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ENVIRONMENTAL PROTECTION ACT 1990 - PART 1

APPLICATION FOR AUTHORISATION TO OPERATE

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Page: 1

No: KIM.1 **ISSUE ENVIRONMENTAL PROTECTION ACT 1990** Date: AUGUST 1992 CONTENTS PART 1: Application for Authorisation under Section 6. PART 2: Existing Site Details: 2.1 Drg. No. KIMB/423-01 Site Plan. 2.2 Drg. No. KIMB/423-02 Location Plan. 2.3 Drg. No. KIMB/423-03 Elevations. PART 3: Description of Process: 3.1 Intake. 3.2 The Process. 3.3 Services. 3,4 Number employed and organisation chart. Appendix 1: Flow Diagram Drawing No. KIMB/423-04. - } see page 4 Simplified Flow Diagram KIMB/423-05. Environmental Policy Statement 6.6.91. Appendix 2: Raw Materials Used at Mill. - See page 4 Appendix 3: Finished Product Produced at Mill. Details of current/anticipated emissions and proposed techniques to PART 4: minimise emissions: Appendix 4: Elevation Drawing showing positions of outlets. Drg. No. KIMB/423-06. PARTS 5: Proposals for monitoring, sampling and measurement of emissions. PART 6: Assessment of consequences of emissions.



No: KIM.1 ISSUE **ENVIRONMENTAL PROTECTION ACT 1990** Date: AUGUST 1992 PATHFINDER HOUSE TEL NO. 0480 456161 FAX NO. 0480 414764 ST. MARY'S STREET HUNTINGDON **CAMBS** PE18 6TN THE ENVIRONMENTAL PROTECTION ACT 1990 PART 1 APPLICATION FOR AUTHORISATION UNDER SECTION 6 1. Process for which authorisation Straw Upgrading Process. is sought: 2. Details of applicant: Unitrition International Ltd a) Name: Station Road, Tilbrook, Address: Huntingdon, Cambs. PE18 6JY Tel.No. 0480 860745 0480 860781 Fax.No. The Square Address of Registered/Principal b) Office (if applicant is Body Basing View, BASINGSTOKE Corporate) Hants, RG21 2EQ 0256 843210 Tel.No. 0256 841246 Fax.No. Unitrition International Ltd c) Address for correspondence (if different from a) or b)) Olympia Mills, Barlby Road, SELBY, North Yorkshire, Y08 7AF 3. Name and Address of the premises As (a) above where the process will operate Tel.No. Fax.No. Huntingdonshire District Council 4. Name of the Local Authority in whose area the process will operate:

AUTHORISED:

Page:

2



ENVIRONMENTAL PROTECTION ACT 1990		ISSUE	No:	KIM.1
			Date:	AUGUST 1992
5. List details of all maps, planapplication (see Notes)	ns and other d	locuments co	mprising	part of the
Site Plan Location Plan Elevations	- Drg	No. KIMB/42 No. KIMB/42 No. KIMB/42	23-02	
Detailed Process flow diagram Simplified Process flow diagram Elevations Showing Outlets	- Drg - Drg	No. KIMB/42 No. KIMB/42 No. KIMB/42	23-04 23-05	
6. Name of newspaper(s) in which yo propose to advertise the application		Hunts Post a	and Trad	er
7. Fee enclosed (cheques made payal to Huntingdonshire District Cour		0.00		
I hereby certify that all information contained in this application is, to best of my knowledge, correct				
Signed: 18-9-92	Name: J S BAT Capacity/Desi of Signatory:	gnation	manager	
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ENVIRONMENTAL PROTECTION ACT 1990	ISSUE	No: KIM.1 Date: AUGUST 1992
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THE FOLLOWING INFORMATION IS REGARDED AS COMMERCIAL	LY CONFIDENT	IAL.
THE PROCESS WHICH IS DESCRIBED IN SOME DETAIL HAS BE AT GREAT COST IN BOTH MANHOURS AND FINANCIAL TERMS.	EN PERFECTED	OVER THE YEARS BY UIL
THE BALANCE OF RAW MATERIALS USED IN THE YEAR, AS DINOWLEDGE OF OUR FORMULATIONS.	DESCRIBED, WO	ULD GIVE A COMPETITOR
DETAILS OF RAW P. 13 MATERIAL USAGE P. 13	lamon Regist	ed from Public les on grounds
DRAWING 423 - 04 } how Diagrams DRAWING 423 - 05 } how Diagrams) of a	ommercial rentiality.
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AUTHORISED:		Page: 4



ENVIRONMENTAL PROTECTION ACT 1990

ISSUE

No: KIM.1

Date: AUGUST 1992

2. <u>EXISTING SITE DETAILS</u>

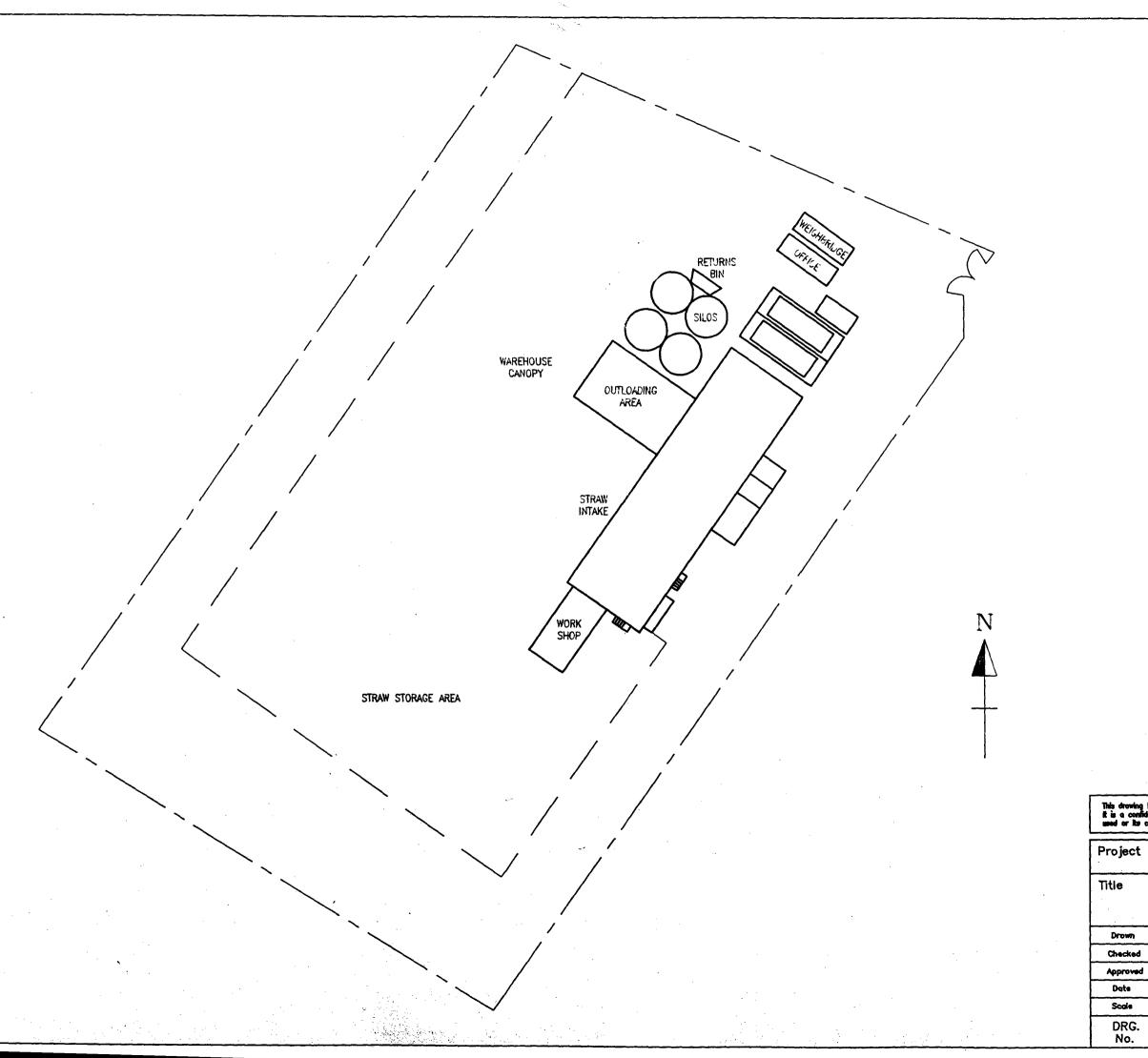
2.1 Drawing No. KIMB/423-01 Site Plan

2.2 Drawing No. KIMB/423-02 Location Plan

2.3 Drawing No. KIMB/423-03 Elevations

AUTHORISED:

Page: 5



KIMBOLTON

SITE PLAN

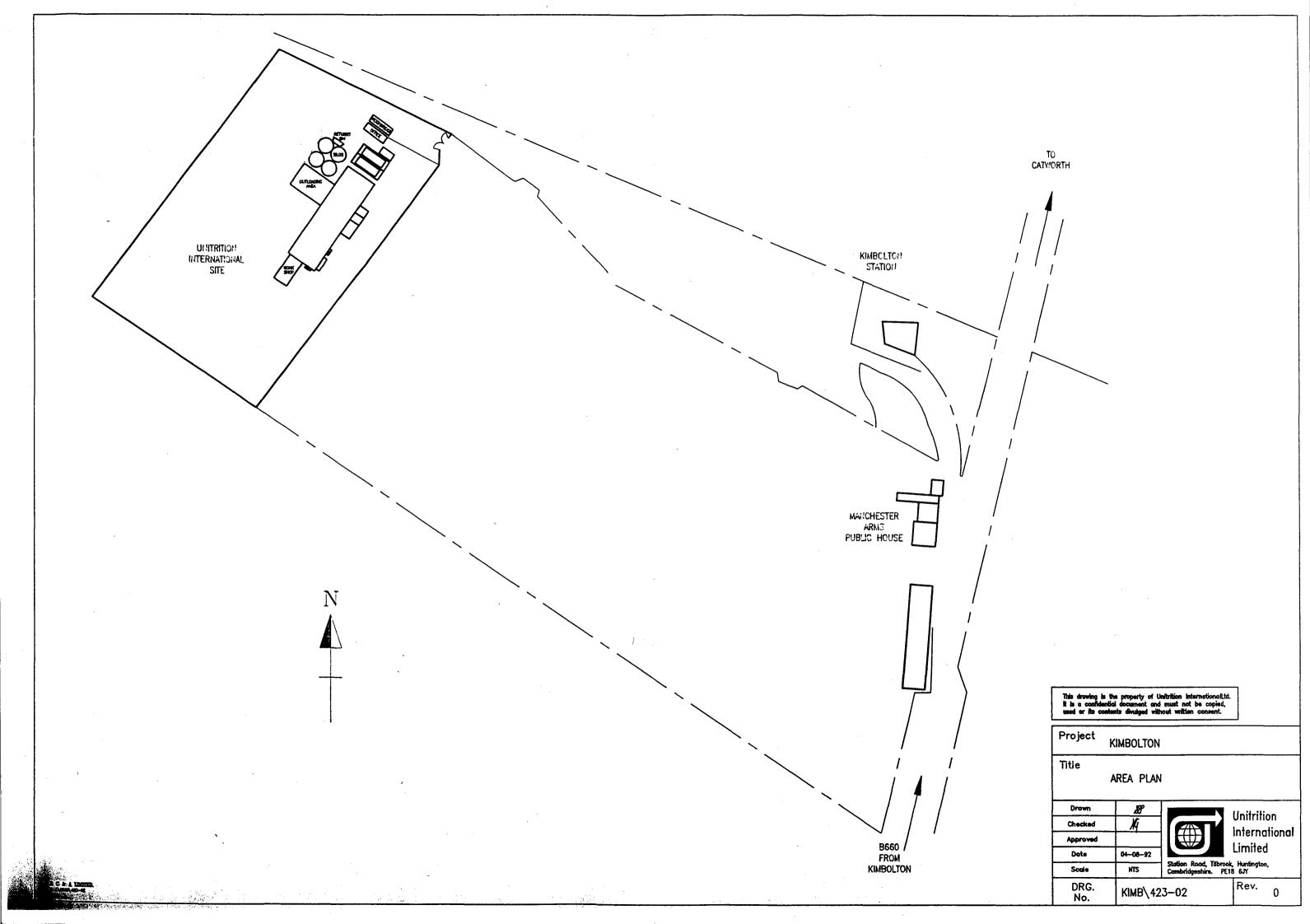
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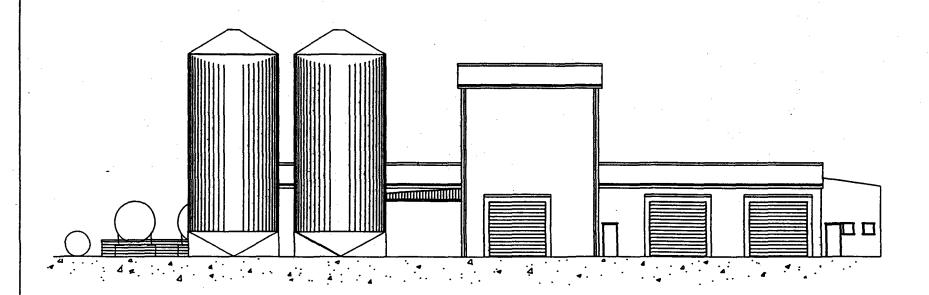


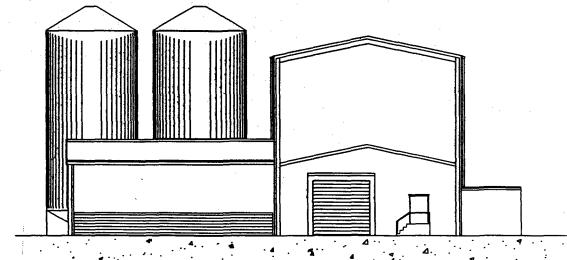
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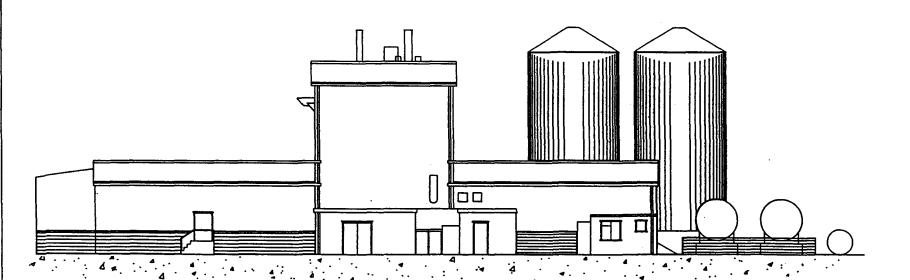
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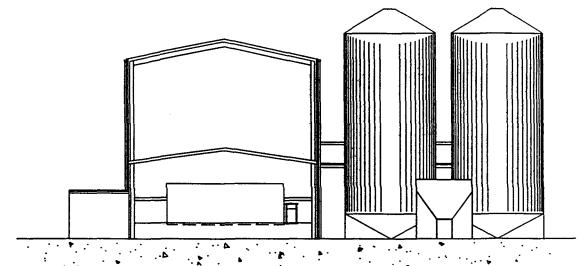




NORTH ELEVATION

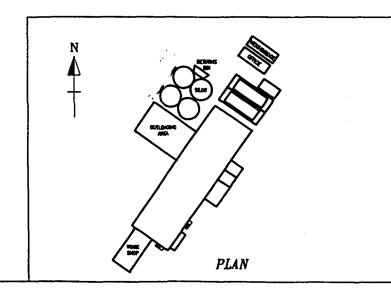


WEST ELEVATION



SOUTH ELEVATION

EAST ELEVATION



This drawing is the property of Unitrition InternationalLt it is a confidential document and must not be copied, used or its contents druked without written consent.

Project KIMBOLTON

Title

PLAN & ELEVATIONS

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ENVIRONMENTAL PROTECTION ACT 1990

ISSUE

No: KIM.1

Date: AUGUST 1992

3. <u>DESCRIPTION OF PROCESS (See Flow Diagram Appendix 1)</u>

Kimbolton mill was built in 1975 and upgrades straw for the use in animal feedstuffs by chopping, grinding and treating with sodium hydroxide to produce a pelleted finished product, specifically:

3.1 INTAKE

Straw is brought in by lorry, weighed at the mill office weighbridge and then unloaded mechanically and stacked in the mill yard.

Liquids (Sodium Hydroxide)

This is brought in by special road tanker lorries and, after weighing, is pumped by integral lorry pumps into the 70 tonne capacity storage tank. This tank is bunded and fitted with both visual and audible level control devices.

3.2 THE PROCESS

A single line continuous process controlled by level detectors and infra red detectors all under the control of a micro processor.

3.2.1 Chopping

Hesston bales of cereal straw weighing approximately 0.5 tonnes are fed to two drag link conveyors, after the strings have been removed. These conveyors each feed a tub grinder situated in an enclosed room to contain any dust. The grinders reduce the baled straw down to a particle length of 50mm.

The ground straw is transported by screw conveyor to a storage conveyor on tub 1. In tub 2 the straw is removed pneumatically through a cyclone which has a rotary seal to give a slightly negative pressure then by auger to the storage conveyor. The cyclone is also fitted with a detection device for blocking.

The speed of the storage conveyor is controlled by the micro processor to accommodate the rest of the process.

AUTHORISED:	Page:	6



ENVIRONMENTAL PROTECTION ACT 1990

ISSUE

No: KIM.1

Date: AUGUST 1992

3.2.2 Grinding

The chopped straw is transported from the storage conveyor and fed into an air stream.

At this point warm air can be injected into the air stream to dry the straw as required. The straw is pneumatically fed through a hammer mill. This reduces the straw length to a grist of 10mm and then into a cyclone. The cyclone is fitted with a rotary seal. This gives a slightly negative pressure in the cyclone. The cyclone is also fitted with a detector to indicate any build up of material. The air stream is then passed through a second cyclone, also fitted with a rotary seal and detection equipment, then exhausted to atmosphere.

3.2.3 The Mixer

The material is fed from the rotary valve into a 2 meter paddle continuous process mixer. At this point sodium hydroxide and water can be sprayed on to the material. The amount sprayed is controlled by the micro processor.

3.2.4 Extrusion

On leaving the mixer the material is transported by screw conveyor to the two Hanson cubing presses. The presses form the material into 8mm pellets, it is then fed to an inline band weigher and into the cooler.

3.2.5 The Cooler

The cooler is best described as a very large oblong box with a moving floor. It is volumetrically controlled and holds 5 tonnes of finished product.

As the product moves through the cooler, air is pulled through the floor of the cooler and through the product. This has the effect of reducing the temperature of the finished product and removing any fines. The air is exhausted through a cyclone to atmosphere.

The cyclone is fitted with a rotary seal to give a slight negative pressure and also detectors to indicate any build up of material. Any fines are fed back post the mixer back into the cubing presses.

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ENVIRONMENTAL PROTECTION ACT 1990

ISSUE

No: KIM.1

Date: AUGUST 1992

3.2.6 Storage

On leaving the cooler, the product is fed through screw conveyors and bucket elevators to one of four bulk silos. Each silo has a capacity of 125 tonnes.

3.2.7 Outloading

There is one outloading point for bulk where lorries position themselves in the loading bay and the product is fed from a designated silo by screw conveyor and bucket elevator into the lorry. The lorry is then weighed out at the weighbridge office.

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3.3 SERVICES

Compressed air is generated by reciprocating piston air compressor at 18.6 CFM dried with a refrigerant drier and distributed by standard receiver and fixed pipe system.

Drying air is generated by one gas oil fired burner and has a maximum output of 400 Kw.

Water for use in the process is taken from the 1,000 gallon day tank which is fed by the town mains.

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AUTHORISED:	Page: 8	



ENVIRONMENTAL PROTECTION ACT 1990

ISSUE

No: KIM.1

Date: AUGUST 1992

3.4 NUMBER EMPLOYED AND ORGANISATION CHART

The site staff comprises of an average of nine people. Of these seven are associated with the mill and the remainder with the office. The mill is managed by a Plant Manager, holding a technical qualification up to HND/ONC standard. He/she is responsible for three technician supervisors, four mill operatives, of whom one is a dedicated cleaner, and a weighbridge clerk.

The technician supervisors are qualified up to ONC or approved apprenticeship level, with experience in continuous single line processes. Mill operatives require no formal qualifications above common sense, good numeracy and literacy.

The site operates 24 hours per day. Production is organised on an 8 hour, 3 shift system. Each shift comprises of one technician supervisor and one mill operative.

The basic working week is 39 hours. The normal production week starts at 6.00 a.m., on Monday and runs through to 6.00 a.m., on Saturday. Extra production shifts are worked when required in multiples of 8 hours. Maintenance is performed at the weekends or during weekday shutdowns.

The basic working week for all people employed on site is 39 hours. To compensate for the extra time worked, six days are nominated during the less busy summer months when a long weekend is taken. During the Managers absence the shift technician assumes responsibility.

The mill staff organisation looks as follows:

Plant Manager

3 Technician Supervisors

Mill Operatives

Weighbridge Clerk

AUTHORISED: Page: 9	9
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ENVIRONMENTAL PROTECTION ACT 1990

ISSUE

No: KIM.1

Date:

AUGUST 1992

3.4 NUMBER EMPLOYED AND ORGANISATION CHART (Cont'd...)

The Plant Manager has overall responsibility for the site on a day to day basis. The weighbridge clerk plans the intake of raw materials. Finished product despatches are planned from the Head Office at Selby. Staff at all levels are informed and made aware of environmental issues and Company policy in a number of ways:

- 3.4.1 All employees have been issued with a copy of the Company Environmental Policy Statement (copy in Appendix 1).
- 3.4.2 All capital proposals submitted to request authorisation for investment in new or replacement equipment and systems must contain an environmental assessment.
- 3.4.3 Regular health, safety and environmental committee meetings are held at each location. The committee is made up of the Technical Manager, Plant Manager and all other personnel employed on that site. Approximately four such meetings are held and minuted each year. As well as providing a forum for information and discussion on environmental issues, an environmental audit is carried out prior to each meeting.

AUTHORISED:

Page: 10



		ICCLIE	No:	KIM.1
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EPA APPL	ICATION - PART 3			APPENDIX 1
1.	Drawing No. KIM/423-04 Flow Diagram.			
2.	Drawing No. KIM/423-05 Simplified Diagra	am.		
3.	Copy of BOCM Silcock Environmental Police	y Statement	- 6.6.9	1.
4.	Environmental Audit Check List.			
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ENVIRONMENTAL PROTECTION ACT 1990	ISSUE	Date:	AUGUST 1992

EPA APPLICATION - PART 3

RAW MATERIALS

The mill uses a limited variety of raw materials, in liquid and solid form. The vast majority of raw materials are delivered in bulk by lorry or tanker.

The mill maintains a stock of approximately 120 tonnes of straw stacked in the storage area and approximately 35 tonnes of sodium hydroxide in the storage tank.

Table 1 shows the total amount and type of raw material delivered into the factory January/December 1991.

AUTHORISED: Page: 12

AUTHORISED:



Page: 14

	ICCLIE	No:	KIM.1
ENVIRONMENTAL PROTECTION ACT 1990	ISSUE	Date:	AUGUST 1992
EPA APPLICATION - PART 3			
FINISHED PRODUCTS			
The mill has the capacity to produce 30.0k tonnes per Finished products are all extruded in 8mm pellets.	r annum of bu	lk finis	shed products.
Finished products are collected by customers and thi transport. Collections vary from 15-24 tonnes.	.rd party hau	liers in	a variety of



ENVIRONMENTAL PROTECTION ACT 1990	ISSUE	No: KIM.1		
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DETAILS OF CURRENT/ANTICIPATED EMISSIONS				
The emissions from the mill will, even in emerge equipment malfunction, consist only of product or raw in very localised nuisance and on site mess rather t	material fir	nes whic	h would result	
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ENVIRONMENTAL PROTECTION ACT 1990	ISSUE	No:	KIM.1 AUGUST 1992
MAINTENANCE			

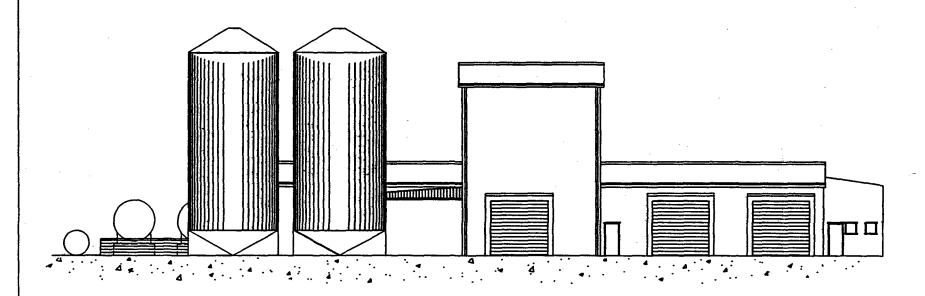
The factory is shutdown for three weeks during the year for major overhaul. There is also a maintenance programme carried out where the factory is shutdown on a weekly basis for at least 6 hours for the internal cleaning and inspection of machinery.

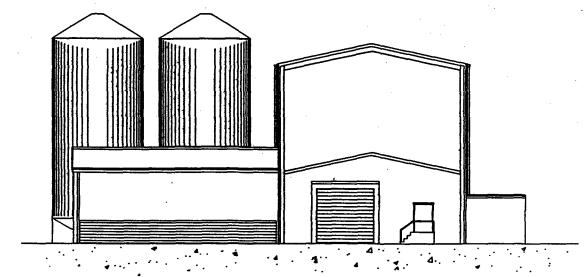
The Plant Manager details maintenance work to the three technicians and, when necessary, the manufacturers are requested to service specialised equipment.

AUTHORISED: Page: 16

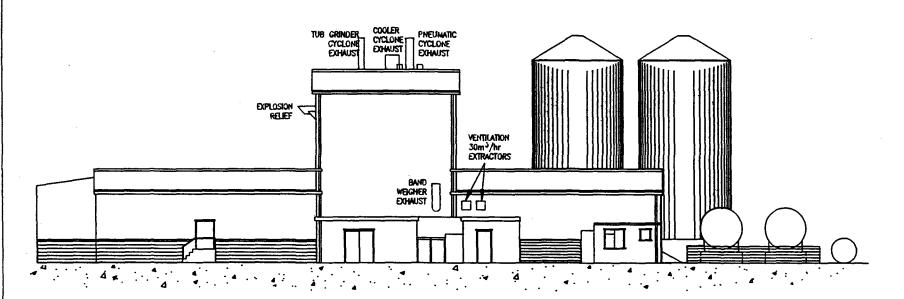


ENVIRONMENTAL PROTECTION ACT 1990		ISSUE	No:	KIM.1	
				Date:	AUGUST 1992
EPA APPLICATION - PART 4					APPENDIX 4
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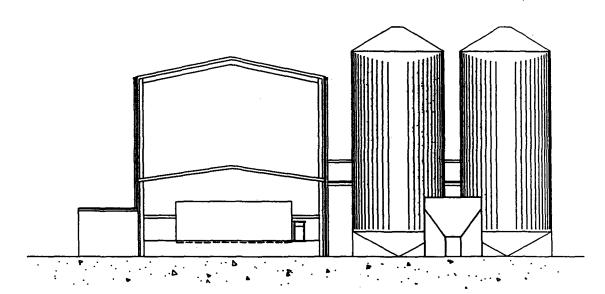




NORTH ELEVATION

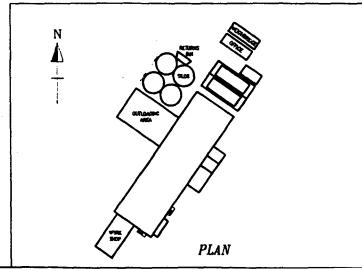


WEST ELEVATION



SOUTH ELEVATION

EAST ELEVATION



used or its or	ontents divulged wit	hout written consent.	
Project	KIMBOLTON		
Title	PLAN & E SHOWING OF OUTLE	POSITIONS	
Drawn	289		Unitrition
Checked	14		International
Approved			
Date	05-08-92		Limited
Scale	NIZ	Station Road, Tilbro Combridgeshire. PE	
DRG. No.	KIMB\42	23-06	Rev. 0



ENVIRONMENTAL PROTECTION ACT 1990

ISSUE

No: KIM.1

Date: AUGUST 1992

PROPOSALS FOR MONITORING, SAMPLING AND MEASUREMENT OF EMISSIONS

It is proposed that a priority detector be installed on all pneumatic exhausts. This would be continuously monitoring, linked to an alarm set well below 50MG/M³. The detectors would be serviced and calibrated regularly by the manufacturer/agent to an agreed recommended programme.

Daily Checks

Mill operating personnel will make visual checks for emissions and also a sniff test for odour emission at the site boundary at least once every production shift. The results of these observations will be noted on the shift production log sheets.

Assessment of Consequence of Emissions

The ingredients of our products, with the exception of a very small element, are naturally occurring and low risk substances.

The philosophy upon which our manufacturing operations are based is to keep, as far as reasonably practicable all ingredients, dust, finished products and wastes contained and enclosed within the process plant and equipment.

The potential of all substances used on site to create harm to our employees has been assessed under the COSHH Regulations, as have the procedures for safe handling and use during manufacture.

AUTHORISED: Page: 18



ENVIRONMENTAL PROTECTION ACT 1990	ISSUE	No: KIM.1	
ENVIRONMENTAL PROTECTION ACT 1990		Date: AUGUST 1992	
Unitrition International Limited is a wholly owned and operates under the control of the BOCM Silcock	subsidiary o Ltd., Board	of BOCM Silcock Ltd., of Directors.	
All environmental policies that are applicable applicable to its subsidiaries.	to BOCM Sil	cock Ltd., are also	
		,	
AUTHORISED:		Page: 19	

BOCMS ENVIRONMENTAL POLICY STATEMENT

Our Policy

BOCM Silcock cares about the environment and is pledged to protect it. Our corporate strategy, in line with that of Unilever, is to do all that is practicable to:

- develop and market quality products which are wholesome and environmentally acceptable.
- incorporate consideration of environmental factors into the main stream of our commercial decision making.
- operate our manufacturing operations in an environmentally responsible manner to ensure the health and safety of both our own employees and our neighbours.
- design operate and maintain our processes and plants so that they satisfy, at a minimum, all national and local health, safety and environmental legislation.
- establish and maintain procedures for the environmental auditing, monitoring and control of all our operations.
- together with central Unilever advisory services and working closely with all relevant Government and Local Authority environmental agencies, continuously re-assess our operating processes.
- ensure all our employees are adequately trained and aware of their environmental responsibilities.

2 Our Organisation

The responsibility for implementing and achieving our policy lies directly and personally with line management, from the Board of Directors through to every employee.

The policy and its implementation throughout our Company is the overall responsibility of the Board of Directors of BOCM Silcock Limited through the Technical Director.

The authority for ensuring that our Policy objectives are achieved within all functions at each of the undermentioned locations has been delegated to the following senior managers:

Feed Division

: Company Chief Engineer

Paul & Vincent

: General Manager

SOC/UIL

: General Manager

Fulmar Feeds

: General Manager

These senior managers are responsible for ensuring that together with their Area, Regional and Unit managers they define, as far as is practicable, the specific policies, organisation, responsibilities and arrangements within their own areas of operation that are necessary to implement our overall Company policy.

Senior management performance in achieving the Policy objectives will be formally assessed as part of their annual appraisal.

3 Our Employees

Our employees are the most valuable resource that our business posesses. The provision of a safe and healthy work environment is one of the highest priorities within our overall business strategy.

It is therefore Company policy to:

- Constantly identify and implement programs to improve the working environment and the health and safety facilities for our employees.
- Improve employee awareness of the importance of HS & E matters to our business through regular line management communication and training sessions.
- Encourage personal commitment of line management to pro-actively improve HS & E aspects of the business as part of the formal Company assessment and appraisal procedures against agreed elements of each individual's job description.
- Provide all necessary protective clothing and equipment necessary in our manufacturing operations.
- Set up and maintain a comprehensive system of sound HS & E procedures.
- Set up and sustain regular meetings of management and employee representatives to promote discussion and involvement in HS & E matters.
- Carry out regular audits to ensure HS & E standards are being maintained throughout our manufacturing and administrative operations.

4 Our Neighbours

Our neighbours and the communities local to our operations have every right to enjoy their homes, gardens and quality of life without any environmental inconveniences arising from our operations. We will therefore:

- Conduct our operations in an environmentally responsible manner with due regard to our neighbours.
- Be sensitive to the needs and concerns of the local community.
- Take active interest in local community affairs.
- Maintain close contacts with relevant local authority departments, e.g. Environmental Health, etc. Keep them informed of any occurrences with potential environmental consequences and work with them openly to solve problems.
- Maintain contacts with local residents' groups and the like.
- Be always courteous and log, investigate and respond promptly to any complaints.

5 Our Products

We are proud of our product range and aware of the responsibilities which attach to the manufacture of food for farm animals.

We therefore have a total commitment to:

- Minimise the environmental impact of our products and packaging, both directly and indirectly.
- Insist on the highest standards of quality and hygiene from our suppliers of raw materials.
- Supply a range of consistently high quality feeds to our farmer customers which will allow them to optimise total diets.
- Provide total quality assurance through rigorous testing at our own laboratories.
- Constantly improve performance and value for money through significant investment in Research and Development.
- Support our products through the highest levels of customer service embodied in our Charter for Customer Service.
- Maintain good contacts with our farmer customers and work with them to identify and provide their feed requirements.
- Establish and maintain a responsible approach to the packaging and transportation of our products.

6 Our Operations

- Ensure that all Capital Proposals for new investment contain a statement on the environmental implications.
- Establish and maintain procedures to assess the safety and environmental impact of any modifications to processes or control systems.
- Identify environmental risks and formulate emergency plans for all our manufacturing sites, offices, laboratories, farms and transport operations.
- Conduct our manufacturing operations so as to minimise the generation of waste materials and ensure that they are either reprocessed or disposed of responsibly.
- Progressively reduce the energy per tonne required by our manufacturing processes.

7 Our Achievements

Our policy is not just words. Actions have already taken place and a further ongoing program has been established and is currently in progress.

The need for continuous assessment and improvement across the broad front of our business operations is recognised.

A few examples of our achievements and ongoing actions in this area are:

- We spent more than £800,000 on safety and environmental improvements in 1990 and in excess of £2m will be spent in 1991. Examples of projects completed already include improved dust collection, noise reduction and numerous hygiene and safety improvements.
- We established the highest quality standards for our products within the industry through our Seal of Quality initiative. We are confident that our application for BSS750 quality approval will soon be granted.
- Our quality test laboratory has been developed to be the largest of its type in Europe and is the only feed manufacturers laboratory approved by the MAFF for Salmonella testing.
- We have completed noise and dust audits for our manufacturing operations and have now commenced a capital investment program to reduce both.
- We have set up and initiated, in line with other Unilever companies, a formalised and comprehensive system of self auditing both to improve HS & E conditions within our operations and to maintain them into the future.
- We have identified named members of the Board and Senior Management to take specific responsibility for HS & E matters.
- Through the National Industry Association, UKASTA, we have been proactive in improving relevant environmental legislation and tightening quantitive environmental standards.
- We have made financial contributions to Unilever Research Ltd., to set up and operate an Environmental Engineering section to provide a centre of expertise and advice on best current practice in environmental matters.

RFC/mjg 6.6.91