Attachment G.1 - Raw Materials and Product

Table G.1 (overleaf) contains details of all raw materials, substances, fuels, and energy used in the operation of the site.

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Table G.1 Details of Process related Raw Materials, Intermediates, Products, etc., used or generated on the site.

Ref.	Material / Substance (1)	CAS Number	Danger ⁽²⁾	Amount	Annual	Nature of Use	R (3) -	S ⁽³⁾ –
N <u>°</u> or			Category	Stored	Usage		Phrase	Phrase
Code				(tonnes)	(tonnes)			
	Kleenkil (or similar)		Irritant	250 litres	900 litres	Bin Wash	R36/38	S24/25
	 Coco benzyl dimethyl 							
	ammonium chloride	61789-71-7	Corrosive &				R22/34	-
	(<10%)		Harmful		, 1 ¹ 5			
	 Fatty alcohol 	68131-39-5			other		R22/36/38	-
	ethoxylates (<20%)		Harmful		ouly, any other tre			
	Fragrance Pear (or similar)		-			Bin Wash / Deodourising	R10	-
	 Isopentyl acetate 			ction of red				
	(<10%)	123-92-2	Flammable	200 IICres				
	Nalco Oxygen Scavenger 3 (or		Irritant 💛	200 litres	1000 litres	Boiler Water Treatment	R31,	S24/25,
	similar)		entote				R36/37/38	S26, S28,
	- Sodium bisulfite		Consent of co					S37/38
	Nalco NDT Confidence 40C (or		Corrosive	200 litres	1000 litres	Boiler Water Treatment	R31,	S23,
	similar)						R34	S24/25,
	- 2 Diethylamnioethanol			į				S26, S28,
	- Sodium bisulfite							S37/39,
	- Sodium sulfite							S45
	- Potassium sulfite							
	Diesel fuel	68334-30-5	Harmful	200litres	2000 litres	Fork lift operation	R40	S36/S37

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	Lubricating Oil	74869-22-0	Toxic	250litres	800 litres	Shredder gear box	R45	S45, S53
-	Electricity	N/a	N/a	N/a	1.523m	Site Operations	N/a	N/a
					kWh			
	Natural Gas	N/a	N/a	N/a	510000	Packaged Steam Boiler	N/a	N/a
					m3			

Notes: 1.

- 2.
- 3.

Attachment G.2 - Energy Efficiency

The site uses only relatively small amounts of energy. Anticipated energy consumption details are provided in Table G.1 (above).

The energy efficiency of the entire process has been considered when developing the design of the extended site. For example, the process has been modified such that the waste from the treatment (disinfection) process is fed directly to the recovery (process) instead of into flexible IBCs reducing the energy required to produce a dry flock.

If the existing waste handling arrangements were retained and the waste was held for 48 hours prior to processing in the recovery plant the heat from the treatment process would have been lost as the waste cooled to ambient temperatures. This energy would then need to be added again in the dryer to drive off the water in the waste. Given the high water content of the flock the energy required would be substantial.

In addition, energy efficiency of the entire process will be maintained by the regular scheduled maintenance of the boiler natural gas burner and through the maintenance of drives and gear transmission systems.

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