REGISTRATION PURSUANT TO SECTION 49 OF THE ENVIRONMENTAL PROTECTION ACT

NAME OF UNDERTAKING: **Feed Kitchen and Pelting Operation - Charleston, Bonavista Bay**

PROPONENT:

(i) ***Name of Corporate Body:*** **Charleston Mink Company Ltd.**

(ii) ***Address:***
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(iii) ***Chief Executive Officer:***
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THE UNDERTAKING:

(i) ***Nature of the Undertaking:***

Proposed development of a feed kitchen and pelting operation in Charleston, Bonavista Bay. The facility is being developed to provide feed and pelting services to Harcourt Fur Farm Inc. and to the provincial fur industry, especially on the East Coast. The project will be established in a former fish plant in Charleston. Required facility upgrades are proposed to begin in late May 2005.

The project proponent, Mr. Jorn Mogensen, is an established Danish mink farmer with approximately 30 years of experience in the industry. Mr. Mogensen currently owns and operates a farm with 6,300 females in Denmark as well as operating his own feed and pelting operations. He currently produces "North American" style dark mink varieties and sells these mink through American Legend Auctions in Seattle. He is internationally recognized as a premium producer of dark mink.

(ii) ***Purpose/Rationale/Need for the Undertaking:***

The proponent, Mr. Jorn Mogensen, views Newfoundland as offering a significant opportunity for the development of a world-class mink industry. The province has the proper climate for mink production as well as offering potential advantages in land, feed and labour availability and cost, as compared to Denmark. In addition, the production of mink in North America will also enable Mr. Mogensen to sell these mink under premium North American labels, which he is currently unable to do with his mink production from Denmark.

Mr. Mogensen is looking to establish a feed kitchen and pelting operation, to support both his own mink farming operation and other operations in the province, through the provision of finished feeds or raw materials and pelting services.

DESCRIPTION OF THE UNDERTAKING:

- ***Geographical Location:***

The proposed site is located in Charleston, Bonavista Bay and consists of a former fish plant facility. Charleston Mink Company plans to use a portion of this large, approximately 70,000 sq. ft. facility for its operations. A location map and pictures of the facility are attached in Appendix 1.

- ***Physical Features:***

The feed kitchen and pelting plant operations will require a variety of equipment. Following is a listing of the primary equipment required.

Feed Kitchen Equipment

The equipment requirements for the feed kitchen operation are outlined in Table 1. Below is a brief description of these equipment requirements.

Feed Kitchen	Number
Grinder (16" Wolfking)	1
Grinder Repair/Motor	1
Mixer (10 tonne Wolfking)	1
Conveyors	2
Scales	1
Silo	1
Forklifts	2
Truck	1
Pressure Washer	1
Pallet Wrapper (semi-automatic)	1
Totes/Pans	20/600

Table 1: Feed Kitchen Equipment Requirements

- ***Grinder:*** A large industrial scale grinder, such as that shown in Figure 1, is required for the feed kitchen. The grinder will be used to process fresh and frozen raw materials to a size usable in the mixer. Mr. Mogensen plans to import a 16" Wolfking Grinder, one of the top names in this type of equipment. A new motor will be installed on the grinder in Newfoundland, to meet local electrical requirements;

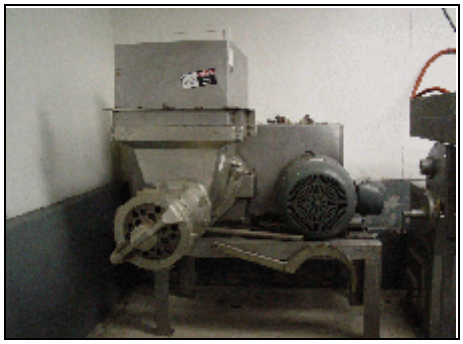


Figure 1: Industrial Grinder

- ***Mixer:*** An industrial scale mixer, such as shown in Figure 2, will also be required for the feed kitchen operation, to mix the necessary feed ingredients for finished feed production. Mr. Mogensen will also be importing a Wolfking industrial mixer, of ten tonne capacity, to meet the requirements of the feed kitchen;

Figure 2: Industrial Mixer

- ***Conveyors:*** Conveyors are required for the movement of materials in and out of the main production equipment, the grinder and mixer. See the picture of Mr. Mogensen's existing feed operation in Denmark in Figure 3 for an illustration of the typical setup requirements;

Figure 3: Feed Preparation Area

- ***Scales:*** In order to obtain an accurate assessment of the production volumes, a set of industrial scales will be place under the mixer, such that batch weights can be recorded;
- ***Silo:*** A silo or silos will be required for the storage of dry materials, i.e. grain mixtures;
- ***Forklifts:*** Forklifts will be required for the movement of materials to/from the freezer and cold storage areas and into/out of the facility;
- ***Truck(s):*** Truck(s) will be required for the collection and distribution of raw materials and finished feeds. The truck(s) will have to have at least a 5-tonne capacity and must have a reefer box;
- ***Pressure Washer:*** A pressure washer is required for the regular cleanup of the production equipment and production area, as well as the feed truck and totes/pans;
- ***Pallet-Wrapper:*** Once product comes out of the blast freezer it will be taken out of the pans and stacked on pallets, which will then be wrapped with a pallet wrapper; and
- ***Totes/Pans:*** Large fish tubs/totes will be used for raw material collection and finished feed distribution. Smaller berry pans (40-50 lb capacity) will be used for the freezing of ground raw materials in the blast freezer.

Pelting Plant Equipment

A listing of the pelting plant equipment requirements is provided in Table 2. Following is a description of these equipment requirements.

Pelting Equipment	Number
Killing Trolleys	2
Body Trolleys	3
Body Drum	1
Tail and Leg Removers	2
Paw and Leg Spreaders	2
Skinning Machines	2
Fleshing Machines	4
Drum System	1
Boards	9,500
Pinning Machines	2
Drying Boxes	8,000 tubes
QVEX 8000	1
QStock	1
Piping for QVEX	1
Staple and Board Removers	2
Racks (new)	20
Racks (used)	10
Hangers	1,000
Compressor	1
Vacuum Pump	1
Fat Barrels	4
Transport Wagons	5

Table 2: Pelting Plant Equipment Requirements

- ***Killing Trolleys:*** After the mink are graded at the farm, those selected for pelting are placed in the Killing Trolleys to be euthanised. A total of two Killing Trolleys will be purchased by Charleston Mink Company from The Hedensted Group. See Figure 4 for a picture of the type of Trolley to be purchased.

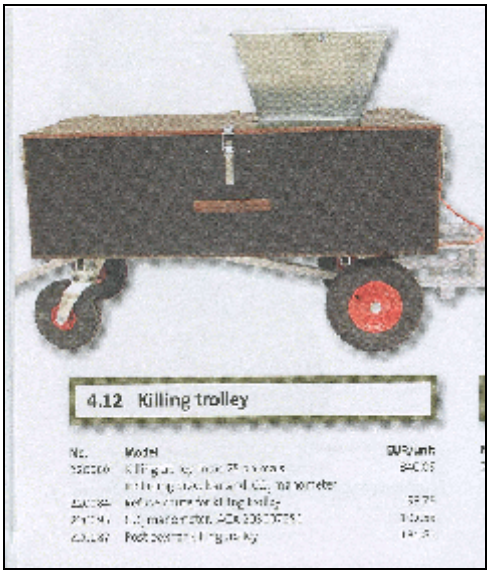


Figure 4: Killing Trolley

- ***Body Trolleys:*** Once removed from the Killing Trolleys the mink are placed on the Body Trolleys while waiting for the pelting process to begin. A total of three Body Trolleys will be purchased by Charleston Mink Company from The Hedensted Group. See Figure 5 for a picture of this equipment.

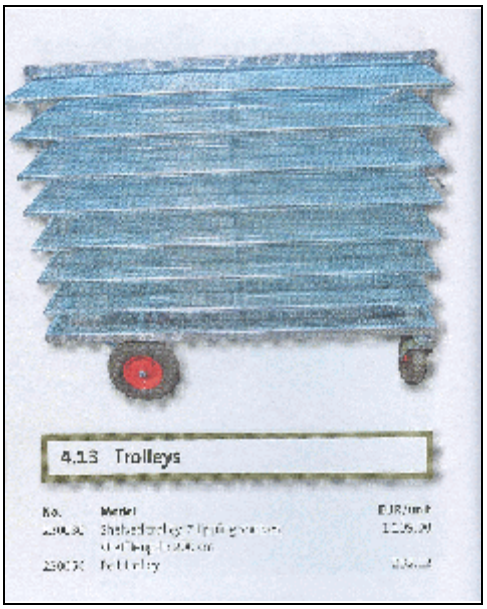


Figure 5: Body Trolley

- ***Body Drum:*** The Body Drum prepares the mink for the skinning process. The bodies are tumbled in the drum with sawdust to remove dirt/grease from the pelts. One Body Drum, see Figure 6, will be purchased from Pels.dk.

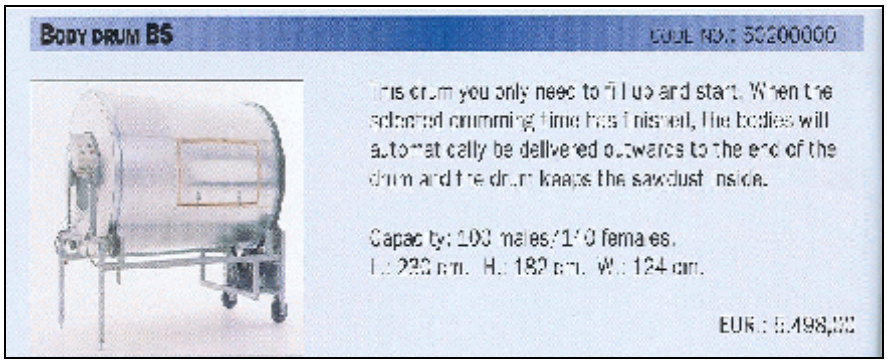


Figure 6: Body Drum

- ***Tail and Leg Removers:*** The Tail and Leg Removers are used to cut off the mink's tail and legs prior to skinning. Two of these pieces of equipment will be procured by Charleston Mink Company from The Hedensted Group. Figure 7 provides a picture of this equipment.

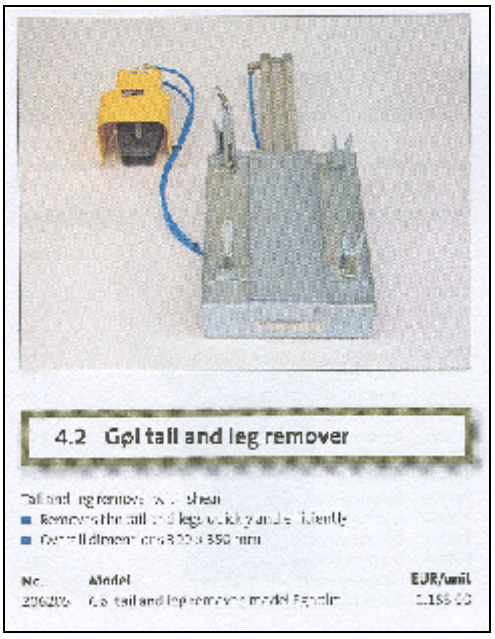


Figure 7: Tail and Leg Remover

- ***Paw and Leg Spreaders:*** The Paw and Leg Spreaders are used in the final step before skinning. They loosen the skin from the body to make the skinning process easier and less likely to damage the pelt. Two Paw and Leg Spreaders, see Figure 8, will be purchased from The Hedenstad Group.

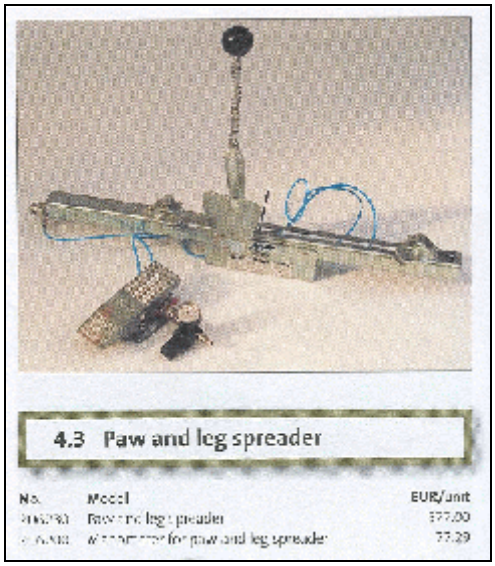


Figure 8: Paw and Leg Spreader

- ***Skinning Machines:*** Skinning Machines are used help in the process of separating the skin from the body. Charleston Mink Company will require two of these machines from The Hedenstad Group. Figure 9 illustrates this equipment.

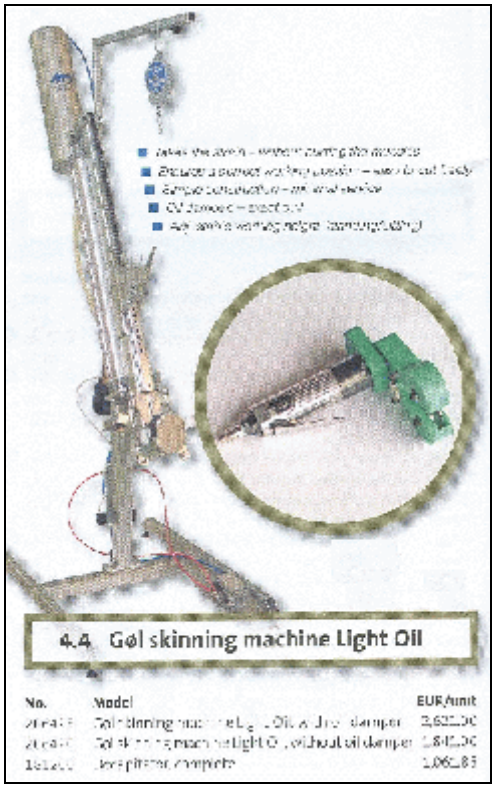
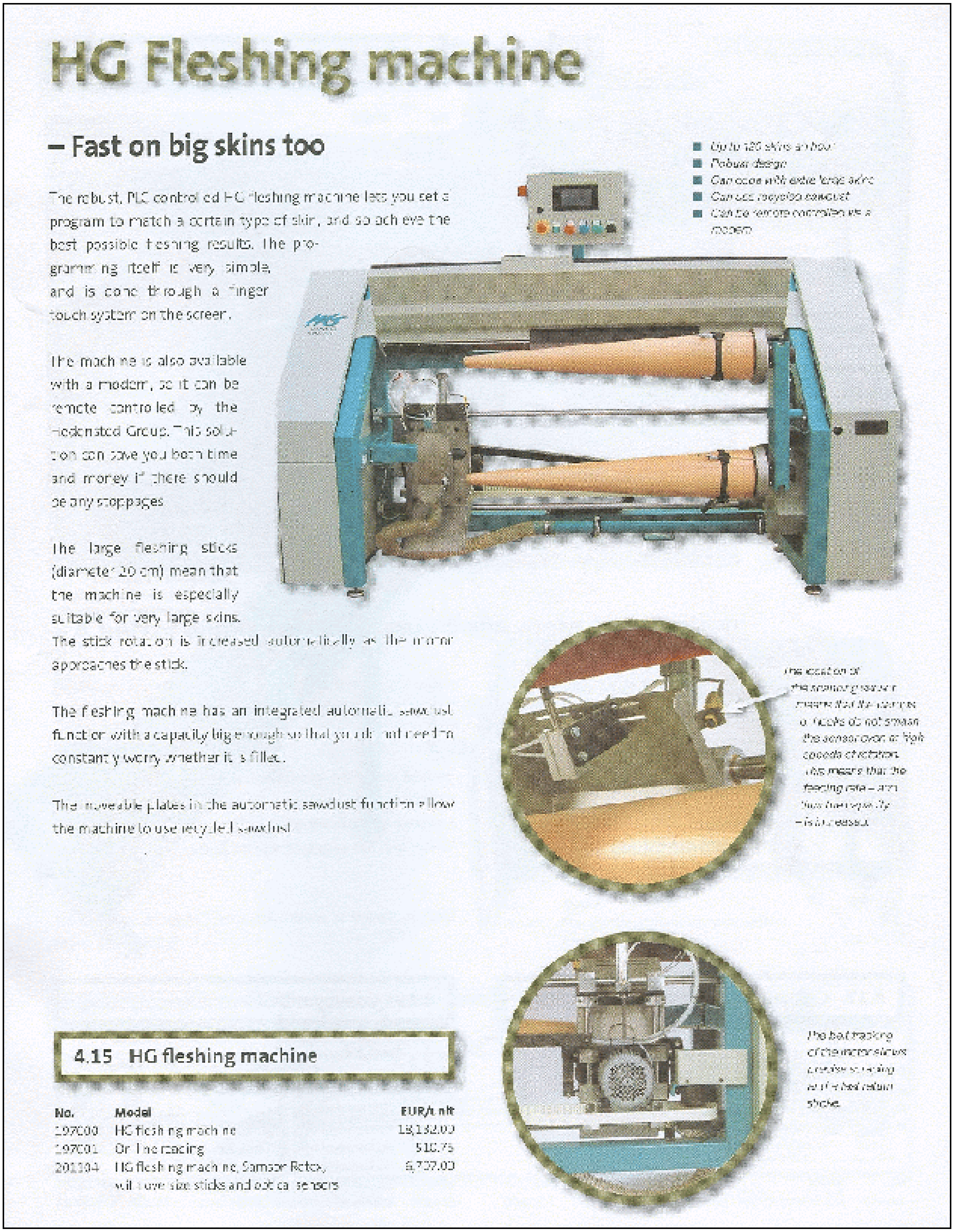


Figure 9: Skinning Machine

- ***Fleshing Machines:*** Once the pelt is separated from the body, the flesh and fat remaining on the pelt has to be scraped off using a fleshing machine, such as the one illustrated in Figure 10. Charleston Mink Company Ltd. will be using a total of four fleshing machines. The proponent plans to contribute two used machines and to buy two more used machines in Denmark.



HG Fleshing machine

– Fast on big skins too

The robust, PLC controlled HG fleshing machine lets you set a program to match a certain type of skin, and so achieve the best possible fleshing results. The programming itself is very simple, and is done through a finger touch system on the screen.

The machine is also available with a modem, so it can be remote controlled by the Hedensted Group. This solution can save you both time and money if there should be any stoppages.

The large fleshing sticks (diameter 20 cm) mean that the machine is especially suitable for very large skins. The stick rotation is increased automatically as the motor approaches the stick.

The fleshing machine has an integrated automatic sawdust function with a capacity big enough so that you do not need to constantly worry whether it is filled.

The moveable plates in the automatic sawdust function allow the machine to use recycled sawdust.

- Up to 120 skins an hour
- Robust design
- Can cope with extra large skins
- Can use recycled sawdust
- Can be remote controlled via a modem

The location of the scraping/pressure means that the controls ... do not smash the sensor even at high speeds of rotation. This means that the feeding rate – and thus the capacity – is increased.

The belt tracking of the motor allows precise scraping in the belt return stroke.

4.15 HG fleshing machine

No.	Model	EUR/unit
197000	HG fleshing machine	18,132.00
197001	On line racing	510.75
201304	HG fleshing machine, Samson Rotex, with oversize sticks and optical sensors	6,707.00

Figure 10: Fleshing Machine

- ***Drum System:*** After fleshing the pelts need to be placed in drums containing sawdust to remove any remaining grease. Charleston Mink Company Ltd. plans to purchase an automated system, as illustrated in Figure 11, which will move the pelts from the fleshing machine, through the drumming process to where the pinning machines are set up. This system is to be provided by The Hedensted Group.

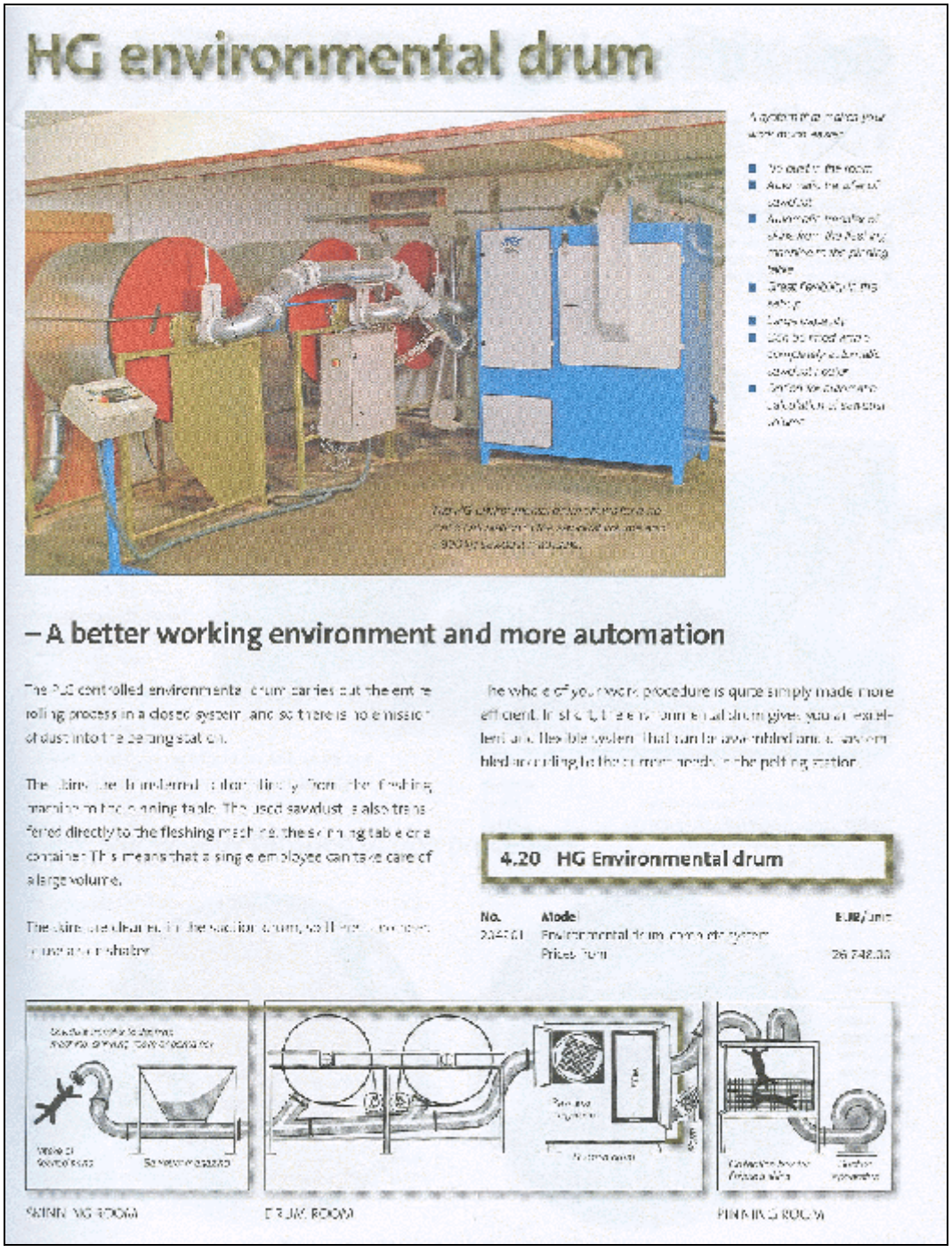


Figure 11: Drum System

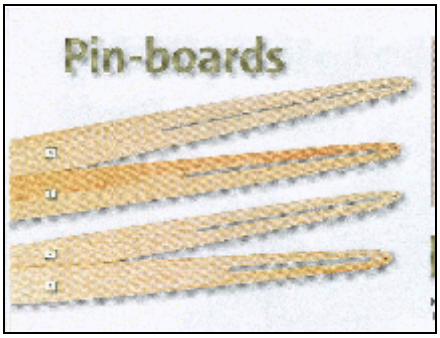


Figure 12: Pin-Boards

- ***Boards and Pinning Machines:*** After final drumming the pelts are stretched onto Pin Boards in preparation for the drying process. A Pinning Machine is used to help stretch the pelt and staple it to the Board. An illustration of the type of Boards and Pinning Machines to be used is provided in Figures 12 and 13. The proponent will be contributing 9,500 new Boards and two used Pinning Machines to the operation.

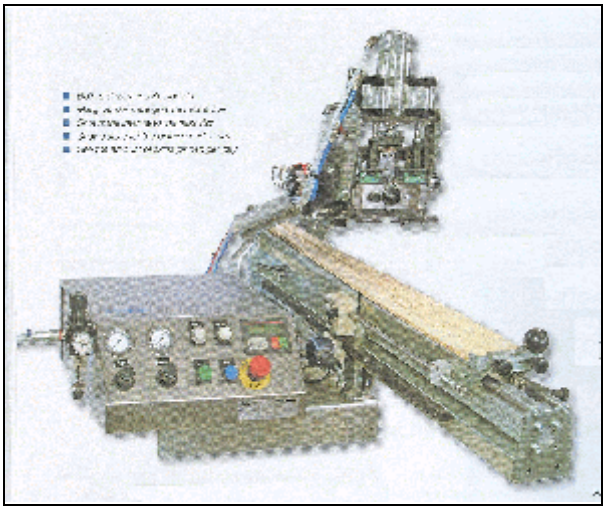


Figure 13: Pinning Machine

- ***Drying System - QVEX 8000, Piping, Drying Boxes:*** After placing the pelts onto Boards, they are brought to the drying room. This room will be environmentally controlled using a QVEX Model 8000, which monitors and controls the temperature, humidity and air quality. The Boards are hung from Drying Boxes, which contain a series of tubes through which air from the QVEX system is blown. Over a three to four day period this system will properly dry the skins. The QVEX 8000 system will be purchased from Pels.dk. The proponent will be contributing over 30 drying boxes containing approximately 8,000 tubes. Figure 14 illustrates the QVEX system and the Drying Boxes.

Figure 14: Drying System

- ***Staple and Board Removers:*** Once the pelts are properly dried they must be removed from the Boards and then sent to the stock room for storage prior to shipping. A total of two Skin Removers will be used. This equipment will be contributed by the proponent and will consist of the same type of equipment illustrated in Figure 15.

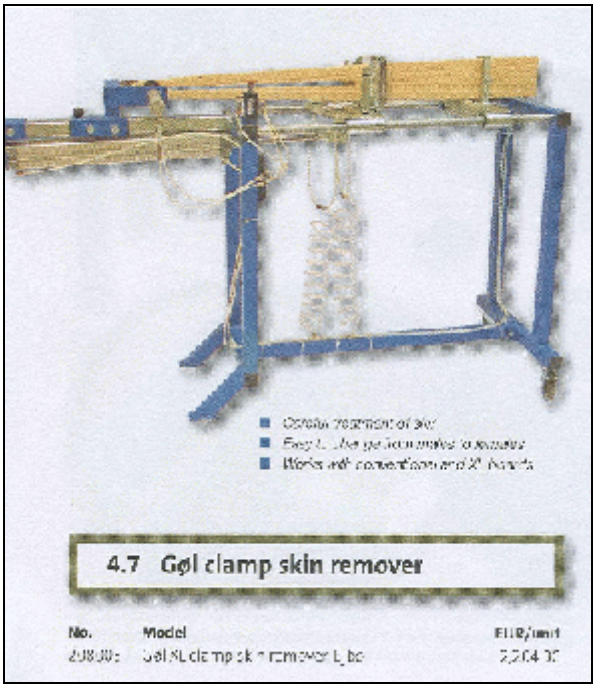


Figure 15: Skin Remover

- ***Storage Room - QStock, Racks, Hangers:*** The dried, completed pelts have to be properly stored until packaged for shipment to the auction house. A stock room will be established where the pelts will be properly hung on hangers and racks. The temperature and humidity of the room will be controlled with a QStock from Pels.dk, as shown in Figure 16. A total of 20 new racks will be purchased and ten racks will be contributed by the proponent. One thousand hangers will be purchased.

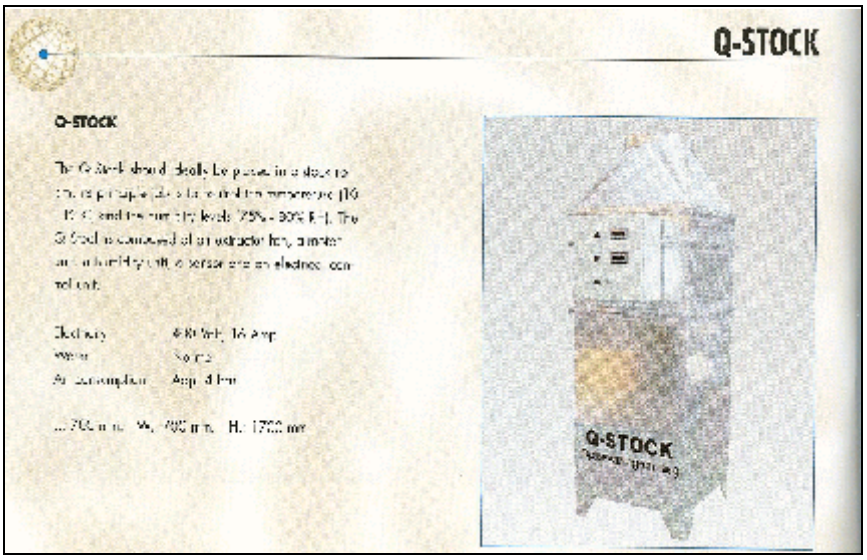


Figure 16: QStock

- ***Miscellaneous Equipment - Compressor, Vacuum Pump, Fat Barrels, Transport Wagons:*** In addition to the major equipment outlined above, the pelting plant will also require the following equipment
  - A Compressor to operate the air operated machinery;
  - A Vacuum Pump for the collection of fat/grease;
  - Fat Barrels, where the fat/grease will be collected and stored; and
  - Transport Wagons for the movement of pelts within the building.

  The proponent will be contributing the Vacuum Pump, four Fat Barrels and five Transport Wagons to the project.

- ***Construction:***

Project construction is projected to occur from May 2005 through to August 2005. Following are the projected construction requirements:

- *May 2005*
  Install Temporary Power
  Final Evaluation of Refrigeration/Electrical/Mechanical Requirements
- *By June 2005*
  Install Power to Feed Kitchen Area
  Upgrade Refrigeration and Mechanical Systems
  Install Feed Kitchen Equipment
- *By August 2005*
  Install Power to Pelting Plant Area
  Install Pelting Plant Equipment
  Complete Carpentry Workshop

- ***Operation:***

Feed Kitchen

The process involved in feed kitchen operations will depend on whether the facility will be producing a finished feed, ready to take to the farm for feeding, or more simply just the raw materials, which can then be combined by the farmer into a finished feed. Charleston Mink Company Ltd. plans to produce both a finished feed, for the proponent's farm in Harcourt and any other local farms which may develop, plus raw materials which may be sold and shipped to feed kitchens and farms in other areas of the province.

As a provider of frozen, ground raw material for farm operations the process involved is very simple, consisting of: sourcing the fresh or frozen raw materials, grinding these materials and placing the ground product in pans for freezing, freezing the ground material in a blast or plate freezer, removing the frozen blocks from the pans, palletizing and shrink wrapping the frozen blocks, storing the pallets in a cold storage room until needed, and finally shipping the product to the farm for use in a finished feed. Proper procedures need to be followed in raw material handling (proper icing, use of reefer trucks, etc.) to ensure that product is maintained at the proper temperatures to minimize potential bacterial

buildup. For raw materials where the risks of bacterial contamination are higher, eg. spent hens, regular laboratory tests must be conducted to ensure product quality. At the end of each production run proper cleanup will also be required, using high pressure steam cleaning, to prevent bacterial buildup on the machinery.

The production of a finished feed builds upon the process identified above. A finished feed uses a combination of raw materials to produce a nutritionally balanced diet. Diet composition will vary throughout the year, to meet the varying needs of the fur animal during the production cycle. As such, perhaps the most critical component to finished feed production will be to have the person or persons available with the nutritional background and/or experience in fur feed production. Mr. Mogensen has extensive experience in mink feed production and has expended considerable time and effort in the development of proper diets for the production of premium "North American" style mink. This has included extensive consultation with some of the top producers of mink in North America.

Finished feed production would consist of securing the proper combination of raw materials, grinding those materials that require grinding, placing all the ingredients in a mixer and possibly a homogeniser to produce a finished feed, which can then be placed in insulated tubs and onto a reefer truck or directly into a specially designed pumping truck for transport to the farm. Regular nutritional and quality testing are required to ensure the fur animals are receiving the nutrition and quality of feed they require. Mr. Mogensen plans to have regular analyses completed on both the raw material and finished diets produced through his facility.

The feed kitchen will have a production capacity well in excess of 10 million pounds per annum. Projected production for the first three to five years is expected to peak at around 6-7 million pounds of finished feed and raw materials.

Pelting Plant

The following is a brief description of the pelting process. Greater detail on this process and the equipment used has been provided above.

After the grading process on the farm, where the best and the biggest are retained as breeders, the remaining mink are sent for pelting in November/December of each year. The mink are euthanised humanely in a Killing Trolley and then placed on a Body Trolley in preparation for the pelting process. The process starts by placing the mink in a Body Drum, with sawdust, to clean them and prepare them for skinning. The skinning process begins with the removal of the tail and legs and with the loosening of the skin using a Paw and Leg Spreader. A Skinning Machine will then be used to assist in separating the pelt from the body.

After skinning the fat and grease must be removed from the pelts, using a Fleshing Machine. After this is removed the pelts are placed in another drum with sawdust to remove all remaining grease. The pelts are then ready to be place on Pin-Boards using a

Pinning Machine which helps to stretch the pelts to optimal size and then staple them to the Board. Once on the Board the pelts are ready to enter the drying process.

The critical drying process involves hanging the pelts in an environmentally controlled room, at 17-18 degrees Celsius and 55-58% moisture, for three to four days, where each pelt is hung on a tube which blows air down through the pelt to dry it in a controlled manner. After drying the pelts are taken off the Boards with a Staple and Board Remover. The pelts are then complete and are transported to the stockroom where they are placed on hangers to maintain there shape and structure and maintained at a temperature of 10 degrees Celsius and at 75% humidity until the time of shipping to the auction house.

Prior to shipping most farmers must tag their mink with barcodes using a Labelling Machine, to distinguish them at the auction house. The pelts are then packed in boxes and picked up by the auction company.

Production at the pelting operation will include the production of pelts from locally produced mink and pelts from imported pre-skinned (no carcasses) mink. Peak production in the first three to five years will be approximately 150,000 pelts.

Waste Production/Handling

Waste production from the feed kitchen operation will be minimal, as all materials collected will be used in the feed production. The waste stream from the pelting operation will include the mink carcasses, the fat/grease collected in the pelting process and the sawdust used during the pelting process. The projected peak waste production, when the farm reached 10,000 female breeders, is projected as follows:

- Carcass/fat 80 tonnes
- Sawdust 10 tonnes (used in pelting process to dry skins)

Waste Collection

Carcasses are collected during the skinning process. The fat/grease is automatically collected from the fleshing machines into barrels and the sawdust used in the drumming process is changed on a regular basis.

Waste Handling and Disposal

The handling and disposal of the waste from the feed kitchen and pelting operation will use approved management strategies. The primary handing and disposal methodologies to be used will include burial and potentially composting. Carcasses and fat will be returned to the farm site (Harcourt Fur Farm Inc.) for approved disposal. For the burial of carcasses, the "Government Service Centre Guide for the Disposal of Dead Animals Within the Province of Newfoundland and Labrador" will be followed, i.e. disposal areas will be a minimum of 150 metres from the well water supply. The carcasses will be placed in a prepared excavation, then limed and backfilled with at least 0.6 metres of fill material. The excavation site will be at least 0.3 metres from the groundwater table.

- ***Occupations:***

  The proposed feed kitchen operation will require a full-time workforce of between two to four employees. Pelting operations will provide full-time seasonal employment for 15-20 individuals.

- ***Project-Related Documents:***

  N/A

APPROVAL OF THE UNDERTAKING:

Approvals required for the construction and operations phases for Charleston Mink CompanyLtd./Harcourt Fur Farm Inc. include the following:

- Waste Management Certificate - Government Services Centre

SCHEDULE:

The initial construction phase for this project must be started by late May 2005. The Feed Kitchen operations are required by June/July 2005, while plans are to have the Pelting Operations in place by August/September 2005, to provide adequate time for employee training in advance of the November/December pelting season.

FUNDING:

Funding for this operation will consist primarily of private investment. Charleston Mink Company Ltd. is applying for assistance through the Atlantic Canada Opportunities Agency, the Agricultural Policy Framework (APF), and the Department of Innovation, Trade and Rural Development. No approvals have been granted to date.

Mr. Jorn Mogensen
President/Owner

Date