation of the non - conformity ● assessment of consequences by a suitably competent and authorised person ● The action to address the immediate issue ● An appropriate timescale for correction ● the person responsible for correction ● verification that the correction has been implemented and is effective ● identification of the root cause of the non- conformity and implementation of any necessary actions to prevent recurrence.
3.7.3	The quarantine and deviation processes, forms & logs require root cause analysis which is used to implement ongoing improvements and to prevent recurrence of non-conformities where-ever possible but as a minimum when: • analysis of non-conformities for trends shows there has been a significant increase in a type of non-conformity • a non-conformity that is a risk to safety, legality or quality (applicable to Health, Safety, Environment & product),

3.8 Control of Non-conforming Product

The site ensures that any out of specification product is effectively managed to prevent unauthorised release as detailed in MP10.

3.8.1	Management Procedure MP10 details the process for managing non-conforming products which includes: • the requirement for staff to identify and report a potentially non-conforming product • clear identification of a non-conforming product using a red quarantine label & electronically blocking the pallet from dispatch using the SAP warehouse management system • identified, labelled & blocked storage locations • referral to the brand owner where required • defined responsibilities for decision-making on the use of products appropriate to the issue (e.g. destruction, reworking, release or acceptance by concession) • records of the decision on the use or disposal of the product • records if destruction where product is destroyed for food safety reasons
3.8.2	Records of all inspections and tests shall be kept to demonstrate conformity of the product.

3.9 Traceability

The site is able to trace all raw material product batches (including packaging) from its suppliers through all stages of processing and dispatch to its customers and vice versa MP08.

3.9.1	The traceability procedure from raw material delivery to despatch or delivery to customer (depending on the customer contract) is documented in OPL-PRP Which includes how the traceability system works and the labelling and records required.
3.9.2	Identification of raw materials, including primary and any other relevant packaging, semi-processed products, part-used materials, finished products & materials pending investigation, are maintained through manufacturer batch coding or site coding to ensure traceability.
3.9.3	The internal audit schedule F209 requires the site tests the traceability system on varying products to ensure traceability can be determined from raw material including primary packaging to finished product & vice versa, including quantity check/mass balance. Traceability test document provides a summary of the documents that should be referenced during the test and clearly shows the links between them. Traceability tests occur quarterly, are timed to ensure completion within required time-scale and records are retained. (BRC – full trace 4 hours, Tesco – traceability back to supplier and forward to despatch / customer 2 hours)
3.9.4	Where rework or any reworking operation is performed, traceability is maintained through recording of product codes, production codes and operation timings.

3.10 Complaint Handling

Customer complaints are handled effectively following MP12 and information is collated and used to reduce recurring complaint levels.

3.10.1	All complaints are recorded, investigated and the results of the investigation of the issue recorded where sufficient information is provided or the customer specifically requests an investigation report. Actions appropriate to the seriousness and frequency of the problems identified are carried out promptly and effectively by appropriately trained staff
3.10.2	Complaint data is analysed for significant trends. Where there has been a significant increase in a complaint or a serious complaint, root cause analysis is used to implement ongoing improvements to product safety, legality and quality, and to avoid recurrence. This analysis is included with the monthly Technical Review Meeting or the Efficiency Action Plan meeting. Complaint levels are included in the site KPis and are displayed and communicated to employees monthly. Where appropriate, trends and examples are displayed to aid employees understanding of current issues.

3.11 Management of Incidents, product Withdrawal and Product Recall

Princes have a Group Crisis Manual to manage incidents effectively and enable the withdrawal and recall of products should this be required. Site management procedure MP12 references this group manual and specific site requirements.

3.11.1	The Group Crisis Manual, MP21 Emergency Preparedness and Response plan and site Emergency Plan are designed to report and effectively manage incidents and potential emergency situations that impact foot safety, legality or quality (e.g.: • disruption to key services such as water, energy, transport, refrigeration processes, staff availability & communications • events such as fire, flood or natural disaster • malicious contamination or sabotage • failure or, or attacks against, digital cyber-security.) This shall include consideration of contingency plans to maintain product safety, quality & legality. Where products have been released from the site may be affected by an incident consideration will be given to the need to withdraw or recall products as per the group crisis manual.
3.11.2	The site Emergency Plan and Group Crisis Manual are capable being operated at any time. The Group Crisis manual includes: • identification of key personnel constituting the recall management team, which clearly identifies responsibilities • guidelines for deciding whether a product needs to be recalled or withdrawn and the records to be maintained • a communication plan including the provision of information to customers, consumers and regulatory authorities in a timely manner • a plan to handle logistics of product traceability, recovery or disposal of affected product, and stock reconciliation • a plan to record timings of key activities • a plan to conduct root cause analysis and to implement ongoing improvements to avoid recurrence.

	The site Emergency Plan includes: • the emergency phone contact list, first point of contact must always be the emergency services (if required), the senior management team out of hours contact details, customers, certification body and regulatory authority, suppliers e.g. utilities, security / alarms, boiler service contract, external agencies, specialist laboratories, legal expertise.
3.11.3	The product recall and withdrawal procedures are included within the internal audit schedule for testing at least annually, test is completed out of hours every 3 years. The emergency contact list is checked out of hours to ensure contact can be made with the site senior management team. Results of the test are retained and include timings of key activities. The results of test and of any actual recall are used to review the procedure and implement improvements as necessary
3.11.4	In the event of a significant food safety incident (product recall or regulatory food safety non-conformity / enforcement notice), the Certification Body issuing the current certificate for the site against the Global Food Safety Standard will be informed within three working days of the decision to issue a recall or receipt of enforcement notice.
3.11.5	The EHS manager is responsible for: • the production and maintenance of facility emergency response procedures • training the Cardiff incident controllers and evacuation wardens in their responsibilities under the procedure • organising periodic evacuation drills • providing adequate fire signage • providing and ensuring the maintenance of fire extinguisher and fire alarms • performing fire risk assessments Management is responsible for providing adequate coverage of incident controllers and evacuation wardens.

3.12 Customer Focus and Communication

The company ensures that any legal, certification, customer-specific requirements or policies are understood, established, implemented, maintained and clearly communicated to relevant staff and, where appropriate, suppliers of raw materials, packaging and services. Processes are established, implemented and maintained for consultation and participation of workers at all levels and functions.

3.12.1	Where Princes is requested to follow specific customer requirements, codes of practice, methods of working etc. these are made known to relevant staff within the site and implemented through incorporation into site documentation.
3.12.2	Effective processes are in place for communicating customer specific requirements to the suppliers of raw materials and services as applicable, through specifications or agreements.
3.12.3	Employee Participation – EH&S Committee The site EH&S Committee is scheduled to meet on a monthly basis and the committee comprises of: • Management Representatives • Union Safety Representatives • EHS Manager The EH&S Committee meeting will include as a minimum any EH&S issues, review of previous meeting minutes and actions, review of inspection findings, development, planning, implementation, performance evaluation and actions arising for improvement of EH&S performance & management system.
3.12.4	Employee representatives are involved in Working in Partnership meetings a minimum of quarterly.
3.12.5	The site provides mechanisms, time, training and resources necessary for consultation and participation, timely access to clear understandable & relevant information and determines and where possible removes obstacles or barriers to participation.
3.12.6	Non-managerial workers are consulted on determining the needs & expectations of interested parties, QSHEM policy, organisational roles, responsibilities and authorities, process to fulfil requirements, objectives & planning and audits.
3.12.7	Non-managerial workers participate in identification of hazards, assessing risks & opportunities, determining actions to eliminate hazards and reduce risks, determining competence requirements, training needs, training and competence assessment, determining

	control measures and investigating incidents & non-conformities and determining corrective actions.

4 Site Standards

4.1 External Standards

The production site is of a suitable size, location and construction, and is maintained to reduce the risk of contamination and facilitate the production of safe and legal finished products.

4.1.1	The pre-requisites give consideration to local activities and the site environment, which may have an adverse impact on finished product integrity, and where applicable measures are taken to prevent contamination. If specific measures are put into place the site they shall be reviewed in response to any changes as part of a modification assessment.
4.1.2	The external areas are maintained in good order detailed in OPL-GEN-MAN-14 ensuring grass is cut, weeds and pest harbourage around buildings and fence lines are minimised. External traffic routes under site control are suitably surfaced, this is reviewed during site housekeeping audits. FLTs are not permitted to enter process and production areas, and raw materials transported between units are covered to avoid contamination of the product.
4.1.3	The building fabric is maintained to minimise potential for product contamination (e.g. hawk flights, sealing gaps around pipes to prevent pest entry, ingress of water and other contaminants).

4.2 Site Security and Food Defence

Security systems ensure that products, premises and brands are protected from malicious actions while under the control of the site; detailed in OPL-MAN-PRP06.

4.2.1	The site undertakes an annual documented assessment review which includes TACCP, VACCP, site security, integrity and potential threats, vulnerabilities and risks to the products from any external deliberate attempts to inflict contamination or damage which is collated into a Threat Assessment Plan. Areas are assessed according to risk. Identified actions and control measures to reduce risks (authenticity testing, tamper evident seals, approved certified suppliers, fob door access, key control, gate with key pad etc.) are implemented. The Threat Assessment Plan is reviewed annually or in the event of a new emerging risk or an incident occurs where product security or food defence is implicated. External storage tanks, silos and any intake pipes with an external opening are secure through lock or restricted access.
4.2.2	Where raw materials or products have been identified as high risk in the threat assessment the threat assessment plan will include controls to mitigate the identified risks along with systems that identify potential tampering (if applicable). The threat assessment plan will document the control monitoring process, result recording and requirement for and results of the annual review.
4.2.3	Areas where a significant risk has been identified in the threat assessment (including external storage and intake points for ingredients & packaging) the plan will define the required monitoring and control processes. Measures are in place (fob / key access) to ensure only authorised personnel have access to production and storage areas and access to the site by employees, contractors and visitors is controlled. A visitor reporting system is in place F05. Staff are trained in site security procedures and product integrity procedures and are encouraged to report unidentified or unknown visitors.
4.2.4	The site is approved by the Cardiff Environmental Health department and audit result is displayed in unit 72 reception.

4.3 Layout, Product Flow and Segregation

The factory layout, flow of processes and movement of personnel is sufficient to prevent the risk of product contamination (no high-care or high-risk areas) and to comply with relevant legislation.

4.3.1	There a map of the site which designates areas where product is at different levels of risk contamination based on BRC guidelines defining the production risk zones. The zone assessment is displayed in fig.5. The map also defines: • access points for personnel • access points for raw materials (incl. packaging), semi-finished products & open

	products • routes of movement for personnel • routes of movement for raw materials (including packaging) • routes for the removal of waste • routes for the movement of rework • location of any staff facilities, including changing rooms, toilets, canteens and smoking area, and • production process flows. The zoning is also taken into account when determining the prerequisite programmes for the areas of the site.
4.3.2	Contractors and visitors, including drivers, are made aware of all procedures for access to premises and the requirements of the areas they are visiting, with special reference to hazards and potential product contamination through briefing or induction. Contractors working in product processing or storage areas receive a site induction and are the responsibility of a nominated person.
4.3.3	The movement of personnel, raw materials, packaging, rework and/or waste does not compromise the safety of products. The process flow and the use of demonstrably effective procedures are in place to minimise the risk of the contamination of raw materials, intermediate/semi-processed products, packaging and finished products. The site does not have any high-care areas requiring physical segregation between these areas and other parts of the site. Segregation is used for allergenic materials / products as well as Organic and Halal materials / products taking into account the flow of product, nature of materials (including packaging), equipment, personnel, waste, airflow, air quality and utilities provision (including drains). Risk assessments are completed and documented and practices are in place to minimise risk of product contamination.
4.3.4	Premises allow sufficient working space and storage capacity to enable all operations to be carried out properly under safe hygienic conditions.
4.3.9	Temporary structures constructed during building work or refurbishment, are designed and located to avoid pest harbourage and ensure the safety and quality of ingredients, packaging and products, while maintaining employee safety.

Figure 5 Production Risk Zone Classification (BRC Decision Tree 2 – Ambient Products)

Area	**Zone Classification Steps**					**Classification**
	1	2	3	4	5	
Yard	Ambient	Enclosed	N/A	N/A	N/A	Enclosed product area
Aroma Storage	Ambient	Enclosed	N/A	N/A	N/A	Enclosed product area
Tanker off-load	Ambient	Enclosed	N/A	N/A	N/A	Enclosed product area
Drum up-lift	Ambient	Open	Pasteurised	No (pH<4.0)	N/A	Low Risk Area
Blending tanks & Pasteurisers	Ambient	Enclosed	N/A	N/A	N/A	Enclosed product area
Fillers	Ambient	Enclosed	N/A	N/A	N/A	Enclosed product area
Rework	Ambient	Open	Pasteurised Equivalent 85°C for 5 mins	No (pH<4.0)	N/A	Low Risk Area
Downstream (Carton coders to conveyor to bridge & Dollie)	Ambient	Enclosed	N/A	N/A	N/A	Enclosed product area
Palletiser	Ambient	Enclosed	N/A	N/A	N/A	Enclosed product area
Warehouse	Ambient	Enclosed	N/A	N/A	N/A	Enclosed product area
Dry ingredient weighing-up	Ambient	Open	Pasteurised	No (pH<4.0)	N/A	Low Risk Area
Aroma weighing-up (Laboratory)	Ambient	Open	Pasteurised	No (pH<4.0)	N/A	Low Risk Area
Offices	N/A	N/A	N/A	N/A	N/A	Non-Product Areas
Engineering	N/A	N/A	N/A	N/A	N/A	Non-Product Areas
Employee Facilities (Canteen, Locker rooms,	N/A	N/A	N/A	N/A	N/A	Non-Product Areas

Toilets etc.)						

4.4 Building Fabric, Raw Material Handling, Preparation, Processing, packing and Storage Areas

The fabrication of the site, buildings and facilities is suitable for the intended purpose.

4.4.1	Walls are finished and maintained to prevent the accumulation of dirt, minimise condensation and mould growth, and facilitate cleaning.
4.4.2	Floors are hard wearing to meet the demands of the process, and withstand cleaning materials and methods. Due to the acidic corrosive nature of the product, condition is monitored along with new developments in flooring to ensure they are impervious and maintained in good repair (currently internal flooring should be upgraded using UCrete based on identified prioritised areas and during equipment replacement projects).
4.4.3	Drainage where provided, is sited, designed and maintained to minimise risk of product contamination and not compromise product safety. Machinery and piping is arranged, wherever feasible, so that process waste water goes directly to drain. Where piping to drain is not feasible, floors have adequate falls to cope with the flow of any water or effluent towards suitable drainage. A map of the drains for the site is maintained (copy within the HACCP folder). Drain covers within the Production and Process areas are marked to show the direction of flow. Production and Process hose pipes are fitted with non-return valves to prevent the back up of water. The flow of drains does not present a risk of contamination.
4.4.4	Ceilings and overheads are constructed with coated ceiling tiles and the condition is monitored during housekeeping audits to prevent the risk of product contamination.
4.4.5	Suspended ceilings and roof voids have adequate access to the void to facilitate inspection for pest activity. Pest activity is monitored by the pest contractor.
4.4.6	Where elevated walkways are adjacent to or pass over production lines, they are: • designed to prevent contamination of products and production lines • easy to clean, and • correctly maintained.
4.4.7	Windows and roof glazing within production areas are not designed to be opened.
4.4.8	Doors (internal & external) are maintained in good condition at a minimum: • External doors and dock levellers are close fitting and adequately proofed. • External doors to open product areas are not opened while open products or ingredients are present (tank 8/9 room and drum uplift), except in emergencies. • Where external doors to enclosed product areas are opened, suitable precautions are taken to prevent pest ingress, through proofing and door control. o Unit 68 downstream rapid roller door used when packaging and dry lube required and strip curtain in place. o Unit 69 warehouse – rapid roll door in place
4.4.9	Lighting is provided at > 300 lux to ensure correct operation of processes, inspection of product and effective cleaning.
4.4.10	Adequate ventilation and extraction is provided in product storage and processing environments to minimisation condensation or excessive dust.
4.4.11	The site does not have any high-risk areas and therefore positive air pressure and filtered air is not required.

4.5 Utilities – Water, Ice, Air and Other Gases

Utilities used within the production and storage areas are monitored (based on contact with ingredients, packaging or products) to effectively control the risk of product contamination.

4.5.1	All water (including ice & steam) used as a raw material in the product manufacture & preparation, hand-washing or for equipment or plant cleaning is supplied by Welsh Water in sufficient quantity, potable at point of use and pose no risk of contamination according to legislation. The microbiological and chemical quality of water is analysed at least annually as identified by the site risk assessment and detailed in LAB093 which includes the sampling points, scope of testing & frequency of analysis based on risk assessment taking into account the source of the water, on-site storage, distribution facilities, previous sample history and usage.
4.5.2	An up-to-date schematic diagram of the water distribution system on site, including tanks, water treatment and water recycling as appropriate is contained within the Legionella file and is used as

	a basis for water sampling and the management of water quality.
4.5.3	Air and other gases used as an ingredient or that are in direct contact with products are monitored to ensure this does not represent a contamination risk. Compressed air that is in direct contact with the product is filtered at the point of use. Sterile air is used within the air knife removing the peroxide used to sterilise the cartons is filtered as per the equipment manufacturers designed process within the supplied fillers. The sterility of the packaging and product is monitored by yeast and mould testing as per the testing schedule in OPL-LAB-01.

4.6 Equipment

All food-processing equipment is suitable for the intended purpose minimising the risk of contamination of product.

4.6.1	All equipment is constructed of appropriate materials and the design and placement of equipment ensures it can be effectively cleaned and maintained.
4.6.2	Equipment which is in direct contact with food is suitable for food contact and meets legal requirements as appropriate. Certificates of compliance are held for Tetra fillers.

4.7 Maintenance

An effective maintenance programme is in operation for plant and equipment to prevent contamination and reduce the potential for breakdowns, following the equipment manufacturer's recommendation.

4.7.1	The documented planned maintenance schedule or condition monitoring system includes all plant and processing equipment and is maintained by the Engineering Preventative Maintenance Coordinator. The maintenance requirements of new equipment are defined during commissioning as per MAN12 change control and the completion of the modification assessment review form F12.
4.7.2	In addition to any planned maintenance programme, where there is a risk if product contamination by foreign bodies arising from equipment damage, the equipment is inspected at predetermined intervals, inspection results documented and appropriate action taken. SAP is used to schedule inspections and record results.
4.7.3	Where temporary repairs are made, these are controlled to ensure the safety or legality of a product is not jeopardised, the temporary repairs are logged on SAP along with the ordering of required parts and scheduling of permanent repair as soon as practicable.
4.7.4	The site ensures that the safety or legality of product is not jeopardised during maintenance and subsequent cleaning operations. Maintenance work that enters the product path is followed by a documented hygiene clearance procedure, which records that product contamination hazards have been removed from machinery and equipment and where applicable triggers a step zero or full CIP. PROD04 Preparation of production after step zero / F143 and OPL-MAN-16 Food safety clearance / F166. The Shift Coordinator is authorised to confirm the removal of contamination hazards and accepting the equipment and or machinery back into operation.
4.7.5	Materials and parts used for equipment and plant maintenance are of an appropriate grade and quality. Where materials and parts pose a risk by direct or indirect contact with raw materials, intermediate and finished products, such as lubricating oil, are food grade and of known allergen status. Records of lubrication oil food grade and allergen status are within the Allergen Manual and new chemicals are approved by completion of F101.
4.7.6	The Engineering workshop is kept clean and tidy and controls are in place to prevent transfer of engineering debris to production or storage areas. Dirty engineering tasks i.e. drilling, grinding, welding, turning are completed within a segregated area; production jacket must be removed and hung up on provided hooks prior to moving onto the swarf mat and putting on the grey engineering 'dirty task' coat, leaving the area the process must be repeated and the coat placed in the laundry locker or on the provided in use dirty coat hooks. Swarf mats are also in place at the work shop exit and alongside work benches.

4.8 Staff Facilities

Staff facilities are sufficient to accommodate the required number of personnel, and are designed and operated to minimise the risk of product contamination. The facilities are maintained in good and clean condition.

4.8.1	Designated changing facilities are provided for all personnel, visitors and contractors. The main changing facilities are situated within Unit 68 and allow access to laboratory, process & production areas without recourse to external areas. Office based personnel, contractors and visitors change within Unit 69 which requires movement between units as do the roles within the laboratory, process & production – the movement of personnel, visitors and contractors externally is low risk due to product enclosure within tanks, pipes, pasteuriser and cartons and the product is filtered prior to pasteurisation. Risk assessment is completed and reviewed annually.
4.8.2	Employee lockers are of sufficient size to accommodate personal items; lockers provided to employee are detailed within P10 Work-wear policy.
4.8.3	Outdoor clothing and other personal items are stored separately from production clothing within the changing facilities. Facilities are available to separate clean and dirty production clothing.
4.8.4	Suitable and sufficient hand-washing facilities are provided at access to, and at other appropriate points within, production areas. Hand wash facilities provide as a minimum: ● advisory signs to prompt hand-washing ● sufficient quantity of water at a suitable temperature (40°±3°C) ● water taps with hand free operation ● liquid/foam antibacterial soap ● single use towels or air driers
4.8.5	Toilets are adequately segregated and do not open directly into production or packing areas. Toilets are provided with hand-washing facilities comprising: ● Basins with soap and water at a suitable temperature (40°±3°C). ● Adequate hand-drying facilities. ● Advisory signs to prompt hand-washing. Where hand-washing facilities within toilet facilities are the only facilities provided before re-entering production, the requirements of clause 4.8.4 apply and signs are in place to direct people to hand-washing facilities before entering production.
4.8.6	A designated controlled smoking area is provided which is isolated from production areas to an extent that ensures smoke cannot reach the product and situated outside as per the relevant legislation (Health Act 2006). Adequate arrangements for dealing with smokers' waste are provided within the smoking facilities. Electronic cigarettes are not permitted to be used or brought into operational areas (process, production, engineering, laboratories, warehouses and receipt / despatch yards).
4.8.7	All food brought into manufacturing premises by staff is appropriately stored in a clean and hygienic state. The site provides a fridge, freezer and other equipment to allow employees to prepare food as well as providing a subsidized canteen for breakfast and lunch. No food is permitted to be taken into storage, processing or production areas. Food consumption is only permitted within the designated canteen area.
4.8.8	A subsidized canteen including vending machines is provided on the premises, they are suitably controlled to prevent contamination of product (e.g. as a source of food poisoning or introduction of allergenic material to the site) and audited as per the internal audit schedule F209.

4.9 Chemical and Physical Product Contamination Control Raw Material Handling, Preparation, Processing, Packing and Storage Areas

Appropriate facilities and procedures are in place to control the risk of chemical or physical contamination of product.

4.9.1.1	Processes are in place to manage the use, storage and handling of non-food chemicals to prevent chemical contamination. These include as a minimum: ● an approved list of chemicals for purchase F104. ● availability of material safety data sheets and specifications ● confirmation of suitability for use in food processing environment ● avoidance of strongly scented products ● the labelling and/or identification of containers of chemicals at all times ● designated secure storage areas with restricted access to authorised personnel ● used by trained personnel only
4.9.1.2	Where strongly scented or tainted-forming materials have to be used, for instance for building works, a risk assessment will be completed and procedures put in place to prevent the risk of taint contamination of products.
4.9.2.1	There is a documented policy for the control of the use and storage of sharp metal implements including knives, cutting blades on equipment, needles and wires P3. This includes a record of inspection for damage and the investigation of any lost items F188. Snap-off blade knives must not be used on site.
4.9.2.2	The purchase of ingredients and packaging which use staples or other foreign-body hazards as part of the packaging materials will be avoided where possible; review documented in F337. Staples, paper clips and drawing pins must not be used in production area as specified in P1 GMP policy. Where other potential foreign bodies are included within ingredient or packaging materials, appropriate documented precautions are taken to minimise the risk of product contamination.
4.9.3.1	Glass or other brittle materials are excluded or protected against breakage in areas where open products are handled or there is risk of product contamination. Policy P2.
4.9.3.2	Documented procedures for handling glass and other brittle materials are in place 06MAN and implemented to ensure that necessary precautions are taken. Procedures include as a minimum: ● a list of items detailing location, number, type and condition ● recorded checks of condition of items, carried out at a specified frequency that is based on the level of risk to the product ● details on cleaning or replacing items to minimise potential for product contamination.
4.9.3.3	Documented procedure detailing the action to be taken in case of breakage of glass or other brittle items (OPL-GEN-MAN-29) is implemented and includes the following: ● training staff in the correct procedure ● quarantining the products and production area that were potentially affected ● cleaning the production area ● inspecting the production area and authorising to continue production ● changing of work wear and inspection of footwear ● specifying those staff authorised to carry out the above points ● recording the breakage incident. ● safely disposing of contaminated product
4.9.3.4	Where windows and roof glazing pose a risk to the product, glass windows are protected against breakage (Glass & plastics policy P2).
4.9.3.5	Only shatterproof light bulbs and strip lights, including those on electric fly-killer devices are used within process, production, engineering and warehouse areas (including offices that are attached to production areas).
4.9.4	The site does not use glass containers and therefore segregated storage is not required.
4.9.5.1	Wood policy P6. Wood is not permitted in tank 8/9 room. Wooden pallets are permitted within production areas as all packaging materials & drums are supplied on wooden pallets. The condition of pallets is checked on receipt to site if damage is identified, to the pallet, the materials are transferred to an alternative undamaged pallet before entering production areas.
4.9.6.1	Procedures are in place to prevent physical contamination of raw materials by raw material packaging F337 (e.g. during debagging and deboxing) OPL-LAB-63
4.9.6.2	Pens used in open product areas are company issued metal detectable pens that if they enter the product will be captured by the in-line product filter to minimise the risk of physical contamination.

4.10 Foreign-Body Detection and Removal Equipment

The risk of product contamination is reduced or eliminated by the use of in-line filters immediately prior to pasteurisation and the site indentified pre-requisite controls.

4.10.1.1	A documented assessment in association with the HACCP study is carried out on each production process step to identify potential foreign bodies risk and review the potential use of equipment to detect or remove foreign-body contamination. The products are all liquid with varying amounts of pulp, viscosity and cells; filters are used for product in-line prior to the pasteuriser at 2mm or 6mm depending on pulp and cell content. 1mm filters are also used in-line for incoming water and CIP lines. Sieves are in place within the openings to tank 8 and 9 and over rework bins Metal detection and X-ray equipment is not used due to the packaging materials which have an aluminium layer. X-ray on the packed cartons show that where the material is folded this increases the density which effects the image i.e. shadow areas in the base of the package and these areas are where any foreign body would be found. Magnets, optical sorting and other physical separation equipment are not suitable or appropriate for the raw ingredients or finished products.
4.10.1.2	The in-line product filters are immediately prior to the pasteuriser on each line so that they can be removed and checked without affecting the sterility of the product. The size of the filter is specified on each product's PI Sheet.
4.10.1.3	The site ensure that the frequency of checking filters is defined and takes into consideration: • Specific customer requirements • The site's ability to identify, hold and prevent the release of any affected materials, should the equipment fail. CIP filters checked daily. Water filters checked daily. Product in-line filter checked following production and recorded on F136, every shift and every filter size change on F187, before and after M&S production on F258. Corrective actions are implemented and reported to the Shift Coordinator / QIL in the event of a failure due to the condition of the filters which would include a combination of isolation, quarantine and re-inspection of all products produced since the last successful test / inspection.
4.10.1.4	Where foreign material is detected or removed by the equipment, the source of any unexpected material will be recorded on the relevant check sheet and on a deviation form that records the investigation findings. Information on rejected materials will be used to identify trends and where possible instigate preventative action to reduce the occurrence of contamination by the foreign material.
4.10.2.1	Filters and sieves used for foreign-body control are of a specified mesh size and designed to provide the maximum practical protection for the product. • Product - 2mm or 6mm depending on pulp and cell content. • In-coming water & CIP lines - 1mm • Tank 8 & 9 – 2mm • Rework bins – 1mm Material retained or removed are examined & recorded to identify contamination risks.
4.10.2.2	Filters and sieves are regularly inspected for damage on a documented frequency based on risk. Records are maintained of the checks. Where defective filters or sieves are identified this is recorded and the potential for contamination of products investigated & appropriate action taken.
4.10.3	Metal detection equipment is not used on site due to the nature of the packaging material and filtration is used as an alternative.
4.10.4	Magnets are not used on site.
4.10.5	Optical sorting equipment is not used on site.
4.10.6	Glass jars, cans and other rigid containers are no currently applicable to the site.

4.11 Housekeeping and Hygiene

Housekeeping and cleaning systems are in place to ensure appropriate standards of hygiene are maintained at all times and the risk of product contamination is minimised.

4.11.1	The premises and equipment are maintained in a clean and hygienic condition.
4.11.2	Documented cleaning procedures are in place and maintained for the building, plant and all equipment. Cleaning procedures for processing equipment and food contact surfaces as a

	minimum included the: • Responsibility for cleaning • Item/area to be cleaned • Frequency of cleaning • Method of cleaning, including dismantling equipment for cleaning purposes • Cleaning chemicals and concentrations • Cleaning materials to be used • Cleaning records and responsibility for verification The frequency and methods of cleaning are based on risk F350. The procedures are implemented with checks by Team Leaders and internal audits to ensure appropriate standards of cleaning are achieved. Food contact surfaces e.g. tanks, pasteurisers and fillers are checked following cleaning using ATP tests to confirm cleaning standard.
4.11.3	Rinse water or swabs from silos, product lines, tanks, pasteurisers fillers and product bins are checked to ensure ATP result is less than 300, no caustic or peracetic acid remains, pH is within +/-0.5 of the incoming water and no protein is present following a production run using milk as an ingredient. Where testing gives a result outside of the specification the equipment must be re-rinsed and retested and if necessary a complete CIP repeated. Equipment is not permitted to return to use unless results within specification have been obtained. Cleaning is included within the site prerequisite programme.
4.11.4	The resources for undertaking cleaning are made available, CIP and in-depth cleaning are scheduled and engineering support provided when required.
4.11.5	The cleanliness of equipment is checked before equipment is released back into production. The results of checks on cleaning, including visual, analytical & microbiological checks, are recorded & used to identify trends in cleaning performance & instigate improvements where required.
4.11.6	Cleaning equipment is: • Hygienically designed and fit for purpose • Suitably identified by colour and/or type for use (F164) • Cleaned and stored in a hygienic manner to prevent contamination; mixed colours, clean and dirty are not stored touching. Equipment used for allergen cleaning is green to ensure it is visually distinctive and dedicated for use where allergens have been present.
4.11.7.1	Cleaning in place (CIP) facilities are designed and constructed to ensure effective operation which is validated by: • Validation confirming the correct design and operation of the system • An up-to-date schematic diagram of the layout of the CIP system • Rinse water testing through ATP, pH and protein (external allergen testing validates allergen removal annually see Allergen plan) A schematic diagram of the layout of the CIP system including process piping circuits is available in the HACCP folder. There is an external inspection report that: • Systems are hygienically designed with no dead areas, limited interruptions to flow streams and good system drain ability • Scavenge/return pumps are operated to ensure that there is no build-up of CIP solutions in the vessels • Spray balls and rotating spray devices effectively clean vessels by providing full surface coverage and are periodically inspected for blockages. • CIP equipment has adequate separation from active product lines (e.g. through the use of double seat valves, manually controlled links, blanks in pipe work or make or break connections with proxy switches as interlocks) to prevent or safeguard against cross-contamination. Alterations or additions to the CIP system shall be authorised by the Technical Manager as part of the change control process (MAN12) before changes are made. Records of changes are maintained. Controls are in place to ensure cleaning is effective & chemicals have been removed prior to release to production, ensuring the CIP process is verified (does it work?) every CIP.
4.11.7.2	Limits of acceptable and unacceptable performance for key process parameters are defined to ensure the removal of target hazards (e.g. soil, allergens, micro-organisms, spores). At a minimum these parameters include: • times for each stage • detergent concentrations • flow rate and pressure • temperatures. These are validated and records of the validation maintained.

4.11.7.3	The CIP equipment is maintained and operated by suitably trained employees to ensure effective cleaning is carried out: • The process parameters, time, detergent concentrations, flow rate & temperatures are defined to ensure removal of the target hazard (e.g. soil, allergens, and vegetative microorganisms). This is validated (will it work?) & records of the validation maintained • Detergent concentrations are checked routinely • CIP process verification (does it work?) is undertaken by analysis of rinse waters and/or swabs for the presence of cleaning fluids, tests of ATP, allergens or micro-organisms as appropriate following each CIP. • Recovered post-rinse solutions are monitored for build-up of carry-over from the detergent tanks • Filters are cleaned and inspected daily • Where used, flexible hoses are stored hygienically when not in use, and inspected at a defined frequency to ensure that they are in good condition.
4.11.7.4	CIP facilities are monitored at a defined frequency based on risk. This includes: • monitoring of process parameters defined in clause 4.11.7.2 • ensuring correct connections, piping and settings are in place • confirming the process is operating correctly (e.g. valves opening/closing sequentially) • ensuring effective completion of the cleaning cycle • monitoring for effective results, including draining where required. Procedures define the action to be taken if monitoring indicates that processing is outside the defined limits.
4.11.8	Risk-based environmental monitoring programmes are in place for pathogens or spoilage organisms. At a minimum, these include all production areas with open & ready-to-eat products.
4.11.8.1	The design of the environmental monitoring programme is based on risk, and at a minimum include: • sampling protocol • identification of sample locations • frequency of tests • target organism(s) (e.g. pathogens, spoilage organisms and/or indicator organisms) • test methods (e.g. settle plates, rapid testing and swabs) • recording and evaluation of results. The programme and its associated procedures are documented.
4.11.8.2	Appropriate control limits are defined for the environmental monitoring programme.The company documents the corrective action to be taken when monitored results indicate a failure to meet a control limit, or when monitored results indicate an upward trend of positive results.
4.11.8.3	The company reviews the environmental monitoring programme at least annually and whenever there are: • changes in processing conditions, process flow or equipment • new developments in scientific information • failures of the programme to identify a significant issue (e.g. regulatory authority tests identifying positive results which the site programme did not) • product failures (products with positive tests) • consistently negative results (e.g. a site with a long history of negative results should review its programme to consider whether the correct parts of the factory are being tested, whether the testing is being conducted correctly, whether the tests are for the appropriate organisms, etc.).

4.12 Waste / Waste Disposal

Waste disposal is managed in accordance with legal requirements and to prevent accumulation, risk of contamination and the attraction of pests.

4.12.1	Waste is removed by licensed contractors and records of removal are maintained and available for audit.
4.12.2	Internal and external waste collection containers are managed to minimise risk. The compactors, skips, bins or containers are: • Clearly identified • Designed for ease of use and effective cleaning • Well maintained to allow cleaning • Emptied at appropriate frequencies • Covered or doors kept closed as appropriate • If there is potential for waste leakage spillage equipment will be used, supported by appropriate cleaning.

4.12.3	Unsafe products or substandard materials are emptied from labelled cartons on site, the contents (where safe to do so) are transferred to liquid waste tanks for collection to anaerobic digestion or animal feed and the packaging is compacted for recycling.

4.13 Management of Surplus Food and Products for Animal Feed

Effective processes are in place to ensure the safety and legality of by-products of the primary processing activity of the site.

4.13.1	Surplus customer-branded products are reprocessed where possible and permitted to do so. Where permitted Princes may use the 'Company Shop' for sale of surplus stock. The last option is for the cartons to be emptied on site, the contents (where safe to do so) are transferred to liquid waste tanks for collection to animal feed and the packaging is compacted for recycling.
4.13.2	Customer-branded products which do not meet specification are not sold to staff or passed on to charities or other organisations.
4.13.3	By-products and downgraded/surplus products intended for animal feed are segregated in liquid waste tanks and protected from contamination during storage. Products for animal feed are managed in accordance with relevant legislative requirements. No waste product is sent for animal feed at present waste products are sent for anaerobic digestion.

4.14 Pest Management

The whole site has effective pest management programme in place to minimise the risk of infestation and there are resources available to respond rapidly to any issues which occur to prevent risk to products.

4.14.1	If pest activity is identified it must not present a risk of contamination to products, raw materials or packaging. The presence of any infestation on site will be identified in pest management records and be part of an effective pest control programme to eliminate or manage the infestation such that it does not present a risk to products, raw materials or packaging.
4.14.2	The site contracts the services of a competent pest control organisation, for the regular inspection and treatment of the site to deter and eradicate infestation. The frequency of inspections is determined by risk assessment and is documented. The risk assessment is reviewed whenever: • There are changes to the building or production processes which could have an impact on the pest management programme • There has been a significant pest issue. The services of a pest control contractor are detailed in GEN05 which clearly defines and reflects the activities of the site. Service provision meets with all applicable regulatory requirements.
4.14.3	The contractor effectively demonstrates that: • Pest control operations are undertaken by trained & competent staff with sufficient knowledge to select appropriate pest control chemicals & proofing methods & understand the limitations of use, relevant to the biology of the pests associated with the site • pest control activities meet any legal requirements for training or registration • Sufficient resources are available to respond to any infestation issues • There is ready access to specialist technical knowledge when required • Legislation governing the use of pest control products is understood • Pesticides are stored off site and bait boxes on site are secure.
4.14.4	Pest control documentation and records are maintained and includes as a minimum: • An up to date plan of the full site, identifying numbered pest control device locations • Identification for the baits and/or monitoring devices on site • Clearly defined responsibilities for site management and for the contractor • Details of pest control products used, including instructions for their effective use and action to be taken in case of emergencies • Any observed pest activity • Details of pest control treatments undertaken Records are kept on paper as a hard copy within the pest management file.
4.14.5	Bait stations or other rodent monitoring or control devices are appropriately located, secured and maintained to prevent contamination risk to product. Toxic rodent baits are not used within production areas or where open ingredients/product is present except when treating an active infestation. Where toxic baits are used, these are secured. Any missing bait stations is recorded, reviewed and investigated.
4.14.6	Insect / fly-killing devices, pheromone traps and/or other insect monitoring devices are correctly sited and operational. Apple juice in wasp pots are used during wasp season instead of pheromone traps as this has been found to be more effective on this site. The wasp pots are not

	used during colder months where wasps are not a risk. If there is a danger of insects being expelled from a fly-killing extermination device and contamination the product, alternative systems and equipment will be used.
4.14.7	The site has adequate measures in place to prevent birds from entering buildings or roosting above loading or unloading areas.
4.14.8	In the event of infestation, or evidence of pest activity, immediate action is taken to identify at-risk product and to minimise the risk of product contamination. Any potentially affected products will be subject to the non-conforming product procedure.
4.14.9	Records of pest management inspections, pest proofing, hygiene recommendations and actions taken are maintained. Identified actions are discussed in the weekly meeting and logged on the Pest Control Actions log for the year with agreed responsibilities for action closure and timescales to ensure actions are carried out in a timely manner.
4.14.10	The pest management process is audited internally every three months with a six monthly review with the contractor. In addition an in-depth, documented pest control survey is undertaken by the pest control expert from the contractor a minimum of annually unless the risk changes based on trends, reviews or changes to site to review the pest control measures in place. The survey; o Provides an in-depth inspection of the facility for pest activity o Review the existing pest control measures & make recommendations for change. No risk of stored product insects has been identified but if this becomes applicable then the timing of the survey shall be such as to allow access to equipment for inspection.
4.14.11	Results of pest control inspections are assessed and analysed for trends during the six monthly reviews. Additional reviews of trends would be implemented in the event of an infestation. The analysis includes the results from trapping and monitoring devices to identify problem areas and the analysis is used as a basis for improving the pest management procedures.
4.14.12	Employees are trained to understand the signs of pest activity and be aware of the need to report any evidence of pest activity to a designated manager as part of the site induction and annual refresher training.

4.15 Storage Facilities

All facilities used for the storage of raw materials, packaging, in-process products and finished products are suitable for purpose. P7 Warehouse Storage Policy. MP11.

4.15.1	P7 Warehouse Storage Policy is in place to maintain product safety and quality during storage based on the risks identified within the HACCP risk assessments. Site procedures include, as appropriate: • managing chilled and frozen product transfer between temperature-controlled areas • segregation of products where necessary to avoid cross-contamination (physical, microbiological or allergens) or taint uptake • storing materials off the floor and away from walls • specific handling or stacking requirements to prevent product damage.
4.15.2	Where appropriate, packaging is stored away from other raw materials within Unit 72. Finished product is stored within Unit 69 warehouse. Any part-used packaging materials suitable for use are suitably protected e.g. part reels re-wrapped with stretch pallet wrap – reel label is reapplied to reel maintaining traceability before being returned to unit 72. Obsolete packaging must be quarantined and labelled for clear identification. The obsolete packaging must be collated in one area within unit 72 for disposal to prevent accidental use.
4.15.3	Temperature controlled storage of finished product is not currently required, all products are ambient. Chilled storage is used for aromas to maintain the quality of the concentrate / aromas and meet manufacturer's storage requirements. The temperature is monitored daily and recorded on F434
4.15.4	Controlled atmosphere storage is not required on site.
4.15.5	Drums, IBC's and flasks are stored outside. Concentrates are protected from contamination and deterioration by container liners. Tamper evident seals are removed before transferred into process areas to prevent foreign bodies. Container lids are cleaned prior to movement into Process as per PRO33 and checked by the Process Operator prior to lid removal.
4.15.6	The site facilitates correct stock rotation of raw materials, intermediate products and finished products in storage and ensures materials are used in the correct order in relation to their manufacturing date and within the prescribed shelf-life. Finished product is rotated by Best Before Date. Raw materials are rotated by date delivered to site and shelf-life.

4.16 Dispatch and Transport

Procedures are in place to ensure that the management of dispatch and of the vehicles and containers used for transporting products from the site do not present a risk to the safety, security or quality of the products. P11.

4.16.1	Documented procedures to maintain product safety and quality during loading and transportation have been developed and implemented. Including the following (if applicable): o Securing loads on pallets to prevent movement during transit o Inspection of loads prior to dispatch o controlling temperature of loading dock areas and vehicles (not currently applicable) o the use of covered bays for vehicle loading or unloading (not currently applicable)
4.16.2	All vehicles or containers used for the transport of raw materials and the dispatch of product are inspected prior to off-loading / loading OPL-GEN-MAN-12 to ensure that they are fit for purpose. This ensures that they are: o In a clean condition o Free from strong odours which may cause taint to products o In a suitable condition to prevent damage to product during transit o Equipped to ensure any temperature requirements can be maintained throughout transportation (not currently applicable) Records of inspections are maintained on the delivery / despatch note.
4.16.3	All production is ambient and no temperature control is required. If temperature control is required in the future, the transport will be capable of maintaining product temperature within specification, under minimum and maximum load. Temperature data-logging devices which can be interrogated to confirm time/temperature conditions or a system to monitor and record at predetermined frequencies the correct operation of refrigeration equipment will be implemented, used and records maintained.
4.16.4	Delivery and despatch vehicles are not owned or operated by Princes Ltd. Equipment used for loading and unloading is maintained under contract and records of inspections and maintenance are maintained. Checks for safety and cleaning are carried on the fork lift trucks and recorded at the start of each shift prior to use.
4.16.5	Products transported by logistics firms arranged by Princes; o Must not be transported in mixed loads with allergens (the only exception is where products produced by Princes contain evaporated milk) or any non-food or potentially tainting products o Products must be kept secure during transit, particularly when vehicles are parked and unattended o In the case of vehicle breakdown (including refrigeration if applicable) or accident; Rhys Davies must be informed immediately by the driver and then suitable actions to be taken to ensure that the safety of the products is assessed, agreed and recorded between Princes and Rhys Davies. Where the customer arranges the transport the customer will agree any specific requirements and mixed load restrictions with their logistics contractor.
4.16.6	Third-party contractors used by Princes, annually sign a statement of agreement that they will meet the requirements specified in the BRC section 4.16 and where available they will supply a certificate for the Global Standard for storage and distribution or similar GFSI-recognised scheme. Where a certificate is not available the standard of service will be verified annually.

5 Product Control

5.1 Product Design / Development

Product design and development procedures are in place for new products, processes and any changes to product, packaging or manufacturing processes to ensure that safe and legal products are produced. Product design and development is completed by the new product development (NPD) department based at BRC certified sister Princes site at Bradford and the copy of their BRC certificate is kept on file. Information provided by NPD is reviewed on F182

5.1.1	The site provides clear guidelines on any restrictions to the scope of new product developments to control the introduction of hazards which would be unacceptable to the site or customers (e.g. the introduction of allergens, glass packaging or microbiological risks) through P8.

5.1.2	All new products, changes to product formulation and required processing are reviewed for potential food safety risks by the NPD department. The findings of the review are communicated to the site Technical Department where they are reviewed prior to site documentation being created. New packaging or methods of processing are reviewed through the modification assessment form F12 and the HACCP review form F191 and formally approved by the HACCP team leader / Technical Manager or authorised HACCP committee member. This shall ensure that hazards have been assessed and suitable controls, identified through the HACCP system, are implemented. This approval must be in place before products are produced.
5.1.3	Trials using production equipment are carried out where it is necessary to validate that product formulation and manufacturing processes are capable of producing a safe product of the required quality or required by the customer.
5.1.4	Shelf-life trials are undertaken using documented protocols reflecting conditions experienced during storage, transport and handling. Results are recorded, retained and confirm compliance with relevant microbiological, chemical and organoleptic criteria F340. Full shelf-life trials prior to production are impractical (shelf-lives are between 6 and 12 months) and therefore initial shelf-life is based on similar products within the same packaging format, processed under the same conditions; shelf-life testing for new products starts from either trial or first production run (F336).

5.2 Product Labelling

Product labelling is managed by the product launch team based in head office and complies with the appropriate legal requirements and contains information to enable the safe handling and storage of the product by the customer

5.2.1	All products are labelled to meet legal requirements for the designated country of use and include information to allow the safe handling, storage and use of the product by the customer/consumer. The ingredient and allergen labelling is reviewed and approved by the NPD team and customer based on the product recipe and ingredient specifications. Where specified by the customer nutritional testing is completed at the frequency specified following trial and launch.
5.2.2	The NPD process ensures that labelling information is reviewed whenever changes occur to: • the product recipe • raw materials • the supplier of raw materials • the country of origin of raw materials • legislation Raw material purchase is based on agreed specifications to prevent changes to product labelling. The NPD team maintain a tracker of packaging that states the ingredient country of origin which is found on the shared drive \\princes.co.uk\coredata\Data\Groups\Supply\Manufacturing Sites\Bradford\Teams\Site Procedures\NPD Procedures\GBF_817 Master Provenance List.xlsx
5.2.3	Where a product is designed to enable a claim to be made to satisfy a consumer group (e.g. a nutritional claim, reduced sugar), the company ensures that the product formulation and production process is fully validated to meet the stated claim e.g. Vitamin C is monitored during production and at end of life.
5.2.4	Where the label information is the responsibility of a customer or a nominated third party Princes provide information: • to enable the label to be accurately created, • whenever a change occurs which may affect the label information.
5.2.5	The products produced on site do not require cooking instructions.

5.3 Management of Allergens

The site has an Allergen management plan (Allergen-01) which minimises the risk of allergen contamination of products and meets legal requirements for labelling in the country of sale.

5.3.1	The site carries out an assessment of raw materials to establish the presence and likelihood of contamination by allergens this includes a review of raw material specifications and obtaining additional information from suppliers through questionnaires to understand the allergen status of the raw material, its ingredients and the factory in which it is produced.
5.3.2	The company identifies and lists allergen-containing materials handled on site (UHT Evaporated milk, red grape concentrate and white grape concentrate). This includes raw materials and finished products, and any new product development ingredients or products. Processing aids and intermediate products are not used on site.

5.3.3	A documented risk assessment is carried out to identify routes of contamination and establish documented policies and procedures for handling raw materials and finished products to ensure cross-contamination is avoided. This includes: • consideration of the physical state of the allergenic material (liquid) • identification of potential points of cross-contamination (cross-contact) through the process flow • assessment of the risk of allergen cross-contamination (cross-contact) at each process step • identification of suitable controls to reduce or eliminate the risk of cross-contamination (cross-contact).
5.3.4	Documented procedures are established to ensure the effective management of allergenic materials to prevent cross-contamination (cross-contact) into products not containing the allergen. These include: • Segregation of raw ingredients MAN03 • allergen production run directly prior to a full CIP • dedicated uplift lance and hose for allergen uplift • green allergen specific cleaning equipment • allergen specific tools • disposable aprons for wearing when handling allergens • waste handling and spillage controls • Restrictions on food brought onto site by staff, visitors, contractors and for catering purposes.
5.3.5	The product containing milk allergen is not permitted to be reworked (stated on product PI sheet) therefore ensuring rework containing allergen is not used in a product that does not already contain the allergen. (Red Grape and White Grape only contain an allergen when in concentrated form.
5.3.6	Alibi labelling is not used by the site as controls have been verified to ensure allergens are not present following existing controls.
5.3.7	The site does not currently make any claims regarding the suitability of a food for allergy or food sensitivity sufferers; if this situation was to change, the site will ensure that the production process is fully validated to meet the stated claim and the effectiveness of the process is routinely verified and documented.
5.3.8	Equipment and area cleaning procedures are designed to remove or reduce to acceptable levels any potential cross-contamination by allergens. The cleaning methods are validated to ensure they are effective and the effectiveness of the procedure routinely verified by site, each clean and through external testing annually. Cleaning equipment used to clean allergenic materials is identifiable and specific for allergen use.

5.4 Product Authenticity, Claims and Chain of Custody

Systems are in place to minimise the risk of purchasing fraudulent or adulterated food raw materials and to ensure that all product descriptions and claims are legal, accurate and verified.

5.4.1	The company has processes in place to access information on historical and developing threats to the supply chain which may present a risk of adulteration or substitution of raw materials (i.e. fraudulent raw materials). Information comes from sources including: • BSDA • RSSL • Campden Food RA • Weekly food news • Eurofins • FDA
5.4.2	A documented vulnerability assessment is carried out on all food raw materials or groups of raw materials to assess the potential risk of adulteration or substitution. This takes into account: • historical evidence of substitution or adulteration • economic factors which may make adulteration or substitution more attractive • ease of access to raw materials through the supply chain • sophistication of routine testing to identify adulterants • nature of the raw material. The vulnerability assessment is kept under review to reflect changing economic circumstances and market intelligence which may alter the potential risk. The assessment is formally reviewed a minimum of annually.

5.4.3	Where raw materials are identified as being at particular risk of adulteration or substitution, frequency of testing and the supplier / manufacturer's approval status will be reviewed as well as recording of appropriate assurance and/or testing processes to mitigate the identified risks (vulnerability assessment plan).
5.4.4	Where products are labelled or claims are made on finished packs which are dependent on a status of a raw material including: • specific provenance or origin • breed/varietal claims • assured status (e.g. GlobalGAP) • genetically modified organism (GMO) status • identity preserved • named specific trademarked ingredients the status of each batch of the raw material will be verified. Each manufacturer's batch of raw material is checked by review of the certificate of analysis e.g. Organic, Halal, Floridian The site maintains purchasing records on SAP, traceability of raw material usage and final product packing records to substantiate claims. The site undertakes documented mass balance tests at a frequency to meet the particular scheme requirements as per the internal audit schedule F209 or at least every 6 months (F456).
5.4.5	Where claims are made about the methods of production (e.g. organic, Halal) the site maintains the necessary certification status in order to make such a claim.
5.4.6	The process flow for the production of products where claims are made are documented and potential areas for contamination or loss of identity identified. Appropriate controls are established to ensure the integrity of the product claims.
5.4.7	The procedure for ensuring the purchased products conform to specified requirements has been documented and is contained in the management procedure for purchasing of raw materials and services MP04.

5.5 Product Packaging

Product packaging is appropriate for the intended use and are stored under conditions to prevent contamination and minimise deterioration.

5.5.1	When purchasing or specifying food contact packaging the supplier of packaging materials are made aware of any particular characteristics of the food (e.g. pH <4.0 ambient juice) which may affect packaging suitability. Certificates of conformity or other evidence is available for product packaging to confirm it complies with relevant food safety legislation and is suitable for its intended use.
5.5.2	Product liners or bags purchased by the company for use in direct contact with ingredients, or work in process, will be coloured (blue) and resistant to tearing to prevent accidental contamination. The specification and food contact declaration for bags used for dry ingredient weighing are kept in the HACCP file (PRP09).
5.5.3	Obsolete packaging (including labels) are managed by the site Control of Non-conforming product procedure GEN04 which triggers the completion of F211 to: • prevent accidental use of obsolete packaging • control and disposal of obsolete packaging • appropriate disposal of obsolete printed materials (e.g. rendering trademarked materials unusable)

5.6 Product Inspection and Laboratory Testing

The company undertake or subcontract inspection and analyses which are critical to confirm product safety, legality and quality, using appropriate procedures, facilities and standards MP06.

5.6.1.1	The scheduled programme of testing covering products and the processing environment, which includes microbiological, chemical, physical and organoleptic testing according to risk is documented in OPL-LAB-01. The methods, frequency and specified limits are documented.
5.6.1.2	Test and inspection results are recorded on appropriate forms and reviewed regularly to identify trends. The significance of external laboratory results is understood and acted upon accordingly. Appropriate actions are implemented promptly to address any unsatisfactory results or trends.
5.6.1.3	The site ensures that a system of on-going shelf-life assessment is in place. The shelf-life assessments are based on risk (e.g. products declaring vitamin C on the carton are tested at the end of life for vitamin C levels) and include sensory analysis and, as applicable, microbiological testing and relevant chemical factors such as pH. Records and results from shelf-life tests verify the shelf-life period indicated on the product. OPL-LAB-42

5.6.1.4	In the event of equipment failure or staffing shortage e.g. sickness or absence, the QI Leader will be notified and effects on previously packed products and future options will be assessed and as actioned as required.
5.6.2.1	Pathogen testing is not currently completed by the site, water and customer complaint investigation testing is subcontracted to an external laboratory.
5.6.2.2	The site routine testing laboratories are located, designed and operated to eliminate potential risks to product safety. Controls are implemented and include: • Separate drainage and ventilation systems which do not pass through or under the production area. • Secure access into unit 68 and the laboratory • Restricted access to the microbiological laboratory with coat change and hand-wash • Processes for obtaining product samples • Disposal of laboratory waste.
5.6.2.3	The microbiological laboratory is certificated to Campden Laboratory Accreditation scheme for the monitoring for the presence of yeast and moulds. External microbiological testing laboratories are checked to ensure suitable accreditations are in place & current. Authenticity testing is completed by Eurofins which are certified to COFRAC.
5.6.2.4	Internal and external proficiency testing is carried out to ensure reliability of laboratory results along with, • recognised test methods, are used where available • documented testing procedures are maintained • staff are suitably qualified and/or trained and competent to carry out the analysis required • use of appropriately calibrated and maintained equipment.
5.6.2.5	The significance of laboratory results is understood and acted upon accordingly. Appropriate action is taken promptly to address any unsatisfactory results or trends. Where legal limits apply, these are understood and appropriate action taken promptly to address any exceedance of limits.

5.7 Product Release

Finished products are released once all CCPs have been completed satisfactorily and the pallet label has been applied.

5.7.1	Currently no products are positively released.

5.8 Pet Food – Not applicable to this production site

6 Process Control

6.1 Control of Operations

The site operates documented procedures and/or work instructions that ensure the production of consistently safe and legal product with the desired quality characteristics, in full compliance with the HACCP food safety plan (MP09).

6.1.1	Documented process specifications and work instructions are available for the key processes in the production of products to ensure product safety, legality and quality. The specifications / procedures include: • recipes-including identification of any allergens • mixing instruction, speed, time (if applicable) • equipment process settings (pasteurisation temperature and flow) • cooking times and temperatures (if applicable) • cooling times and temperatures (if applicable) • labelling instructions • coding and shelf-life marking • labelling, coding and shelf-life marking • any critical control points identified in the HACCP plan. Process specifications are be in accordance with the agreed finished product specification
6.1.2	Where equipment settings are critical to the safety or legality of the product, changes to the equipment settings can only be completed by trained and authorised staff. Where applicable, controls are password-protected or otherwise restricted.
6.1.3	Process monitoring, such as pasteurisation temperature and flow rate (time), is implemented, adequately controlled and recorded to ensure that product is produced within the required process specification.
6.1.4	Pasteurisation process parameters are controlled by in-line monitoring devices and are linked to an automatic divert system which is checked at least every CIP (60 hours) when production line is in operation.
6.1.5	Variation in pasteurisation processing conditions may occur within equipment critical to the safety or quality of products, the processing characteristics are validated and verified by continued monitoring of microbiological yeast and moulds testing, holding times are checked annually and pasteuriser integrity checked quarterly.
6.1.6	In the case of equipment failure or deviation of the process from specification, procedures are in place to establish the safety status and quality of the product to determine the action to be taken reference MAN06.

6.2 Labelling and Pack Control

The management controls of product labelling activities ensure that products will be correctly labelled and coded.

6.2.1	Packaging is collected from unit 72 in advance of production and placed in running order in the unit 68 kanban area. The packaging is brought to the line and placed in the filler as part of the changeover process PROD35. Currently there is no off-line coding or printing of packaging materials. If off-line coding or printing is required the following will be considered: • setting and amendments to the printed parameters (e.g. the input of, or changes to, date code(s) only being completed by an authorised member of staff • controls being in place to ensure that only correctly printed materials are available at the packing machines.
6.2.2	Documented checks of the production line are carried out before commencing production and following changes of product. These checks ensure that lines have been suitably cleared of the previous product prior to changing to the next product and equipment is ready for production and documented on F195. Tetra sleeve reels cannot be fully removed as the previous and next product reels have to be spliced together, but the splice section is automatically rejected by the filler and the 1st carton is tested by the laboratory.

6.2.3	Documented procedures are in place to ensure that products are packed into the correct packaging and correctly labelled. Checks are completed: • at the start of packing • on change-over, • on each reel change, and • end of each production run The checks include verification of the carton coding printed at the packing stage including: • date coding • batch coding If the printing requirements carried out on site changes to include the following then verification will be introduced: • quantity indication • pricing information • bar coding • country of origin • allergen information.
6.2.4	Currently no on-line vision equipment is used as the primary check of product labels and printing. Where online verification equipment (e.g. bar code scanners) is introduced as the primary check of product labels and printing, the site will establish and implement procedures for the operation and testing of the equipment to ensure that the system is correctly set up and capable of alerting or rejecting product when packaging information is out of specification. At a minimum, testing of the equipment shall be completed at: • the start of the packing run • the end of the packing run • a frequency based on the site's ability to identify, hold and prevent the release of any implicated materials should the equipment fail (e.g. during the packing run or when changing batches of packaging materials). The site currently operates a documented and trained manual checking procedure which will be able to be used in the event of a failure in the any online verification equipment.

6.3 Quality – Weight, Volume and Number Control

The site operates a quantity control system which conforms to legal requirements in the country where the product is sold and any additional industry sector codes or specified customer requirements.

6.3.1	The frequency and methodology of quantity checking meets the requirements of appropriate legislation governing quantity verification, and records of checks are retained.
6.3.2	Products produced on site are governed by legislative requirements.
6.3.3	The site does not currently use online check weighers. In the event that online check weighers were introduced the following would be included in the establishing of procedures for the operation and testing of online check weighers: • consideration of any legal requirements • responsibilities for testing the equipment • operating effectiveness and any variations for particular products • methods and frequency of testing the check weighers • records of the test results.

6.4 Calibration and Control of Measuring and Monitoring Devices

The site can demonstrate that measuring equipment is sufficiently accurate and reliable to provide confidence in measurement results MP05.

6.4.1	The site identifies and controls measuring equipment used to monitor critical control points, product safety, legality and quality; and is summarised in the calibration register (F180) including as a minimum: • A documented list of equipment and its location • An identification code and calibration due date Equipment is prevented from adjustment by unauthorised staff through password protection or secure cabinets. Equipment is protected from damage, deterioration or misuse as far as possible e.g. through water-proofing and barriers.

6.4.2	All identified measuring devices, including new equipment, are checked and where necessary adjusted: • At a predetermined frequency, based in risk assessment • To a defined method traceable to a recognised national or international standard where possible. Results are documented. Equipment must be readable and be of a suitable accuracy for the measurements it is required to perform.
6.4.3	Reference measuring equipment is calibrated and traceable to a recognised national or international standard and records maintained. The uncertainty of calibration is considered when equipment is used to assess critical limits.
6.4.4	Procedures are in place to record actions to be taken when the prescribed measuring devices are found not to be operating within specified limits (MAN06 deviation). Where the safety or legality of products is based on equipment found to be inaccurate, action are taken to ensure at-risk product is not offered for sale and the quarantine procedure is followed MP10 / GEN04.
6.4.5	Any changes that could influence measurement uncertainty of MCERTS effluent flow meter need to be captured, recorded, assessed for their significance, and suitable action taken to ensure measurement uncertainty is maintained, This should be documented following MAN12 change management. Verification of the MCERTS effluent meter will be carried out by comparison of 'indicated flow' against 'expected flow'. This comparison will indicate any possible errors in the flow measurement.

7 Personnel

7.1 Training: Raw Material Handling, Preparation, Processing, Packing and Storage Areas

Princes ensure that all personnel performing work that affects product safety, legality and quality are demonstrably competent to carry out their activity, through training, work experience or qualification MP1.

7.1.1	All personnel, including agency-supplied staff, temporary staff and contractors, are appropriately trained prior to commencing work and adequately supervised throughout the working period. Appropriate training includes training relevant to the areas in which they work, the tasks they are to perform, the equipment they are to operate and physical and chemical agents to which they will be exposed as identified by the risk assessment process and taking into account Legal and company requirements. Training can be provided in various methods based on the requirement e.g. traditional classroom, video, meetings, briefings, tool box talks, on the job and web based.
7.1.2	Where personnel are engaged in activities relating to critical control points, relevant training and competency assessment takes place.
7.1.3	The site has in place documented programmes covering the training needs of relevant personnel. These include as a minimum: • identifying the necessary competencies for specific roles • providing training or other action to ensure staff have the necessary competencies • reviewing the effectiveness of training • delivery of training in the appropriate language of trainees (all employees are able to understand and read English).
7.1.4	All relevant personnel, including engineers, agency-supplied staff and temporary staff and contractors, receive general allergen awareness training and are trained in the relevant allergen-handling procedures.
7.1.5	All relevant personnel, including agency-supplied staff, temporary staff and contractors, receive training on the site's labelling and packing processes which are designed to ensure the correct labelling and packing of products.
7.1.6	Records of all training are available (F275). This include as a minimum: • the name of the trainee and confirmation of attendance • the date and duration of the training

	• the title or course contents, as appropriate • the trainer or training provider. • For internal courses, a reference to the material, work instruction or procedure that is used in the training Where training is undertaken by agencies on behalf of the company, records of the training are available from the agency.
7.1.7	Princes carryout an annual review of the competencies of its staff and provides training as appropriate. This may be in the form of training, refresher training, coaching, mentoring or on-the-job experience

7.2 Personal Hygiene: Raw Material Handling, Preparation, Processing, Packing and Storage Areas

The site's personal hygiene standards are developed to minimise the risk of product contamination from personnel, are appropriate to the products produced and adopted by all personnel, including agency-supplied staff, contractors and visitors to the production facility.

7.2.1	The requirements for personal hygiene are documented P1 and communicated to all personnel. Compliance with the requirements is checked routinely through hygiene audits. P1 GMP policy contains as a minimum the BRC requirements: • watches shall not be worn • jewellery shall not be worn, with the exception of a plain wedding ring, wedding wristband or medical alert jewellery • rings and studs in exposed parts of the body, such as ears, noses and eyebrows, shall not be worn • fingernails shall be kept short, clean and unvarnished • false fingernails and nail art shall not be permitted • excessive perfume or aftershave shall not be worn.
7.2.2	Hand-washing must be performed on entry to the production areas and at a frequency that is appropriate to minimise the risk of product contamination
7.2.3	All cuts and grazes on exposed skin must be covered by a blue metal detectable plaster and Where applied to hands, fingers or thumb the plaster must be covered with a disposable glove. Plasters are issued and monitored F184.
7.2.4	Metal detection equipment is not used. Filters in-line are 6mm or less and a plaster could not pass through this immediately prior to pasteurisation.
7.2.5	Processes and written instructions for staff to control the use and storage of personal medicines, so as to minimise the risk of product contamination are documented in P1.

7.3 Medical Screening

Princes have procedures in place to ensure that employees, agency staff, contractors or visitors are not a source of transmission of food-borne diseases to products.

7.3.1	The site makes employees aware of the symptoms of infection, disease or condition which would prevent a person working with open food. The site has the employee agreement which enables notification by employees, including temporary employees, of any relevant symptoms, infection, disease or condition with which they may have been in contact or be suffering from.
7.3.2	Where there may be a risk to product safety, visitors and contractors are made aware of the types of symptoms, infection, disease or condition which would prevent a person visiting production areas. Visitors are required to complete a health questionnaire prior to entering the raw material, preparation, processing, packing and storage areas
7.3.3	The action to be taken where they may be suffering from or have been in contact with an infectious disease is stated in F11. Expert medical advice can be sought from the occupational health provider where required.

7.4 Protective Clothing: Employees or Visitors to Production Areas

Suitable site-issued protective clothing is worn by employees, contractors or visitors working in or entering production areas as described in P10.

7.4.1	The company documents and communicate to all employees (including agency and temporary personnel), contractors and visitors the rules regarding the wearing of protective clothing in specified work areas. This includes policies relating to the wearing of protective clothing away from the production environment (e.g. removal before entering toilets, use of canteen and smoking areas).
7.4.2	Protective clothing is available that: • its provided in sufficient numbers for each employee and is of suitable design to prevent contamination of the product (as a minimum containing no external pockets above the waist or sewn-on buttons) • fully contains all scalp hair to prevent product contamination includes snoods for beards and moustaches, where required, to prevent product contamination
7.4.3	Laundering of protective clothing takes place by an approved contractor, using defined criteria to validate the effectiveness of the laundering process. The laundry must operate procedures which ensure: • adequate segregation between dirty and cleaned clothes as well as specific area coats (e.g. microbiological Howie coats, engineering coats) and production work-wear. • effective cleaning of the protective clothing • cleaned clothes are supplied protected from contamination until use by the use of delivery bags and clean work-wear lockers Washing of protective clothing by the employee is covered within P10.
7.4.4	Protective clothing must be changed at an appropriate frequency, e.g. following allergen production or when not visible clean.
7.4.5	If where gloves are used, they are to be replaced regularly. Gloves are suitable for food use, of a disposable type, of a distinctive colour (blue where possible), be intact and not shed loose fibres unless specific gloves are required e.g. chemical resistant or heat resistant.
7.4.6	Where items of personal protective clothing that are not suitable for laundering are provided (such as base-ball hats), these will be cleaned or replaced based on condition and cleanliness.

8 Environment

Suitable procedures are in place to ensure requirements of ISO14001:2015 are met and the site environment risks are controlled, with compliance with Environment Permit BX82891W.

8.1 Environmental Aspects, Context, Leadership and Commitment.

MP17 has been documented to define how environmental aspects are identified and how these aspects are rated for significance and considered when setting environmental objectives.

8.1.1	Environmental aspects are identified for processing and packaging of fruit juice and juice drinks at the Cardiff site, and also include indirect aspects such as delivery and packaging of final product raw materials, activities, products. This includes services that it can control and influence and their associated environmental impacts, considering a life cycle perspective. Where Princes Cardiff have control or influence over services and systems the aim will be to improve the environment performance.
8.1.2	The identified aspects are determined for significance using a risk and likelihood scoring system as detailed in MP17. The findings of the scoring system provide the basis for continual site improvement.
8.1.3	Identified significant effects are used as a basis for planning improvement actions and targets as detailed in the Management Procedure for setting site objectives and targets MP18.
8.1.4	The EHS Manager will ensure that MP17 is followed and the relevant records and objectives updated wherever changes are identified.
8.1.5	If external bodies require information regarding these impacts then the EHS Manager will control communication referring to the General Manager and Group EHS Manager as necessary.
8.1.6	The Group EHS Manager attends external meetings and ensures the site EHS Manager is made aware of any changes to relevant legislation. (MP19)
8.1.7	The site operates an environmental management system to ensure legislation is complied with on a continuing basis; process detailed in MP19.
8.1.8	The site has an environmental permit which is monitored by the Natural Resources Wales through site visits, annual returns and regular reporting of improvements and/or changes.

	Changes which affect the environmental permit must be reported to Natural Resources Wales and a variation to the environment permit may be necessary before the changes can be made. Change control process described in MAN12 and recorded on F95.
8.1.9	The environmental permit requires that the facility trade effluent discharge is monitored by an MCERTS effluent flow monitor which has an MCERTS inspection and audit completed annually to maintain compliance with SIRA requirements.(MP36).
8.1.10	Princes Cardiff has considered the important environmental issues that can affect, either positively or negatively, the way the organisation manages it environmental responsibilities. This has been carried out to continually improve the integrated management system (QSHEM).
8.1.11	Princes Cardiff has an understanding of the needs and expectations of relevant internal and external interested parties (SHE 06 and SHE 10) and which of these needs and expectations are, or could become, legal requirements.
8.1.12	Princes Cardiff has determined the scope of the environmental section of the integrated management system (QSHEM). The boundaries of the Princes Cardiff operation are the Princes Cardiff activities, products and services.
8.1.13	Princes Cardiff has established leadership values, have trained and will continue to educate employees in leadership. Princes Limited will continue to develop the business to produce a continually environmental impact
8.1.14	Princes Cardiff monitors KPi performance and reviews this against objectives and targets as part of the daily, weekly & monthly meetings in addition to the Management Review, which enables prompt reaction to developing trends.

8.2 Communication

The site Quality, Safety, Health and Environment policy is displayed in reception and in the employee entrance of unit 68.

8.2.1	All external communication relevant to the site's Environment Management System or Health and Safety Management System shall be directed via the site EHS Manager as the site's EHS management representative. All external communication relevant to the site Quality Management System shall be directed to the site Technical Manager as the site's quality management representative.
8.2.2	Procedures for addressing complaints or queries have been documented and are contained within the Management Procedure for Environmental Complaints MP20.
8.2.3	Communication of QSHE activities and issues are provided via the scheduled meetings, emails, briefings, tool box talks, notice boards, KPi's and UK EH&S web page.

9 Health and Safety

Suitable procedures are in place to ensure requirements of OHSAS 18001:2007 / ISO45001:2018 are met and the site does not pose a risk to the employees, contractors or visitors.

9.1 Health and Safety Self Inspections, Hazard Identification, Risk Assessment and Hazard Control

A risk management approach through routine inspection and weekly evaluation of working conditions is completed recording on the Princes Group audit form. Inspections proactively anticipate, recognise and evaluate hazards (direct and indirect) and potential contributing causes to adverse working conditions.

9.1.1	The Health & Safety Risk Assessment process (MP24 and CAR-HS-MP-07) systematically identifies hazards posed to persons and the environment considering any further control measures necessary. Risk assessments are reviewed and modified when any change occurs in the facility or as a result of an accident, an incident, dangerous occurrence or an employee concern.
9.1.2	**Normal Conditions** The site effectively and systematically identifies hazards, assesses the risks they pose to human health & safety and applies appropriate control measures as per EHS2.01. Required control measures are incorporated into the site MPs, SOPS and OPLs. All risk assessments are documented using the Princes Dynamic Risk Tool FR01 and reviewed as per the defined timescale.
9.1.3	**Accident / Incident**

	The site reviews the relevant risk assessments whenever accidents or incidents occur and applies further control measures where appropriate and amends the site SOPs and OPLs where appropriate. CAR-HS-MP11 procedure is in place for the reporting and investigation of all accidents and incidents. The outcomes of investigations are discussed during daily & weekly meetings to enable appropriate involvement in the implementation of appropriate countermeasures.
9.1.4	**Change** Where change is to occur, the site will follow the Change Management Procedure MAN12 and complete form F12 to ensure the implications of the change are considered at the design stage with a view to the continual improvement of environmental, health & safety performance by taking the opportunity to adapt work, work organisation & work environments to eliminate hazards and reduce risks to health & safety.

9.2 Health and Safety Aspects

9.2.1	The Group EHS Manager is responsible for ensuring that any changes to safety legislation are communicated to the site EHS Manager. This may be directly through explanation of the legislation or through policy documents which outline the methods that need to be employed to comply with legislation.
9.2.2	The EHS Manager monitors sources (e.g. NRW/EA & IEMA web sites, professional memberships, Barbour updates, HSE website) to ensure maintenance of legislation compliance.
9.2.3	The General Manager is responsible for ensuring that changes to legislation are incorporated into site processes so that they are complied with.
9.2.4	Procedures for addressing complaints or queries have been documented and are contained within the Occupational Health and Safety Complaints, Queries and Communications MP27.
9.2.5	The General Manager will establish the site's health and safety objectives and will ensure they are monitored and reviewed as detailed in MP18.
9.2.6	Princes Cardiff maintains procedures for the continuous identification of hazards and risk assessments as well as the determination of the necessary control methods. (MP24 and CAR-HS-MP-07) Risk assessments are to be carried out by trained personnel. All incidents are to be recorded as per CAR-HS-FORM-04
9.2.7	The Departmental Manager will ensure that employees that perform tasks that can impact on health and safety are adequately trained as outlined in MP01.
9.2.8	The EHS Manager advises management on the first aid coverage required for all areas of the factory, shift cover and organises training for the individuals. It is the responsibility of management to ensure that changes to employees (e.g. shift patterns or individuals leaving the business) trigger a review of first aid coverage. MP23 is the Management Procedure for Management of First Aid

9.3 Health and Safety Planning

9.3.1	The organisation considers the organisation's context, interested parties and the QSHEM scope when planning the QSHEM system and determines the risks and opportunities that need to be addressed to: • increase the likelihood of achieving intended outcome(s) • preventing or reducing undesired effects • achieving continual improvement.
9.3.2	Risk and opportunities for the OH&S system are determined by taking into account: • hazards • risks • opportunities • legal & other requirements
9.3.3	Change control MAN12 includes the determination of risks and opportunities from permanent or temporary changes.

10. QSHE Programme Documentation

Documented policies, practices and procedures necessary to demonstrate compliance with legal and other requirements are maintained and revised as necessary

10.1 Site Policies

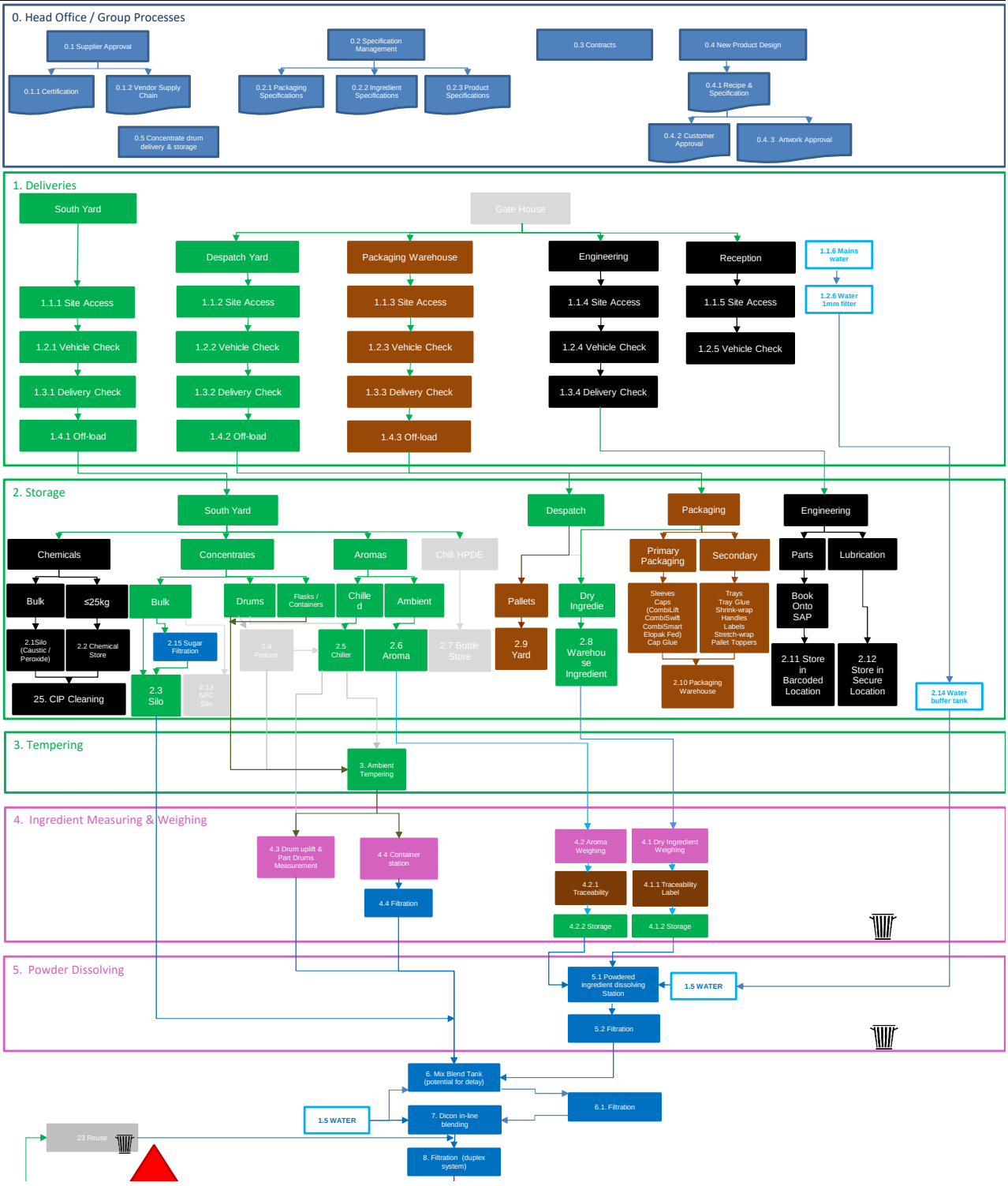
P	Title
0	QSHEM Policy
1	GMP Policy
2	Glass & Plastics That May Shatter Policy
3	Knife Policy
4	GM Policy
5	Allergen Policy
6	Wood Policy
7	Warehouse Storage Policy
8	Site Capability Policy
9	Halal Policy
10	Work Wear Policy
11	Despatch Policy
12	Security Policy
13	Isolation of Energised Equipment

10.2 Management Procedures

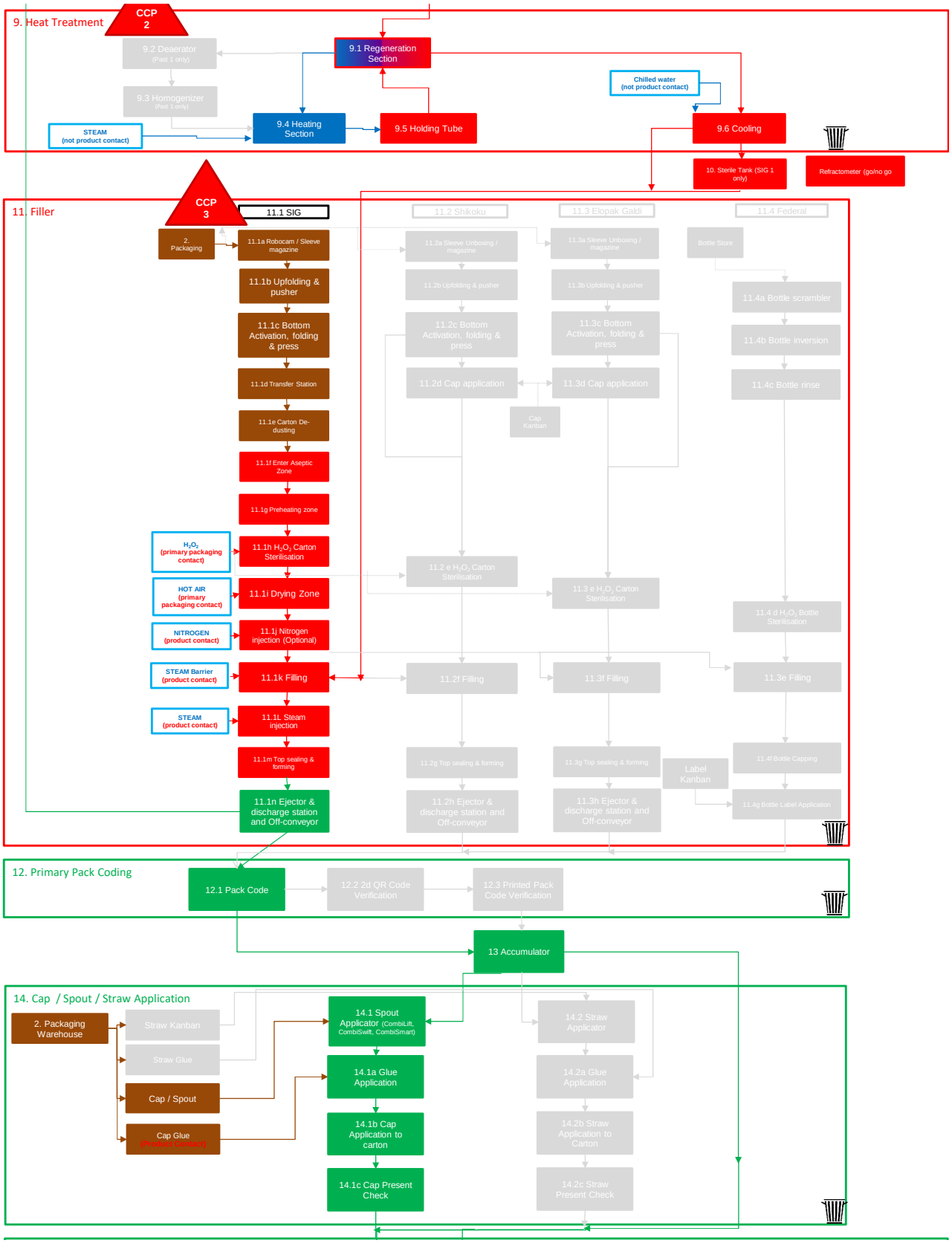
MP	Title
1	Training
2	Document Control
3	Contract Review
4	Purchasing
5	Calibration
6	Inspection & Testing
7	Inspection & Test Status
8	Product Identification & Traceability
9	Production & Packaging
10	Non-Conforming Goods
11	Warehouse
12	Consumer Complaints
13	Corrective Action
14	Internal Audit
15	Management Review
16	Preventative Action
17	Determination of Environmental Effects
18	Setting Site Objectives & Targets
19	Relevant Legal & Other Requirements
20	Environmental Complaints, Queries & Communications
21	Emergency Preparedness
22	Waste Management
23	Management of First Aid
24	Hazard Identification
25	Not Allocated
26	LOLER Compliance
27	OHS Complaints, Queries & Communications
28	Management of Contractors & Visitors
29	Isolation of Energised Equipment
30	Management of PPE
31	Not Allocated
32	Management of Chemicals
33	Not Allocated
34	Management of Asbestos
35	Infill control
36	MCERTS

APPENDIX III
PROCESS FLOW DIAGRAM

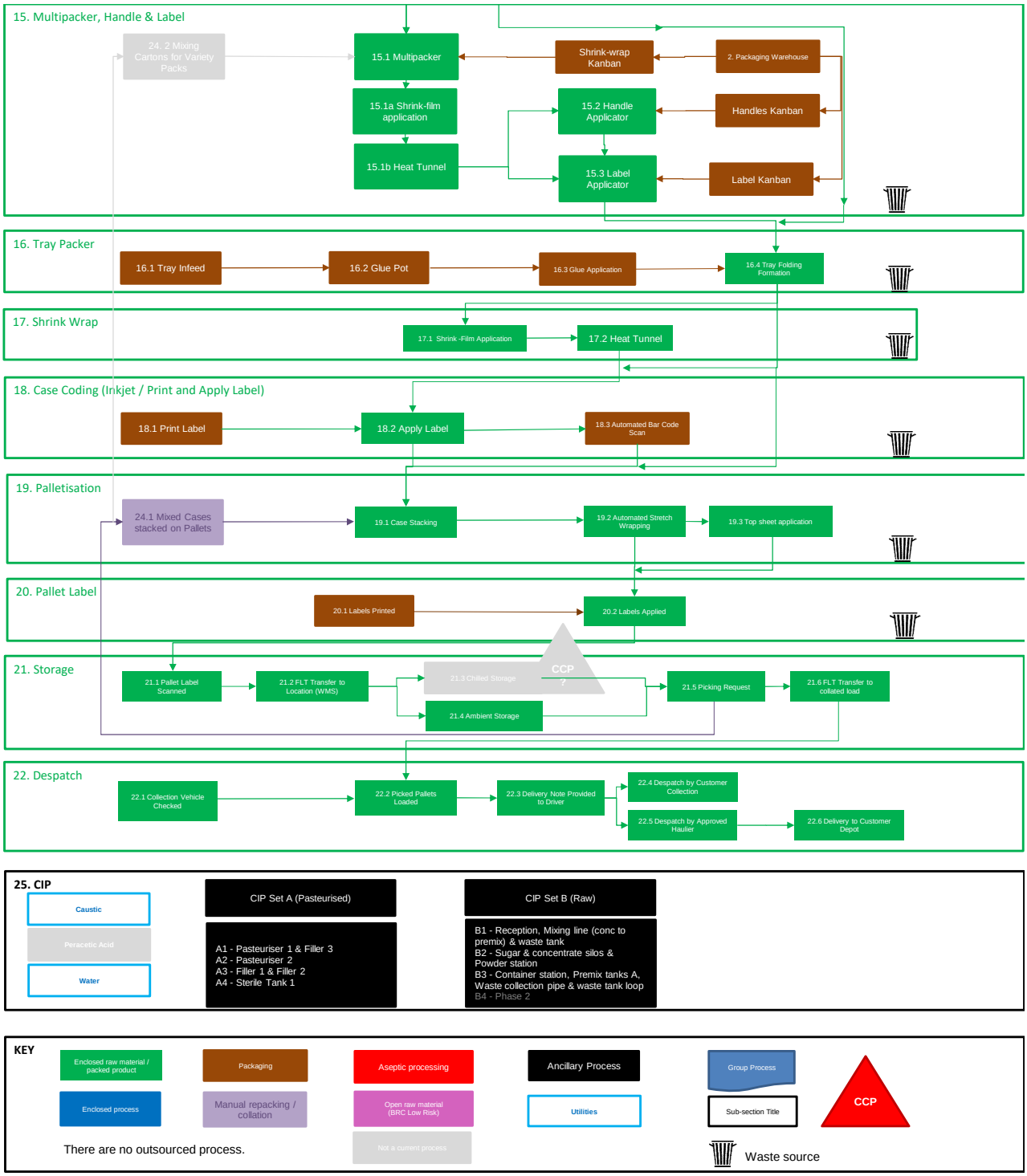
HACCP Process Flow Overview - Princes Cardiff Site		Issue Date:	Issue Number:
Compiler:	HACCP Team	April 2020	11
Approver:	Victoria Gilbert	Doc Ref:	HACCP-03b



Date Printed: 03/02/2021



Date Printed: 03/02/2021



25. CIP

Caustic

Peracetic Acid

Water

CIP Set A (Pasteurised)

A1 - Pasteuriser 1 & Filler 3
A2 - Pasteuriser 2
A3 - Filler 1 & Filler 2
A4 - Sterile Tank 1

CIP Set B (Raw)

B1 - Reception, Mixing line (conc to premix) & waste tank
B2 - Sugar & concentrate silos & Powder station
B3 - Container station, Premix tanks A, Waste collection pipe & waste tank loop
B4 - Phase 2

KEY

Enclosed raw material / packed product

Packaging

Aseptic processing

Ancillary Process

Group Process

CCP

Enclosed process

Manual repacking / collation

Open raw material (BRC Low Risk)

Utilities

Sub-section Title

There are no outsourced process.

Not a current process

Waste source

Date Printed: 03/02/2021

APPENDIX IV
TRADE EFFLUENT CONSENT

Direction No:
(3) of TE341

DŴR CYMRU CYFYNGEDIG
THE WATER INDUSTRY ACT 1991
NOTICE OF DIRECTION VARYING A CONSENT
TO DISCHARGE TRADE EFFLUENT INTO A PUBLIC SEWER

TO: Prince's Soft Drinks, Unit 68 Portmanmoor Road, East Moors, Cardiff CF24 5HB.

(1) A Consent ("the Consent") to discharge trade effluent into the public sewer subject to conditions was issued by **DŴR CYMRU CYFYNGEDIG** ("the Undertaker") (or its predecessors) on the 8th October 1985 from trade premises at Unit 68, Portmanmoor Road, Cardiff CF24 5HB.

(2) Notices of Direction ("the previous Directions") were given in respect of the said discharge on 9th September 1993 and 15th August 2001 by the Undertaker.

(3) Except in so far as they are varied by these Directions the conditions and provisions of the Consent and the previous Directions shall remain in force and shall apply to the discharge.

The Undertaker hereby gives Notice of its Direction that the conditions attached to the Consent [as varied by the previous Directions] shall be further varied with effect from the 1st February 2012 by:-

(i) the revocation of the conditions contained in the Consent and the previous Directions, and

(ii) the substitution for those conditions by the following conditions.

CONSENT No. TE341 of 2011

DWR CYMRU CYFYNGEDIG

WATER INDUSTRY ACT 1991

CONDITIONAL CONSENT TO THE DISCHARGE OF TRADE EFFLUENT TO THE PUBLIC SEWER

TO: Prince's Soft Drinks, the Owner and/or Occupier of the trade premises (herein called the "Occupiers") - whose registered office is situate at the Royal Liver Building, Pier Head, Liverpool L3 1NX.

RECITALS

1. The 17th day of September 1985 you applied for consent under Section 119 of the Water Industry Act 1991 for consent to discharge trade effluent from the following trade premises known as Prince's Soft Drinks and situated at Unit 68, Portmanmoor Road, East Moors, Cardiff CF24 5HB (hereinafter, the Application) and which trade premises are for the purpose of identification only shown on the location plan attached hereto and marked "A" (hereinafter, "the said trade premises").

2. Compliance with the conditions hereunder shall be ascertained by reference to the method of analysis as from time to time employed by the Undertaker, its servants, agents or contractors, save where the said condition(s) otherwise expressly provide(s).

DWR CYMRU CYFYNGEDIG ("the Undertaker") in the exercise of its powers under Section 121 of the Water Industry Act 1991, and thinking it fit to impose conditions as hereinafter appear, **GIVES ITS CONSENT** to the discharge of trade effluent from the said trade premises into the Undertaker's public sewers, **SUBJECT TO THE FOLLOWING CONDITIONS AND NOT OTHERWISE.**

(1) The public sewer into which the trade effluent may be discharged is the 3000mm more particularly identified by means of a line(s) coloured RED drawn on the plan attached hereto and marked "B".

(2) The discharge of trade effluent shall be made at the point marked "X" on the said plan and the said trade effluent shall enter into the public sewer shown on the said plan at the point marked "Y" thereon and not otherwise. Further, no connection, linkage, conduit, pipe, channel or other communication whatsoever shall be made to the said sewer between the said points "X" and "Y" [without the prior approval in writing of the Undertaker].

(3) The trade effluent to be discharged shall consist solely of that which was specified in the Trade Effluent Notice or application to discharge in respect of which the Consent [and/or previous Direction] was given as varied by any application made for the purpose of this Direction and derived [exclusively] from blending, pasteurisation and packing of fruit juices.

(4) Without prejudice to condition 3 above, the nature and/or composition of the trade effluent which may be discharged is as specified in the FIRST SCHEDULE hereto.

(5) The trade effluent shall not include any of the substances or properties listed in the SECOND SCHEDULE hereto in concentration greater than stated therein.

(6) The maximum quantity of trade effluent discharged on any day (being any continuous 24 hour period) shall not exceed 600 cubic metres.

(7) The highest rate at which trade effluent may be discharged shall not exceed 40 cubic metres per hour or 11 litres per second.

(8) The trade effluent shall only be discharged into the public sewer(s) at any time.

(9) No uncontaminated condensing water shall be discharged.

(10) There shall be eliminated from the trade effluent before it is discharged the matters listed below:

(a) Effluent with a temperature in excess of 43° Celsius (110° Fahrenheit);

(b) Calcium Carbide;

(c) Petroleum Spirit within the meaning of Section 111 of the Water Industry Act 1991 and/or the Petroleum Act 1928, save as otherwise permitted herein;

(d) Other material forming a constituent of the trade effluent, whether alone or in combination with other materials, specified hereby as that which is explosive;

(e) Any other substance forming a constituent of the trade effluent which is hereby specified as that which is likely to injure the sewers or to interfere with the free flow of their contents or to affect prejudicially the treatment and disposal of their contents;

(f) Any other substance forming a constituent of the trade effluent which is hereby specified as that which in its pure state or in combination with other materials in the contents of the sewer(s) ("the sewage") is capable of producing toxic or flammable vapours or causing a nuisance.

(11) No trade effluent shall be discharged the pH value of which is less than 6.0 or greater than 11.0.

(12) No trade effluent shall be discharged the nature or composition of which includes a matter, substance, property or matters, substances or properties which would constitute the trade effluent as Special Category Effluent within the meaning of Section 138 of the Water Industry Act 1991.

(13) The Occupier shall give to the Undertaker prior written notice of any change in the process of manufacture, materials, or other circumstances howsoever arising capable of altering the nature and/or composition of the trade effluent. No new substances or properties shall be discharged until the Undertaker has agreed thereto, either with or without imposing a limit and thereafter the said substance(s) and/or property(ies) shall be deemed incorporated into the SECOND SCHEDULE.

(14) An inspection chamber or manhole shall be provided and maintained by the Occupier in a suitable position and/or at the point(s) marked "X" on the plan annexed hereto in connection with each pipe through which the trade effluent is discharged and such inspection chamber or manhole shall be constructed and maintained in accordance with the Undertaker's reasonable requirements as from time to time notified in writing to the occupier so as to enable a person readily at any time to take samples of the trade effluent being discharged.

(15) A notch gauge, continuous recorder or some other apparatus suitable and adequate to the Undertaker for measuring and automatically recording the volume and rate of trade effluent so discharged shall be provided, such apparatus to be tested and maintained in accordance with the Undertaker's reasonable requirements as from time to time notified in writing to the Occupier.

(16) Apparatus capable of accurately determining, measuring and recording the nature and/or composition of the trade effluent discharged shall be provided, such apparatus to be tested and maintained in accordance with the Undertaker's reasonable requirements as from time to time notified in writing to the Occupier.

(17) The Occupier shall keep records of the volume, rate, nature and/or composition of the trade effluent discharged into the sewer(s) at all times available for inspection by any authorised officer of the Undertaker and copies of such records shall be sent to the Undertaker on demand.

(18) (a) The Occupier shall pay to the Undertaker charges for the reception, conveyance, treatment and disposal of the trade effluent and the costs of sampling, measuring and/or analysis of the same under the Undertaker's trade effluent's functions, which charges shall be determined as set out below, and all sums payable under this condition shall be payable upon demand;

(b) The charges under (a) above shall be calculated in accordance with Undertaker's Scheme of Charges as from time to time amended;

(c) For the avoidance of doubt, the charge shall be payable by any person who is or was the Occupier of the said trade premises during the period of discharge of the trade effluent or at the time payment is due.

(19) If the notch gauge, meter, recorder or other apparatus ceases to record or is suspected of not recording and/or measuring accurately, the quantity of trade

effluent discharged into the sewer(s) during the period from the date and/or time at which the records were last accepted by the Undertaker as being correct up to the date when the notch gauge, meter, recorder or other apparatus again registers accurately shall for the purpose of any payment to be made under these conditions be based on the average daily volume of trade effluent discharged during the preceding period over which the records were last accepted by the Undertaker as being accurate or during the month immediately after the notch, gauge, meter, recorder or other apparatus or means of measurement and recording has been accurate whichever is the higher.

YOUR RIGHT OF APPEAL

Section 126 of the Water Industry Act 1991 provides that:-

The owner or occupier of any trade premises may within 2 months of this Notice of Direction (or with the written permission of the Director General of Water Services at any later time) appeal to the Director against the Direction.

The Director has power to annul the Direction and to substitute for it any other Direction wherever more or less favourable to the appellant.

The address of the Director for the purposes of an appeal is (Centre City Tower, 7 Hill Street, Birmingham B5 4UA).

On an appeal in respect of a refusal to give consent, the Director may give the necessary consent either unconditionally or subject to such conditions as he thinks fit to impose.

On an appeal in respect of a condition the Director may take into review all the conditions whether appealed against or not and may substitute for them any other set of conditions (whether more or less favourable to the Appellant) or annul any of the conditions and may include provision as to the charges to be made in pursuance of any condition attached to a Consent for any period before the determination of the appeal.

On any appeal the Director may give direction that the trade effluent shall not be discharged until a specified date.

FAILURE TO COMPLY WITH CONDITIONS

If in the case of any trade premises a condition of the Consent or this Direction is contravened, the occupier of the premises will be guilty of an offence and liable on conviction by a Magistrates' Court to a fine not exceeding the statutory maximum or on conviction by the Crown Court to an unlimited fine.

DATED 19-12-11 Signed: **A. R. ANDREWS**

A R Andrews

Designation: **WASTEWATER REGULATION MANAGER**

Address: **DWR CYMRU-WELSH WATER**
NELSON OFFICES
PENTWYN ROAD
NELSON
TREHARRIS
CF46 6LY

First Schedule

The nature and composition of the trade effluent is:

Wastewater resulting from the blending, pasteurisation and packing of fruit juices and which may contain traces of the following:

Suspended Solids
Fruit Juices
Sugar
Caustic
Peracetic acid
Hydrogen Peroxide

Second Schedule

1. Total Suspended Solids of the trade effluent shall not exceed 600 milligrams per litre.

2. Total Chemical Oxygen Demand shall not exceed 1200 kilograms per day.

Third Schedule

Not applicable.

APPENDIX V
PROCESS EFFLUENT MASS BALANCE

Effluent Flow

Total Flow 438000

Litres Effluen 438000000 m3 Eff 438000

data required to be entered

calculating cells

F9 to update formulae

Caustic Usage for Year

MIP C	0
MIP CIP	0
Caustak30	748800

Caustic 0.035 ppm Mercury
0.01 ppm Cadmium

MIP C 0.002 ppm Mercury
0.001 ppm Cadmium

Caustak 30 30% Caustic

0.0105 ppm Mercury
0.003 ppm Cadmium

7862.4 mg Mercury
2246.4 mg Cadmium

MIP C 64%

0.002 ppm Mercury
0.001 ppm Cadmium

0 mg Mercury
0 mg Cadmium

MIP CIP 70% caustic

0 ppm Mercury
0 ppmCadmium

0 mg Mercury
0 mg Cadmium

Total

7862.4 mg Mercury — 7.8624 g Mercury
2246.4 mg Cadmium — 2.2464 g Cadmium

Effluent

1.80E-05 mg/l mercury — 0.017950685 ug/l Mercury
5.13E-06 mg/l cadmium — 0.005128767 ug/l Cadmium

APPENDIX VI
CLIMATE CHANGE AGREEMENT

ECL Ref: ECL.046.01.01/EPTR
February 2021
Version: Issue 1

10 May 2018
CCA Register Ref: FDF1/T00556-GEN-6

Princes Ltd
TU Identifier: FDF1/T00556

Royal Liver Building
Pier Head
Liverpool
Merseyside
L3 1NX
England
nick.spruyt@princes.co.uk

CLIMATE CHANGE AGREEMENTS SCHEME
UNDERLYING AGREEMENT ACTIVATED

Dear Nick Spruyt

We are writing to inform Princes Ltd ("you") that your underlying agreement ("the agreement") for the Climate Change Agreement scheme ("the scheme") has been activated. This will now allow your target unit and the facilities listed within your agreement to qualify for the Climate Change Levy discount under Part IV of Schedule 6 to the Finance Act 2000 (as amended). The details below confirm the target unit and agreement to which this letter relates.

Target Unit:	FDF1/T00556 – Princes Ltd Royal Liver Building Pier Head Liverpool Merseyside L3 1NX England
Agreement Identifier:	FDF1/T00556 v6

We will notify HMRC that this agreement has been activated for your target unit and the facilities named within it. You will be required to contact your energy supplier and notify them of this agreement to obtain your discount from the Climate Change Levy.

If you require any clarification of the above, please contact your sector association.

Yours faithfully

Environment Agency, Richard Fairclough House, Knutsford Road, Latchford, Warrington, Cheshire, WA4 1HT
Tel: 03708 506 506

CCA Team

c.c. Recipients:
Stephen Reeson - stephen.reeson@fdf.org.uk
David McDiarmid - David.McDiarmid@princes.co.uk
Nick Spruyt - nick.spruyt@princes.co.uk
Julie Gartside - cca@slrconsulting.com

Environment Agency, Richard Fairclough House, Knutsford Road, Latchford, Warrington, Cheshire, WA4 1HT
Tel: 03708 506 506

UNDERLYING CLIMATE CHANGE AGREEMENT FOR THE FOOD AND DRINK SECTOR
Agreement Dated: 10th day of May 2018
Agreement Identifier: FDF1/T00556 v6
TU Identifier: FDF1/T00556

THIS AGREEMENT is made on the 10th day of May 2018

BETWEEN:

(1) the Environment Agency ("the Administrator"); and

(2) the operator set out in Schedule 2 ("the Operator")

RECITALS

(A) Section 30 of and Schedule 6 to the Finance Act 2000 ("the Act") make provision for a tax known as the climate change levy ("the Levy"). The Levy is charged on the supply of taxable commodities as defined in paragraph 3 of Schedule 6 to the Finance Act 2000.

(B) Paragraphs 42(1)(ba) and 42(1)(c) of Schedule 6 to the Act provide that the amount payable by way of the Levy shall be discounted from the full rate where the supply is a reduced-rate supply. A reduced-rate supply is a taxable supply supplied to a facility specified in a certificate given by the Administrator to the Commissioners for Her Majesty's Revenue and Customs as a facility which is covered by a climate change agreement for a period specified in the certificate in accordance with paragraphs 42 to 52F of Schedule 6 to the Act.

(C) A climate change agreement is defined in paragraph 46 of Schedule 6 to the Act. It may consist of a combination of agreements that falls within paragraph 48. A combination of agreements falls within paragraph 48 if a number of conditions are satisfied. The first condition is that the combination of agreements is a combination of an umbrella agreement and an agreement that, in relation to the umbrella agreement, is an underlying agreement.

(D) This agreement is an underlying agreement in relation to an umbrella agreement, entered into for the purposes of the reduced rate of Levy. It is not intended to give rise to contractual obligations between the parties.

(E) The facility or facilities set out in Schedule 4 to this agreement are a facility or facilities to which an agreement applies.

(F) The Operator is a representative of each facility to which this agreement applies, as defined in paragraph 47(2) of Schedule 6.

AGREED TERMS

IT IS AGREED as follows:

1. INTERPRETATION

1.1 In this Agreement, unless the context otherwise requires:

"account" means the account in the Register of a sector association or an operator;

"agreement" means an umbrella agreement or an underlying agreement;

"base year" in respect of a target unit which does not include a greenfield facility means a 12 month period agreed between an operator and the administrator, ending prior to the date of an underlying agreement, for which data is supplied by an operator to the administrator prior to the operator entering into the underlying agreement;

"base year" in respect of a target unit which does include a greenfield facility means the 12 month period starting on the date of an underlying agreement";

"buy-out fee" means the fee calculated in accordance with Rule 7;

"certification period" means, any of the following periods:

(a) 1st April 2013 to 30th June 2015;

(b) 1st July 2015 to 30th June 2017;

(c) 1st July 2017 to 30th June 2019;

(d) 1st July 2019 to 30th June 2021; or

(e) 1st July 2021 to 31st March 2023;

"charges" means charges due to the Administrator under the charging scheme;

"charging scheme" means the Climate Change Agreements Charges Scheme 2012 made by the Administrator or any replacement or revision of that charging scheme;

"emissions" means the total emissions in tCO_2 equivalent for a target period;

"EU ETS Directive" means Directive 2003/87/EC of the European Parliament and of the Council establishing a scheme for greenhouse gas emissions allowance trading within the Community and amending Council Directive 96/61/EC, as amended from time to time;[1]

"facility" means a facility within the meaning of paragraph 50(2) to (6) of Schedule 6 to the Act;

"facility number" means the unique identification number of a facility set out in schedule 6 of this Agreement;

"greenfield facility" means a facility which started to carry out the process by virtue of which it is a facility within the meaning of paragraph 50 of Schedule 6 during the 12 month period ending on the date the operator applies for the facility to be covered by an agreement"

"Novem ratio target" has the meaning set out in the technical annex;

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[1] *OJ No L 275, 25.10.03, p 32. The Directive was amended by European Parliament and Council Directives 2004/101/EC (OJ No. L 338, 13.11.2004, p 18), 2008/101/EC (OJ No L 8, 13.1.2009, p 3) and 2009/29/EC (OJ No L 140, 5.6.2009, p 63), and by Regulation (EC) No 219/2009 of the European Parliament and of the Council (OJ No L 87, 31.3.2009, p 109).

"operator" means, as the context requires, either:

a) the party to this Agreement other than the Administrator; or

b) a party to an underlying agreement other than the Administrator;

"personal information" means:

a) the address of the registered office of the sector association or operator;

b) the name, address and email address of:

i) in the case of a sector association, a person who can be contacted in respect of the sector association;

ii) in the case of an Operator, the responsible person; and

c) the name, address and email address of a person who can be contacted in respect of the facility or each facility covered by an agreement;

"the Register" means the electronic system established and operated by the Administrator for the administration of agreements;

"the Regulations" means the Climate Change Agreements (Administration) Regulations 2012 S.I. 2012/1976;

"responsible person" means an individual who is legally authorised by the Operator to enter as the Operator's agent into an underlying agreement, to agree any amendments to an underlying agreement, and to accept service of notices on behalf of the Operator;

"Rule or Rules" means the Rules for the Operation of Climate Change Agreements or any of them set out in Schedule 1 to this Agreement as varied from time to time;

"Schedule 6" means Schedule 6 to the Finance Act 2000;

"sector" means the sector consisting of facilities which are covered by the same umbrella agreement;

"sector association" means the sector association set out in Schedule 3;

"sector commitment" means the commitment set out in Schedule 5 of the umbrella agreement, as varied from time to time;

"surplus" means the amount by which the emissions have fallen below the target for any target period;

"target" means the percentage improvement in energy efficiency or carbon efficiency from the base year applicable to the target unit, set out in Schedule 6 to this Agreement, as varied from time to time;

"target period 1" means the target period from 1st January 2013 to 31st December 2014;

"target period 2" means the target period from 1st January 2015 to 31st December 2016;

"target period 3" means the target period from 1st January 2017 to 31st December 2018;

"target period 4" means the target period from 1st January 2019 to 31st December 2020.

"target unit" means the facility or group of facilities to which this Agreement applies;

"tCO_2 equivalent" means tonnes of carbon dioxide equivalent;

"technical annex" means the technical annex dated 6 March 2013 and published by the Administrator or the Secretary of State, available via the Administrator's website;

"throughput" means the measure of production, or factor related to production, used to determine the relationship between the amount of energy used by the target unit and the levels of activity of the target unit, as set out in Schedule 6 of this agreement;

"the Tribunal" means the First-tier Tribunal established under the Tribunal Courts and Enforcement Act 2007[2];

"umbrella agreement" means an agreement that is an umbrella agreement for the purposes of paragraph 48 of Schedule 6 to the Act;

"underlying agreement" means, as the context requires, either:

a) this Agreement; or

b) an agreement that is an underlying agreement for the purposes of paragraph 48 of Schedule 6 to the Act.

1.2 Other words and expressions used in this Agreement have the same meaning as they bear in Schedule 6 to the Finance Act 2000 or the Regulations.

[2] Appeals are assigned to the General Regulatory Chamber of the First-tier Tribunal by virtue of article 3(a) of the First-tier Tribunal and Upper Tribunal (Chambers) Order 2010 (S.I. 2010/2655). The Tribunal Procedure (First-tier Tribunal) (General Regulatory Chamber) Rules 2009 (S.I. 2009/1976) sets out procedural rules relating to such appeals.

2. FACILITIES TO WHICH THIS AGREEMENT APPLIES

2.1 This Agreement applies to the facility or facilities set out in Schedule 5 to this Agreement which carry out some or all of the activities set out in Schedule 4 to this Agreement.

3. TARGET

3.1 The target is set out in Schedule 6 to this Agreement, as varied from time to time.

3.2 Whether the target has been met must be determined in accordance with Rule 6.

3.3 The Secretary of State may carry out a review of the sector commitment during 2016 for the target periods 1st January 2017 to 31st December 2018 and 1st January 2019 to 31st December 2020. The target may be varied to take account of the review in accordance with the procedure set out in Rule 12.

3.4 The target may also be varied in accordance with Rules 6, 9, 10 and 11.

4. THE RULES

4.1 Schedule 1 to this Agreement which sets out the Rules for the operation of Climate Change Agreements has effect.

4.2 The Operator agrees to comply with the Rules.

5. DURATION AND TERMINATION OF THIS AGREEMENT

5.1 Subject to clause 5.2 below, this Agreement comes into force on 1 April 2013 or the date on which it is made, if later, and ends on 31 March 2023.

5.2 This Agreement may be terminated before 31 March 2023:

5.2.1 at any time by a notice served by the Operator giving at least 20 working days notice served on the Administrator; or

5.2.2 in accordance with the Regulations.

6. VARIATION OF AGREEMENT

6.1 Subject to clauses, 6.2 and 6.3 below, this Agreement may be varied at any time if agreed between the Administrator and the Operator.

6.2 The facilities to which this Agreement applies may be varied in accordance with Rules 9 and 10.

6.3 This Agreement may be varied by the Administrator at any time to take account of changes to the terms specified in the Regulations.

7. AUTHORITY

7.1 The Operator warrants that it has the power to enter into this Agreement and is authorised and has obtained all necessary approvals to enter into this Agreement on behalf of the included facilities and the responsible person warrants that he or she is authorised to sign this Agreement on behalf of the operator.

Signed on behalf of
the Environment Agency

Karl Sydney
Operations Manager (Energy Efficiency)

Signed by the responsible person on behalf of the Operator

……

Nick Spruyt
Chief Executive Operations
nick.spruyt@princes.co.uk

SCHEDULE 1

RULES FOR THE OPERATION OF CLIMATE CHANGE AGREEMENTS

1. OBLIGATIONS OF A SECTOR ASSOCIATION AND OF AN OPERATOR

1.1 An Operator and a Sector Association must:

1.1.1 supply such information to the Administrator as the Administrator may request in connection with an agreement, by the date specified in the request;

1.1.2 notify the Administrator of any changes to its personal information within 20 working days of the change;

1.1.3 co-operate with any person appointed by the Administrator to undertake an independent audit of information provided to the Administrator; and

1.1.4 comply with the provisions of the charging scheme. If a charge remains unpaid after the date on which it is due, it may be recovered by the Administrator as a civil debt.

2. OBLIGATIONS OF A SECTOR ASSOCIATION

2.1 Following the setting of the sector commitment by the Secretary of State, or following a variation of the sector commitment under Rule 12.1, a Sector Association must distribute the sector commitment between each target unit under the umbrella agreement.

3. OBLIGATIONS OF AN OPERATOR

3.1 An Operator must:

3.1.1 notify the Administrator and the Sector Association within 20 working days of the date when the Operator has reason to believe that a facility covered by an underlying agreement may not be eligible for inclusion in the underlying agreement;

3.1.2 notify the Administrator within 20 working days of becoming aware of any structural change or other change set out in the technical annex which may give rise to a variation to the target in accordance with Rule 11;

3.1.3 notify the Administrator within 20 working days of discovering any error in the data provided to the Administrator for the base year;

3.1.4 provide to the Administrator on or before 1st May following the end of a target period such information as has been requested by the

Administrator in order to determine whether progress towards meeting the target is, or is likely to be, taken to be satisfactory;

3.1.5 provide any other information requested at any time by the Administrator by the date specified in the request to enable the Administrator to determine that:

(a) the target has been met; or

(b) the Operator is complying with the terms of the underlying agreement;

3.1.6 notify the Administrator within 5 working days of the Operator or a facility in a target unit becoming a firm in difficulty, within the meaning of the European Commission Guidelines on State Aid for Rescuing and Restructuring Firms in Difficulty (2004/C 244/02);

3.1.7 provide the responsible person with full authority to carry out his or her functions, including authorisation to accept on behalf of the Operator the service of any notice; and

3.1.8 provide a current UK postal address and an operational email address of the responsible person for service of any notice.

3.2 If the Administrator enters into an underlying agreement before a target has been agreed, conditional upon the Operator providing sufficient information within a specified period in order to set the target for the target unit, the Operator must supply any data requested by the Administrator within the period specified by the Administrator on energy use and throughput of the target unit.

4. OPERATION OF THE REGISTER

4.1 Subject to Rules 4.2 and 4.3, to the extent possible, a Sector Association and an Operator must communicate with the Administrator using the Register.

4.2 Until a Sector Association and an Operator have been notified by the Administrator that the Operator is able to operate an account on its own behalf, an Operator must provide all information to the Sector Association to comply with the obligations of an Operator under an underlying agreement. The Sector Association must then operate the register on behalf of the Operator to provide the information to the Administrator.

4.3 After receiving notification from the Administrator that an Operator is able to operate an account on its own behalf, an Operator must notify the Administrator if it wishes to access its account directly to comply with its obligations under an underlying agreement. If an Operator makes such notification, the Operator must then operate the Register on its own behalf in order to comply with its obligations under an underlying agreement. If an Operator does not make such notification, the Operator must continue to provide all information to the Sector Association to comply with the obligations of an Operator under an underlying agreement and

the Sector Association must continue to operate the register on behalf of the Operator to provide information to the Administrator.

5. CERTIFICATION OF A FACILITY

5.1 The Administrator must certify that a facility is covered by an agreement from the signing of an underlying agreement to the end of the certification period in which the underlying agreement is signed.

5.2 The Administrator must certify that a facility is covered by an agreement for any certification period other than the certification period in which the underlying agreement is signed, where it appears to the Administrator that progress made in the immediately preceding certification period, whether under the underlying agreement or under any previous underlying agreement, towards meeting targets set for the target unit is, or is likely to be, satisfactory.

5.3 For the purposes of this Rule, progress made in the immediately preceding certification period towards meeting targets set for the target unit is, or is likely to be satisfactory only where condition 1 and condition 2 are satisfied.

5.4 Condition 1 is that:

5.4.1 the target set for the target unit for the relevant target period is met, in accordance with Rule 6; or

5.4.2 if the target set for the target unit has not been met, the target unit has paid the buy-out fee in accordance with Rule 7.

5.5 Condition 2 is that obligations imposed under or by virtue of regulations made for the purpose of implementing the EU ETS Directive have been complied with in respect of each facility comprising the target unit.

5.6 If:

5.6.1 a target unit has failed to meet its target in accordance with Rule 6 and the Operator has failed to pay the buy-out fee in accordance with Rule 7;

5.6.2 obligations imposed under or by virtue of regulations made for the purpose of implementing the EU ETS Directive have not been complied with in respect of any facility in a target unit; or

5.6.3 the underlying agreement or umbrella agreement is terminated in accordance with Regulation 17(1)(2), or (3) or Regulation 18,

the Administrator must not certify that the facility or facilities comprising the target unit are covered by an agreement or, where a certificate has been issued, the Administrator must vary the certificate in accordance with paragraph 45 of Schedule 6.

5.7 If:

5.7.1 a facility is not or ceases to be eligible for inclusion in an agreement; or

5.7.2 a facility is excluded from an underlying agreement under Rule 10;

the Administrator must not certify that the facility is covered by an agreement or, where a certificate has been issued, the Administrator must vary the certificate in accordance with paragraph 45 of Schedule 6.

5.8 If the information supplied to the Administrator is insufficient to determine whether:

5.8.1 the target for the target period has been met; or

5.8.2 obligations imposed under or by virtue of regulations made for the purpose of implementing the EU ETS Directive have been complied with in respect of each facility comprising the target unit;

the Administrator may refuse to certify that the facility or facilities are covered by an agreement or, where a certificate has been issued, the Administrator may vary that certificate in accordance with paragraph 45 of Schedule 6.

5.9 Subject to Rule 5.10, if the Administrator does not certify a facility or varies a certificate that has been issued, the Administrator must serve a decision notice on the Sector Association and the Operator of the facility setting out the reasons for the decision, unless a notice of termination has already been served.

5.10 The Administrator is not required to serve a decision notice where a facility has been certified under this Rule and it is subsequently discovered that the target unit for the relevant target period had not been met because of an error in the information originally supplied to the Administrator provided that:

5.10.1 the Sector Association and the Operator have satisfied the Administrator that the error was unintentional; and

5.10.2 the Operator has paid any buy-out fee in accordance with Rule 7.

6. MEETING THE TARGET

6.1 A target unit meets its target for the purpose of Rule 5 if it meets or exceeds the percentage improvement in energy efficiency or carbon efficiency from the base year set out in Schedule 6 to the underlying agreement.

6.2 The Administrator must determine whether the target has been met in accordance with the principles, methodologies and procedures set out in the technical annex.

6.3 An Operator must notify the Administrator on or before 31st January in the year following the end of a target period of any circumstances which may give rise to an adjustment to the target for the previous target period, as set out in the technical annex.

6.4 If an Operator makes a notification under Rule 6.3, the Administrator may adjust the previous target in accordance with the principles, methodologies and calculations set out in the technical annex and must serve a notice on the Operator, setting out:

6.4.1 whether or not it had decided to vary the target; and

6.4.2 any revised target (as varied) for the target unit.

7. BUY-OUT MECHANISM

7.1 If the administrator finds that the target unit has failed to meet its targets:

7.1.1 at any time in the period beginning with 1st May in the year following the end of a target period and ending immediately before the first day of the next certification period; or

7.1.2 at any other time,

the obligation to make progress towards meeting targets may instead be satisfied by the payment to the administrator of a fee in accordance with Rule 7.2.

7.2 If Rule 7.1 applies, the administrator must serve a notice on the Operator containing the following information:

7.2.1 that the target unit has failed to meet its target;

7.2.2 the fee to be paid, calculated in accordance with Rule 7.3 or Rule 7.4;

7.2.3 the date by which the fee must be paid, determined in accordance with Rule 7.5 or Rule 7.6;

7.2.4 to whom the fee must be paid;

7.2.5 how the fee is to be paid; and

7.2.6 that failure to pay the fee in accordance with the notice will result in the issue of a variation certificate in accordance with paragraph 45 of Schedule 6.

7.3 If Rule 7.1.1 applies, the amount of the fee is:

$$A \times (W - S)$$

Where:

(a) A is £12 where the finding is of a failure to meet a target for target period 1 (1st January 2013 – 31st December 2014) or target period 2 (1st January 2015 – 31st December 2016), or £14 where the finding is of a failure to meet a target for

target period 3 (1st January 2017 – 31st December 2018) or target period 4 (1st January 2019 – 31st December 2020);

(b) W in units of tCO_2 equivalent represents the amount by which the emissions for the target period exceed the target and

(c) S in units of tCO_2 equivalent represents any surplus.

7.4 If Rule 7.1.2 applies, the amount of the fee is:

$$A \times W$$

Where:

(a) A is £12 where the finding is of a failure to meet a target for target period 1 (1st January 2013 – 31st December 2014) or target period 2 (1st January 2015 – 31st December 2016), or £14 where the finding is of a failure to meet a target for target period 3 (1st January 2017 – 31st December 2018) or target period 4 (1st January 2019 – 31st December 2020);

(b) W in units of tCO_2 equivalent represents the amount by which the emissions for the target period exceed the target.

7.5 If Rule 7.1.1 applies, the fee must be paid on or before 1st July in the year in which the target unit is found to have failed to meet its targets.

7.6 If Rule 7.1.2 applies, the fee must be paid within 30 working days beginning with the date of the notice.

7.7 Payment of the fee is deemed to have been made when the person to whom the fee must be paid as specified in the notice receives full cleared funds.

7.8 For the purposes of calculating the buy-out fee under this Rule and for calculating the amount of any surplus, the Administrator must calculate the difference between the target for the target period and the actual performance achieved during the target period, where the target and the actual performance achieved are expressed in the same units, and convert any difference between the two into a quantity of carbon dioxide equivalent, expressed in units of tCO_2 equivalent, using the principles, methodologies and calculations set out in the technical annex.

8. SURPLUS

8.1 If a facility is excluded from a target unit, the Operator must determine how any surplus should be distributed between the facilities that have been excluded from the target unit and the facilities remaining in the target unit and must notify the Administrator of the redistribution within 20 working days of the facility being excluded from the target unit.

8.2 If an Operator fails to notify the Administrator of the redistribution in accordance with Rule 8.1 any surplus remains with the facilities remaining in the target unit.

8.3 If facilities join a target unit, any surplus attributable to those joining facilities may be used by the target unit as a whole.

9. VARIATION BY INCLUSION OF ADDITIONAL FACILITIES

9.1 A facility which is not already included in another umbrella agreement is eligible at any time to be considered for inclusion in an umbrella agreement where:

9.1.1 it is a facility within the meaning of paragraph 50 of Schedule 6; and

9.1.2 it is a facility undertaking the activities set out in Schedule 3 to an umbrella agreement.

9.2 A facility which is not already included in another underlying agreement is eligible at any time to be considered for inclusion in an underlying agreement where:

9.2.1 it is a facility within the meaning of paragraph 50 of Schedule 6;

9.2.2 it is a facility undertaking the activities set out in Schedule 3 to an umbrella agreement; and

9.2.3 it has the same operator as the operator of the underlying agreement under which it will be included, as set out in the technical annex.

9.3 A facility which is already included in another underlying agreement is eligible to be considered for inclusion in a different underlying agreement on or before 30 September 2013 where:

9.3.1 it is a facility within the meaning of paragraph 50 of Schedule 6;

9.3.2 it is a facility undertaking the activities set out in Schedule 3 to an umbrella agreement; and

9.3.3 it has the same operator as the operator of the underlying agreement under which it will be included, as set out in the technical annex.

9.4 A facility which is already included in another underlying agreement is eligible to be considered for inclusion in a different underlying agreement on or after 1 October 2013 where:

9.4.1 it is a facility within the meaning of paragraph 50 of Schedule 6;

9.4.2 it is a facility undertaking the activities set out in Schedule 3 to an umbrella agreement;

9.4.3 it has the same operator as the operator of the underlying agreement under which it will be included, as set out in the technical annex; and

9.4.4 there has been a change of operator of the facility.

9.5 An additional facility cannot be added to an umbrella agreement or an underlying agreement:

9.5.1 during the final target period under the umbrella agreement or the underlying agreement; or

9.5.2 during the last two months of a target period.

9.6 The administrator may vary the target of a target unit to take account of the inclusion of additional facilities following the principles, methodologies and calculations set out in the technical annex.

9.7 If a Sector Association wishes to add an additional facility to an umbrella agreement or an Operator wishes to add an additional facility to an underlying agreement the Sector Association or the Operator must notify the Administrator not less than two months before the commencement of the next target period setting out:

9.7.1 the name of the Operator of the facility;

9.7.2 the address of the facility;

9.7.3 a description of the facility;

9.7.4 such information as will enable the Administrator to reach a decision on establishing eligibility of the facility, as requested by the Administrator; and

9.7.5 such information as will enable the Administrator to determine the revised target for the target unit, as requested by the Administrator.

9.8 If the Administrator receives a notification under Rule 9.4, the Administrator must serve a notice on the Operator, copied to the Sector Association:

9.8.1 consenting to include the additional facility in an umbrella agreement or an underlying agreement and setting out whether or not it has decided to vary the target, and if so, the revised target (as varied) for the target unit;

9.8.2 refusing consent to include the facility in an umbrella agreement or an underlying agreement, giving reasons for the decision; or

9.8.3 requesting such further information as is required in order to establish eligibility of the facility or reach a decision on the target for the facility.

10. VARIATION BY EXCLUSION OF FACILITIES

10.1 If a Sector Association or an Operator wishes to exclude a facility, or part of it, from an umbrella agreement or an underlying agreement, it must notify the Administrator of the proposed exclusion, setting out:

10.1.1 the name of the Operator of the facility;

10.1.2 the facility number, or a description of the part that is to be excluded; and

10.1.3 the reason for the exclusion.

10.2 If:

10.2.1 a Sector Association or an Operator has notified the Administrator that it wishes to exclude a facility under Rule 10.1; or

10.2.2 the Administrator has terminated an agreement so far as it relates to an individual facility under Regulation 17(4),

the Administrator may vary the target to take account of the exclusion or termination following the principles, methodologies and calculations set out in the technical annex, and may request such information from the Sector Association or the Operator as it requires in order to determine the revised target.

10.3 If the Administrator decides to vary or not to vary the target under Rule 10.2, it must serve a notice on the Operator, copied to the Sector Association, setting out whether or not it has decided to vary the target, and if so the revised target (as varied) for the target unit.

11. VARIATION OF TARGETS IN OTHER CIRCUMSTANCES

11.1 The Administrator may vary the target to take account of:

11.1.1 any structural changes or other changes to the target unit which the Operator must notify to the Administrator under Rule 3.1.2;

11.1.2 any errors in the data provided to the Administrator for the base year; or

11.1.3 in respect of a target unit which has a Novem ratio target, the removal of a product produced in the target period which was produced in the base year.

following the principles, methodologies and calculations set out in the technical annex.

11.2 The Administrator may request any information of a Sector Association or an Operator as it requires in order to determine the revised target under Rule 11.1.

11.3 If the Administrator decides to vary or not to vary a target under Rule 11.1, it must serve a notice on the Operator, copied to the Sector Association, setting out:

11.3.1 whether or not it has decided to vary the target; and

11.3.2 any revised target (as varied) for the target unit.

12. VARIATION OF SECTOR COMMITMENT FOLLOWING A REVIEW

12.1 The sector commitment may be reviewed by the Secretary of State during 2016 for the target periods from 1 January 2017 to 31 December 2018 and from 1 January 2019 to 31 December 2020.

12.2 If the Sector Association and the Secretary of State agree on a variation to the sector commitment following a review, the Secretary of State may issue a direction to the Administrator that the sector commitment must be varied and then the Administrator must serve a variation notice on the Sector Association.

12.3 The variation notice must state:

12.3.1 the agreed variation; and

12.3.2 the date from which the agreed variation will take effect.

12.4 The Sector Association must, within 20 working days of receipt of a variation notice, serve notice on the Administrator setting out the proposed distribution of the revised sector commitment between each target unit under the umbrella agreement.

12.5 The Administrator must:

12.5.1 agree to the proposed distribution and vary the targets of each target unit accordingly;

12.5.2 request further information in relation to the proposed distribution; or

12.5.3 refuse the proposed distribution and propose an alternative distribution, giving reasons for the decision.

12.6 If the Sector Association and the Secretary of State fail to agree on a variation of the sector commitment, either party may refer any dispute as to matters of fact to an adjudicator for adjudication, in accordance with the procedure set out in guidance published by the Secretary of State.

12.7 The adjudicator must, on the basis of representations provided to the adjudicator and any additional information considered necessary by the adjudicator, make a finding on the disputed questions of fact and notify the parties of that finding.

12.8 The adjudicator's finding on a disputed question of fact shall be binding on the parties but it shall be for the Secretary of State and the Sector Association to agree, in the light of that finding, what variations to the sector commitment are required.

12.9 If the Secretary of State and the Sector Association fail to agree on the variation to the sector commitment, the Administrator may terminate the agreement in accordance with Regulation 18.

13. RIGHT OF APPEAL

13.1 If the Administrator:

13.1.1 decides not to certify a facility or to vary a certificate which has been issued;

13.1.2 serves a notice imposing a buy-out fee under Rule 7 upon determining that a target unit has failed to meet its target; or

13.1.3 decides to vary or not to vary the target for a target unit,

the Operator may appeal to the Tribunal against the decision.

13.2 In respect of an Operator which enters into an agreement after 1 April 2013, the Operator may appeal to the Tribunal against the target that has been set for the target unit by the Administrator.

13.3 For the purposes of Rule 13.2, the date on which notice of the decision is deemed to have been sent to the Operator is the later of the date the agreement is entered into or the date the Administrator sends notice to the Operator of the target for the target unit.

13.4 The grounds on which an Operator may appeal under Rule 13.1 and 13.2 are:

13.4.1 that the decision was based on an error of fact;

13.4.2 that the decision was wrong in law;

13.4.3 that the decision was unreasonable;

13.4.4 any other reason.

13.5 The bringing of an appeal suspends the effect of the decision pending final determination by the Tribunal of the appeal or its withdrawal.

13.6 On determining an appeal under these Rules the Tribunal must either:

13.6.1 affirm the decision;

13.6.2 quash the decision; or

13.6.3 vary the decision.

14. RECORDS AND INFORMATION

14.1 A Sector Association and an Operator must retain records of all information required to be supplied to the Administrator under these Rules.

14.2 In particular, an Operator must retain:

14.2.1 sufficient records to allow the Administrator to verify whether a target unit has met its target, including sufficient records to allow the accurate verification of throughput and annual consumption of energy of a target unit; and

14.2.2 records of energy saving actions and measures implemented during each target period.

14.3 A Sector Association and an Operator must make all records which it is required to retain under these Rules available for inspection by the Administrator or a person appointed by the Administrator and must provide copies of such records in response to a request by the date specified in the request.

14.4 All records required to be retained under these Rules must be retained throughout the duration of an agreement and for a period of four years following the termination of an agreement.

15. PUBLICATION AND DISCLOSURE OF INFORMATION

15.1 The Administrator must publish such information as required under the Regulations.

15.2 In respect of the disclosure of information other than disclosure of information required to be published under the Regulations, information supplied by a Sector Association or an Operator to the Administrator or the Secretary of State, to any agent of the Administrator or the Secretary of State, or to any person appointed by the Administrator or Secretary of State to carry out an independent audit, may be disclosed without the consent of the Sector Association or Operator, where such disclosure is:

15.2.1 by the Administrator to the Secretary of State, for any purpose connected with the functions of the Secretary of State;

15.2.2 by the Secretary of State to the Administrator, for any purpose connected with the functions of the Administrator;

15.2.3 to a relevant authority, for any purpose connected with the functions of the relevant authority;

15.2.4 to any person appointed by the Administrator or the Secretary of State to carry out an independent audit;

15.2.5 to an adjudicator appointed under these Rules;

15.2.6 to any person appointed by the Administrator or the Secretary of State to act as agent, consultant, adviser or contractor to the Administrator or the Secretary of State, in connection with the functions of the Administrator of the Secretary of State;

15.2.7 necessary for the purpose of or in connection with any legal proceedings, including the obtaining of legal advice;

15.2.8 required to comply with any Act of Parliament or subordinate legislation made under an Act of Parliament, including requests made under the Freedom of Information Act 2000 or the Environmental Information Regulations 2004; or

15.2.9 required to meet any obligation to the European Union.

15.3 A relevant authority referred to in this Rule means:

15.3.1 either House of Parliament including any committee of either or both Houses;

15.3.2 any Government department;

15.3.3 the European Commission;

15.3.4 the Committee on Climate Change;

15.3.5 the Commissioners of Her Majesty's Revenue and Customs;

15.3.6 a person or body prescribed by or appointed under Part I of the Environmental Protection Act 1990 or regulations made under section 2 of the Pollution Prevention and Control Act 1999 or any corresponding legislation for Northern Ireland;

15.3.7 any regulator appointed under section 54 of the Competition Act 1998; or

15.3.8 any other public body, regulatory agency or government advisory body, where in the absolute discretion of the Administrator or the Secretary of State, as appropriate, the Administrator or Secretary of State considers that it would be obliged to disclose such information in response to a request for information under the Freedom of Information Act 2000 or the Environmental Information Regulations 2004, if such a request were made.

16. COLLECTION OF CHARGES

16.1 A Sector Association may request the consent of the Administrator to collect charges due from Operators to the Administrator in respect of facilities under the charging scheme.

16.2 If a Sector Association wishes to collect charges due from an Operator to the Administrator under the charging scheme, the Sector Association may serve a notice in writing on the Administrator by the last working day in February in the calendar year in which the charges fall due.

16.3 A notice served under Rule 16.2 must specify the facilities in respect of which the Sector Association intends to collect charges, being not fewer than 50% of the facilities covered by an umbrella agreement.

16.4 Following receipt of the notice, the Administrator must:

16.4.1 consent to the Sector Association collecting charges; or

16.4.2 refuse consent to the Sector Association collecting charges, giving reasons for the decision.

16.5 If the Administrator consents to the Sector Association collecting charges the Sector Association must:

16.5.1 itemise charges separately in any invoices that it issues in respect of charges;

16.5.2 collect and remit all charges collected to the Administrator without deduction or set off by the last working day in September in each year;

16.5.3 prepare an annual report to the Administrator by the last working day in October in the year in which it has collected charges setting out which Operators it has collected charges from and which Operators have failed to pay charges due to the Sector Association.

16.6 A Sector Association must not actively pursue any outstanding charges after the last working day in September in any year in which they fall due. If a Sector Association receives charges after this date the Sector Association must accept the payment and remit this to the Environment Agency along with information identifying the Operator making the payment.

16.7 If a Sector Association fails to comply with any of its obligations under this Rule the Administrator may serve a notice on the Sector Association that consent to the Sector Association continuing to collect charges is withdrawn at the expiry of 20 working days from the date of the notice.

17. SERVICE OF NOTICES

17.1 Any notice served under these Rules must be in writing and may be served by sending it by post or electronically.

17.2 The address for the service of all notices on the Administrator is:

Postal: Environment Agency
Lutra House
Dodd Way, Off Seedlee Road
Walton Summit, Bamber Bridge,
Preston, Lancs
PR5 8BX

Electronic: CCA-operations@environment-agency.gov.uk

17.3 The address for the service of all notices on the Sector Association is the address of the person set out in Schedule 2 to the umbrella agreement.

17.4 The address for the service of all notices on the Operator is the address of the responsible person.

SCHEDULE 2

THE OPERATOR

Princes Ltd

Whose address for service of all notices under this Agreement is
By post:
Royal Liver Building
Pier Head
Liverpool
Merseyside
L3 1NX
England

Administrative contact
Mr David McDiarmid

Electronically:
David.McDiarmid@princes.co.uk

SCHEDULE 3

THE SECTOR ASSOCIATION

FDF Climate Change Levy Agreement Ltd

Whose address for service of all notices under this Agreement is
By post:
6th Floor
10 Bloomsbury Way
London
WC1A 2SL
England

Sector Contact
Mr Stephen Reeson

Electronically:
stephen.reeson@fdf.org.uk

THE UMBRELLA AGREEMENT

The Agreement dated 04 Aug 2017 made between the Administrator and the Sector Association.

SCHEDULE 4

ACTIVITIES UNDERTAKEN BY A FACILITY FALLING WITHIN THE SECTOR

A facility belongs to the food and drink sector if it is a facility which treats and processes materials intended for the production of food products. For this purpose “food” includes drink, articles and substances of no nutritional value which are used for human consumption and articles and substances used as ingredients in the preparation of food. At an installation or site where refined salt for use in food products or supplements is prepared or processed from minerals.

SCHEDULE 5

FACILITIES TO WHICH THIS AGREEMENT APPLIES

Facility Identifier	Site Name & Address	EU ETS Identification
FDF1/F00622	Princes Soft Drinks Cardiff Portmanmoor Road, East Moors, Cardiff, CF24 5HB, Wales	
FDF1/F00623	Princes Soft Drinks Bradford Toftshaw Lane, Bradford, West Yorkshire, BD4 6SX, England	
FDF1/F00624	Princes Soft Drinks Manchester Lord North Street, Newton Heath, Manchester, M40 2HJ, England	
FDF1/F00625	Princes Soft Drinks Glasgow Bogmoor Road, Shieldhall, Glasgow, G51 4TJ, Scotland	
FDF1/F00626	Princes Foods Manufact. Div Terminus Road, Chichester, West Sussex, PO19 8TX, England	

SCHEDULE 6

TARGET UNIT TARGETS

Target Unit Identifier	Target Period	Target Type	Throughput Unit	Baseline Throughput	Primary Energy Consumption Unit	Baseline Energy	Numerical target (Percentage reduction from base year)
FDF1/T00556	TP1 (1 Jan 2013 to 31 Dec 2014)	Relative	tonne	892,326.8	kWh	204,086,083.6	213.101 (6.826%)
	TP2 (1 Jan 2015 to 31 Dec 2016)	Relative	tonne	892,326.8	kWh	204,086,083.6	204.191 (10.721%)
	TP3 (1 Jan 2017 to 31 Dec 2018)	Relative	tonne	892,326.8	kWh	204,086,083.6	195.283 (14.616%)
	TP4 (1 Jan 2019 to 31 Dec 2020)	Relative	tonne	892,326.8	kWh	204,086,083.6	186.375 (18.511%)

APPENDIX VII
LIST OF RAW MATERIALS

CARDIFF / MANCHESTER JUICE RAW MATERIAL USAGE

SKU	Description	Usage	
301630	66Bx Brazilian Concentrated Orange Juice	15,518,551	KG
303999	NFC Juice Apple English 12.5 Brix	1,428,850	KG
304281	APPLE Concentrate 70bx 2.5 - 2.7% acid	8,719,036	KG
307987	Sugar Liquid 67 bx	831,654	KG
395773	MEXICAN ORANGE CONC 66 BX	1,382,300	KG
395774	NFC Juice Apple 12 Brix	7,480,127	KG
399949	NFC Juice Apple Cloudy 11 Brix Cawston	884,484	KG
409774	Apple Juice Conc MULTIPLE MARKETING	777,454	KG
420424	APPLE Concentrate 70bx 2.3 - 2.5% acid	1,059,442	KG
	Supplied in Road Bulk Tank Loads	**38,081,898**	**KG**
301719	Grapefruit White 58bx Standard	27,621	KG
301729	Cells Orange Aseptic	482,345	KG
301742	Cranberry Concentrate 50 Brix N.America	343,528	KG
303982	NFC Puree Banana 21 Brix	189,303	KG
304018	NFC Puree Raspberry 9 Brix	106,300	KG
304282	Lemon Juice Conc 48 Brix Clarified	355	KG
304286	CHERRY (Sour) Conc 65bx	22,380	KG
304288	Pear Juice Concentrate 70 brix	4,562	KG
304290	Raspberry Juice Concentrate 65 brix	36,179	KG
304381	Blackcurrant Conc 65bx	18,476	KG
304545	CELLS ORANGE - Citrosuco (M&S)	28,560	KG
304575	Passion Fruit Juice Conc 50bx	3,924	KG
305475	GRAPE Juice (White) 65bx DRUMS	47,568	KG
306544	NFC Puree Mango Blend 15.4 Brix	770,253	KG
307599	Frozen Fruitmix Conc 7.56356.432 Dohler	97,350	KG
308922	APPLE Concentrate Organic 68bx	35,198	KG
309305	APPLE Conc 70bx (Low Acid 1.0 to 2.0)	310,260	KG
312570	ORANGE 66Bx Organic	26,420	KG
312625	GRAPEFRUIT CELLS Florida Pink	1,620	KG
312845	Pineapple/Coconut 7.93801.999 Dohler	26,127	KG
318695	NFC Juice Clementine 11.6 Brix	33,600	KG
320636	Tropical Concentrate FFF011/466 FDL	230	KG
321338	NFC Juice Grapefruit Pink 11 Brix	48,180	KG
321406	#Blueberry Conc 65bx (N.Americ - Oxford)	6,194	KG
321700	Pomegranate Juice Concentrate 65bx CLEAR	113,257	KG
323520	RED GRAPE JUICE CONCENTRATE 65 BX	113,162	KG
327131	NFC Puree Mango Alphonso 17 Brix	133,873	KG
328402	APP/STRAW/RASP KIDS SMOOTH FFF011/621	13,200	KG
328403	ORANG/MANG/PASS KIDS SMOOTI FFF011/620	9,000	KG
328477	TROPICAL FRUIT BASE 110806-15 Wild	55,210	KG
328946	Tropical Concentrate 45bx (Natural)	470,034	KG
329019	Cranberry Juice Con 50 Brix	201,908	KG
331417	Prune Juice Concentrate 70bx	361,137	KG
333909	NFC Puree Pear English 12 Brix	87,552	KG
335064	NFC Puree Cranberry 8 Brix	79,444	KG
335938	Fair Trade Ora Brazilian 66BX (Cocamar)	53,715	KG
341703	NFC Puree Strawberry Scottish 6 Brix	13,980	KG
341712	NFC Puree Cherry Sour 14.5 Brix	14,700	KG
345261	NFC Puree Raspberry 9 Brix CAWSTON	5,320	KG
345541	Orange 66bx (Belize)	519,324	KG
356465	TOMATO PASTE 36-38 ASEPTIC	617,645	KG
356667	Orange Comminute 4:1 (Aseptic)	1,596	KG
361390	Aronia Juice concentrate 66 Brix	4,101	KG
361410	PINEAPPLE Conc 65Bx	1,231,697	KG
363652	Cranberry Concentrate 50 Brix OceanSpray	4,119	KG
364151	NFC SPANISH LEMON JA TAYLOR	23,253	KG
364247	Lemon Cells (Spain)	3,274	KG
365458	NFC Puree Pear William 12 Brix	42,873	KG
375866	Mango Puree Conc 28bx (Totapuri)	378,954	KG
376259	PINEAPPLE Conc 60Bx	613,441	KG
377071	Pineapple Conc 65BX (Costa Rican)	49,753	KG
394304	COCONUT WATER NFC	4,400	KG
395772	NFC Juice Orange Brazilian 11.5 Brix	11,076,300	KG
400774	RIBENA B/CURRANT CONC MS/D60433 SO2	25,500	KG
402376	Aronia Juice conc 66 Brix (Limited Use)	8,935	KG
403557	NFC Juice Pineapple Costa Rican 12 Brix	1,718,510	KG
404015	STRAWBERRY BASE 9.00224 DOHLER	22,533	KG
404346	PINEAPPL & PASSFRUIT BASE 8.16898 DOHLER	5,001	KG
404517	UHT EVAPORATED MILK (7.5%) 1000ltr	21,000	KG
409688	GRAPEFRUIT PINK 58Bx (Mexican)	81,501	KG
415148	Pink Grapefruit cells (Aseptic)	15,010	KG
418965	NFC Pink Grapefruit Juice (South Africa)	385,380	KG
419535	NFC Mexican Lime	2,155	KG
422654	Strawberry Conc 65bx - BIB	6,568	KG
	Supplied in Steel Drums of c250kg	21,254,847	KG

CARDIFF / MANCHESTER JUICE RAW MATERIAL USAGE

SKU	Description	Usage	
301931	FLAVOUR NAT Grapefruit5.13465.992 Dohler	5	KG
307850	Shade Strawberry Red 12361 GNT	1,268	KG
310230	FLAVOUR NAT Raspberry 2.01447.387 Dohler	102	KG
313701	FLV NAT CRANBERRY F00443-1 20122282KERRY	4,074	KG
316128	FLAVOUR NAT Pear 2.05870.040 Dohler	320	KG
316769	FLAVOUR NAT Cherry 5.12669.800 Dohler	6	KG
319240	Shade Grape Blue 12360 GNT	6,362	KG
319824	AROMA NAT Orange 5.12902.992 Dohler	258	KG
323526	FLV NAT BLUEBERRY 20122858 F-11255 KERRY	41	KG
327125	FLV NAT MANGO F-26478/ 20124062/61 KERRY	694	KG
327644	RMV NAT PassionFruit PB3001945 Firmenich	591	KG
328370	FLV NAT TROPICAL 20122905 F-11097 KERRY	161	KG
328391	FLV NAT TROPICAL 20122844 F-11299 KERRY	148	KG
328392	FLV PINEAPPLE 20122921/329 F-10924 KERRY	93	KG
328396	FLAVOUR NAT Strawberry 5.80914.365Dohler	1,722	KG
328397	FLARasp5.14005.717/K83034/5.83034.387DOH	1,284	KG
328398	FLV NAT BLACKBERRY 5.85153.387 DOHLER	176	KG
329371	FLAV NAT BLUEBRY 20122285 /F-00919	40	KG
330396	FLA NAT RASP F-09530 20122650/4088 KERRY	1,484	KG
333020	FLV NAT CRANBERRY 20123860 F-26394 KERRY	794	KG
333686	Shade Cherry Red - GNT - 153330	759	KG
333687	Exberry Shade Orange Clear GNT 541501	147	KG
333689	FLV NAT APPLBLACK	450	KG
333807	FLAV PASSIONFRUIT 20122341 F-00357 KERRY	899	KG
333808	FLAV NAT COCONUT 20122343 F-00509 KERRY	623	KG
335781	FLAV NAT MANGO 20122332 F-00460 KERRY	95	KG
336007	FLV NAT STRAWBERRY 20122458 F-10812 KERR	580	KG
336629	FLAVOUR NAT Cream Soda 580358T Firmenich	5	KG
337472	FLAVOUR CHERRY 20122702 F-00009 KERRY	65	KG
338322	Shade Vimto 12644/23642 GNT>>421890	244	KG
338995	Sweet Enhancer 1108531V01 Vimto Sensient	66	KG
339343	FLAV SUGAR U4472 F-11380 20122572 KERRY	2	KG
342562	FLAVOUR VIMTO VX160 1111233 SENSIENT	479	KG
342591	FLAVOUR ORANGE 555785T FIRMENICH	93	KG
342599	FLAVOUR GUAVA 20124348/F-00755 KERRY	808	KG
342732	FLAV SOURSOP 1135803/F-16645 KERRY	106	KG
357751	ORANGE COL EMUL F-26638/20124129 KERRY	175	KG
357752	FLAV BLKCURRANT F-21354/20124245 KERRY	1,320	KG
361389	FLAVOUR NAT JAM 20122782 F-11525 KERRY	776	KG
361407	FLAVOUR NAT Apple U33325 Firmenich	417	KG
361413	943800 Raspberry500 FoldAromaNat Firmch	361	KG
361419	FLAV NAT ORANGE 20122610/20468489 KERRY	252	KG
364093	FLV CHERRY F-23322 20124150 KERRY	425	KG
364126	FLV POMEGRANATE KERRY F-23499 20124146	346	KG
366706	FLV MXD SPICE F-23866 20123957 KERRY	34	KG
367391	FLV PINAPLE NAT F-26462/ 20124063/64 KER	121	KG
368531	FLAV NAT Strawberry F-27997/20124055 KER	129	KG
368532	FLV NAT BLACKCNT 20127470/20468483 KERRY	20	KG
368675	FLAV NAT Apple 5.85271.368/.387 Dohler	286	KG
369423	FLV POMEGRANATE F-23469 20123879 KERRY	316	KG
371754	FLV RASPBERRY 088.00389/20291493 KERRY	459	KG
373583	FLV REDCURRANT F-10880	203	KG
374746	MIXED FRUIT FLV 580691T FIRMENICH	120	KG
375686	APPLE TOP NOTE - 5.97585 DOHLER UNIQUE	3,437	KG
375770	AROMA ORANGE OV8001 KERRY	2,120	KG
375782	AROMA ORANGE RESTORA 30592350/001 KERRY	962	KG
375867	#dx FLAVOUR MANGO F-27063 KERRY	84	KG
376770	#dx APPLE ESSENCE AP5112 KERRY UNIQUE	1,303	KG
377891	FLV FMT Flavouring 17863/20328486 KERRY	571	KG
378063	#dx FLV ORG Apple TopNote 809756 DOHL	11	KG
395137	FLV MANGO 088.00030 KERRY	1,561	KG
395769	FLV FTNF Apple Naturome 24838 Firmenich	4,667	KG
395770	FLV AROMA FTNF Orange 551221T Firmenich	696	KG
396580	FLV RASPBERRY 20327430/088.01565 KERRY	15	KG
399589	ORANGE RESTOR AROMA 20455584 OR4703 KERR	522	KG
399590	ORANGE RESTOR AROMA 20455582 OR4718 KERR	404	KG
399980	FLV APPLE TOPNOTE 5.13022 DOHLER	6,580	KG
405619	FLV Blackcurrant Prep 3910000217 (Wild)	22	KG
405620	FLV Blackcurrant Prep 3181250006 (Wild)	419	KG
414566	FLV ASTRINGENCY LQD 70341 Kerry 20505367	5,011	KG
418268	FLV Garden Mint 20044775 088.02058 Kerry	107	KG
419362	Orange Top Note 8.99929 DOHLER UNIQUE	907	KG
421890	VIMTO Shade Vimto 77139 GNT	13	KG
	Supplied in Plastic Polycans of c20kg	**60,219**	**KG**
120002	Ascorbic Acid (25kg)	20,491	KG
120003	Sodium Citrate (25kg)	3,226	KG
120005	Malic acid (25kg)	6,243	KG
123002	Sodium Saccharin	10	KG
123004	Aspartame (25kg)	1,083	KG
123005	Acesulfame K (25kg)	2,183	KG
124011	Sodium Gluconate	4,346	KG
301432	Citric Acid Anhydrous (25kg)	48,342	KG
301923	Sodium Benzoate Granular	810	KG
304541	Citric Acid Monohydrate	26,547	KG
304546	MEXPECTIN RS450 803676.03 Danisco	3,968	KG
304547	PDV Granulated Food Grade Salt	15,388	KG
310993	Calcium Lactate	2,762	KG
313680	Dextrose	9,115	KG
343764	Sucralose Powder	5,292	KG
365045	(SR) SEA SALT FINE 10863 (BPS M&S)	1,650	KG
374856	SWEETGEM 534199 SPM FIRMENICH	166	KG
404322	Sodium Lactate 60% Solution	401	KG
408124	Polydextrose (Sta- lite R90) Tate & Lyle	10,864	KG
	Supplied in Sacks of c25kg	**162,888**	**KG**