

Konings Juices and Drinks UK Ltd

Non Technical Summary

Proposed Extension To Site With Associated Changes to Environmental Licensing

Konings NV purchased the manufacturing assets from PepsiCo at their site in Boxford, Suffolk on the 1st September 2017 and created Konings Juices and Drinks UK Ltd.

The site continues to manufacture juice products under the current Discharge Consent Licence PRENF/19402, however in 2020 Konings will put into production a new high-speed bottling line that will take its daily potential production output over the RGN2 A(1)(d)(ii) specified limits for processed vegetable (and fruit) raw materials. The application for a Bespoke Environmental Permit is in response to this requirement.

The facility produces a range of pasteurized, not from concentrate fruit juices and juice drinks.

The Konings facility occupies a site in a commercial apple orchard on the Stoke Road in Boxford in the Suffolk countryside. The site has previously been a part of PepsiCo between 1997 and 2016 and has been manufacturing Juices and Juice Drinks on site since 1968 when it was established by the owner of the orchard. Konings hold a long-term lease on the land from the original owners now trading as Boxford Suffolk Farms.

Annual production is approximately 40 million litres of finished product so although site has the theoretical capacity to exceed the RGN2 A(1)(d)(ii) specified limit it will not actually exceed the capacity for some time on current forecasts. The second PET bottling line on site will increase the theoretical capacity of the site without initially increasing the actual output of the site. The current theoretical maximum finished product output of the site is 252 tonnes in 24 hours, this would rise to 630 tonnes in 24 hours on installation of the second PET line.

The production process is as follows:

Raw ingredients, whole fruits and tankers and drums of juice and purees are brought to site and in our processing area either pressed to extract juice or unloaded and tipped into storage tanks. The juices and purees are blended on site to make finished products according to customer recipes. Some of these products include a water addition as trends in juice consumption turn to lower calorie products.

All final juice blends are pasteurised before being filled into PET bottles and those bottles packed into cases and onto pallets for immediate onward despatch to our customers distribution networks.

The buildings cover an area of approximately 7500m².

Emission points from the site include:

Two boiler stacks which emit flue gases to air from the burning of either LPG or Fuel Oil. Monitoring of emissions is carried out as part of a Planned Preventative Maintenance procedure using an external contractor. The boilers are serviced frequently, oxygen and carbon monoxide levels are

monitored constantly to confirm the combustion is within expected parameters and alarmed if they go outside normal parameters

A “scrubber” which treats a vapour extracted from our bottle cleaning process and which emits water vapour from a stack on the roof which is also monitored by an external company

A Waste Water Treatment Plant which discharges treated water into either a land locked lagoon on Boxford suffol Farm or a Tributary of the River Box.

All monitoring of effluent releases is carried out by EA sampling as part of our Trade Effluent Consent.

Daily monitoring is carried out by the on site laboratory and results reacted to appropriately.

The facility employs approximately 90 staff, of which 69 belong to production, working a four shift pattern to cover production on a 24 hour 7 day basis.

The building is well maintained and equipment is manufactured from food grade stainless steel.

The site currently holds a Water Abstraction Licence (8/36/16*G/0043) and a Discharge Consent Licence (PRENF/19402/V001). The Discharge Consent Licence has two output points, a land locked lagoon on the adjacent farm (all year round) and an unnamed Tributary of the River Box (between 1st Nov – 31st March), it allows for a maximum discharge of 350m³ per day from the plant through either discharge points. As part of the Bespoke Environmental Permit site would ask to amend the Discharge from the current “either/or” licence where the plant can discharge either 350 m³ / day to a tributary of the River Box or to a land locked lagoon on the Boxford Suffolk Farms site to an “and” licence where we could discharge 350m³ / day to both the lagoon and the tributary simultaneously bring the maximum discharge to 700m³ / day.

The likely emission sources we have identified in preparing for this extension are:

	Normal Running	Event of Failure
Processing		
Apple Pressing	Apple Pomace	-
Cleaning	Water + Sodium hydroxide / nitric acid + surfactants	Concentrated cleaning chemicals
Services		
Boilers	Stack emission - Nox & Sox	Treatment Chemicals
	Condensate	
	Steam vapour	
Fuel Sources		LPG / Fuel Oil
Chiller - Cooling Tower	Water vapour	Treatment Chemicals
Chiller - Ammonia		Ammonia
Chilling - Glycol		Glycol
Air Handling		Compressed air emission
Heating Processes	Steam vapour	
Sterilising processes	Hydrogen peroxide / Paracetic acid vapours	Hydrogen peroxide / Paracetic acid liquids

Water Sterilisation		Treatment Chemicals
RO / NF Water Plants		Treatment Chemicals
Cleaning process	Dilute Sodium Hydroxide (Caustic Soda)	Concentrated Sodium Hydroxide
	Dilute Nitric Acid	Concentrated Nitric Acid
Waste Water Treatment Plant		
Activated Sludge		Coagulants and flocculants
Acid correction		Sodium Hydroxide / Hydrochloric acid
Nutrient dosing		Urea / Phosphoric Acid
Vehicles		
HGV Movements / FLT	Exhaust fumes	Diesel spillage
Internal drainage		Product / water / cleaning fluids

All process wastewater is treated via the on-site activated sludge waste water treatment plant before being discharged within the site consent limits. Significant investment in the waste water treatment plant has taken place to upgrade the plant. The new PET filler utilises the latest “dry” technology to minimise water usage and hence discharge volumes.

The site has completed a Legal Register as part of its ISO14001 compliance programme, this register is attached to the application.