FOYLE MEATS
MELTON RD
SIX HILLS
MELTON MOWBRAY
LE14 3PR

Environmental Permit Application

Site Operations: Manufacturing & Infrastructure

Document Ref: Attachment B.3.13.2

Site Overview

Foyle Food Group operates a slaughtering facility on a 24,000 M^2 site located at Six Hills, Melton Mowbray, LE14 3PD, United Kingdom. Activities at the site include the slaughter of cattle and the dressing, chilling and quartering of beef carcasses, the harvesting of offal, cod fat and the packing of beef offal and cod fat into vacuum pouches and lined cardboard boxes.

The northern and eastern site boundaries are bounded by green-field, which contains an operational farmstead. The northeast of the site is bounded by a green-field, beyond which is the Six Hills Leisure facility and golf course. At its closest point, this golf course comes within *c.*125m of the site boundary.

The west boundary is bounded by two industrial units and associated carpark, beyond which is the A46 road. The south of the site is mostly bounded by a local access roadway into the adjacent industrial units and partially bounded by the B676 road.

The closest residential properties to the site are located on the A46 Road, *c.*220m south-west of the site boundary.

Prior to being acquired by the Foyle Food Group, the site was a privately owned beef slaughtering facility.

The company's customer base is split between commercial and retail. The site produces primal frozen quarters which are dispatched to other Foyle Foods site for further processing. Boning is not carried out at the site.

The site employs approximately 77 staff, including office and admin personnel.

The actual tonnage of finished product produced in 2023 was 14,809.90 tonnes, which is an average of 284.81 tonnes per week.

The plant operates production shifts on a five-day basis between 07:00-15:00, while cleaning occurs during evening & night-time hours. Weekend work may occur at peak production times and the engineering team provide 24/7 cover.

No effluent treatment occurs at the site. Effluent in stored in the Effluent Storage Sump and the Truck-Wash Sump, which are emptied daily by road tanker.

All water is sourced from a main supply, while the site contains a single hot water boiler.

All waste is segregated on-site for removal to offsite waste facilities as appropriate.

Appendix A: details the factory process flow from cattle inwards to final product despatch.
Appendix B: detailed the HACCP flow diagrams for individual areas, including the Lairage/Intake, Cattle Slaughter, Loading Bay, Red Offal and Green Offal.
Appendix C: is an illustration of the main site infrastructure.
Appendix D: contains a photo log of site infrastructure.

1.0 MANUFACTURING

All production is carried out internally. This consists of the following processing techniques and unit operations as listed in the Best Available Techniques in the Food, Drink and Milk Industries (August 2006 & January 2017):

- Materials handling and storage (A.1),
- Washing (A.4),
- Cutting, slicing, chopping, mincing, pulping and pressing (B.1),
- Cooling, chilling and cold stabilisation (G.1),
- Packing and filling (H.1),
- Cleaning and disinfection (U.1),
- Energy generation and consumption (U.2),
- Water use (U.3),
- Vacuum generation (U.4),
- Refrigeration (U.5),
- Compressed air generation (U.6).

A process flow diagram showing production flow is detailed in Appendix A.

The manufacturing process is split into the following:

1.1 Intake/Lairage

Cattle scheduled for slaughter are delivered to the site by road. On arrival, the passport and FCI documentation for the animals is checked; only those animals having the necessary documentation are accepted. Documents may also include the animals' organic certification and T.B. restriction licence. The animals are then placed in livestock holding pens in the lairage. After unloading, the cattle delivery vehicles are taken to the lorry wash area for wash down before leaving the site.

The lairage includes a slatted tank for the collection of slurry, and the area is washed down daily to prevent the build-up of organic material on concrete surfaces. The site procurement procedure ensures that the number of breaks in slaughtering processing would be minimised, by ensuring that there is a constant supply of animals to the slaughter line.

1.2 Slaughter Lines

Cattle are stunned in a purpose designed stun box using a captive bolt gun. The animals are then hung by their back legs on an overhead rail system. The cattle then have the main arteries in their throats cut by trained slaughter operatives and under-go a 30-second uninterrupted bleed. The slaughter line normally only operates on weekdays (i.e. Monday to Friday), however, slaughtering may be undertaken at weekends for reasons such as casualty animals and demand.

Blood

Blood from slaughtered animals is collected by means of a dedicated collection system. The blood trough is designed to facilitate 'squeegeeing' of partially congealed blood into the blood collection system. There is no additional bleed points on the slaughter line.

Blood is then transferred from the blood trough to the blood storage tank, where it is held until it is removed off site by tanker. Citric acid is added to the blood removal system and blood is chilled to aid coagulation of the blood so that it can be used for plasma removal.

Horn and Hoof Removal

Horns and hooves are manually removed from cattle carcass using hydraulically operated cropping shears and are sent to Specified Risk Material (SRM) skips for staining with blue dye.

Hide Removal

After bleeding, cattle have the mask (eyebrows and muzzle) and ears manually removed. After removal, the mask, which is classed as SRM, is stored in dedicated storage areas and stained with blue dye before disposal.

Hides are removed from cattle by means of an automated hide puller system and stored pending removal off-site for further processing or as CAT3 waste.

Head Removal

The head is manually removed from cattle carcass using hydraulically operated cropping shears and is placed on the offal line.

Trimming and Evisceration
Green offal (lungs, trachea and paunches) are collected and taken for further processing at off-site facilities.

The spleen, intestines and pancreas are classed as SRM and are stained with blue dye and sent to the relevant storage trailer.

Gut (paunch) contents is also removed at this stage and stored for collection by a contractor for land-spreading.

The respiratory, pulmonary and digestive organs are then removed and the resulting offal is sent for disposal or further processing as required.

Red offal (heart, liver and kidneys) are removed and sent to the Offal processing area.

Carcass Quartering

After the removal of offal, the cattle carcasses are split along the spine using purpose designed electric saws.

The spinal cords are then removed from the carcass using a vacuum suction system. The spinal cords are classed as SRM and are stained with blue dye and sent to the correct SRM trailer. Each side is cut, resulting in beef quarters.

Following quartering and the trimming of fat, tail, skirt and testicles, the beef is sent to the chillers.

1.3 Chilling

The beef quarters are placed in chilled storage. Meat is kept in chilled storage, at between <40℃ & <15℃ before dispatch.

1.4 Offal Processing

Further to being initially chilled, red offal is trimmed, vac-packed, labelled and weighed and sent to the chill for storage.

Contaminated offal is disposed of as either CAT1 or CAT3 waste, including the skull and tonsils.

Green offal is empties, washed and inspected for Rumen Fluke, before being chilled and packed for further processing off-site.

This process can produce some waste packaging such as broken boxes, backs of labels, transit packaging for the packaging materials etc. and as these volumes are so small that they are treated as general waste.

1.5 Dispatch

The fully chilled quarters are loaded onto refrigerated trailers in the loading bay. When the trailers are full, they are taken by contract haulier directly to sister sites for further processing (i.e. boning).

1.6 Cleaning

Procedures ensure that residual material is removed from floors, water is used efficiently, and employees are trained in the handling and making up of working solutions and their applications.

All cleaning chemicals are kept within a secure Chemical Store.

2.0 INFRASTRUCTURE

2.1 Buildings

The site contains two primary individual structures.

The first is the Maintenance Workshop located in the rear yard area, which has a footprint of 80m^2. This structure was extended to include a Packing Store, which has an additional footprint of 65m^2. The primary construction material of this structures is corrugated steel sheeting affix to I-beam framework (see Figure 1)

The second is the main production building covers an approximate area of 2,360m^2 and contains a number of processing and storage area, including: admin & reception, canteen & welfare facilities, a Lairage, five chillers, loading bay & dispatch, slaughter line, processing area, red & green offal processing area.

The admin and reception are housed within a two-storey section, constructed of internal block work with external red-brick walls, double glazed uPVC windows and a corrugated steel sheeting roof, located to the front of the structure, which has a footprint of 75m^2 (see Figure 2).

The canteen & welfare facilities are housed within a singular single-storey section, contains a tiled roof, located to the front of the structure, which has a footprint of 185m^2 (see Figure 3).

The Lairage, which was added after the completion of the main structure, consists of I-bean framework, a corrugated sheeting roof and walls constructed of a combination of reinforced concrete and vertical wooden lats, and has a footprint of 495m^2 (see Figure 4).

The smallest section of the main production building is the Boiler House, which is also of a, internal block work with external red-brick wall and corrugated steel sheeting roof construction. The structure features a large galvanised steel roller-door and has a footprint of 37.5m^2 (see Figure 5).

The remaining 1,567.5m^2 makes up the main processing area of the facility listed above and is primarily of a I-bean framework and corrugated steel sheeting roof and walls, with lower wall sections of varying heights constructed of red-brick (see Figure 6).

On site structures makes up approximately 10.6% of the site.

2.2 External Yard

The external area of the site can be divided into the following four areas:

i. Clean Yard Area – 2,676m^2

   The clean yard area is comprised of an area of paving brick to the front of the site and an area of poured concrete to the west and rear of the main processing building, which includes the site dispatch bays (see Figures 7-8).

   The Clean Yard Area makes up approximately 11.3% of the site.

ii. Dirty Yard Area – 3,120m^2

The dirty yard area, constructed of poured concrete, extends from the site entrance to the rear of the site encircling the Lairage, and contains the truck-wash, chemical store, air-compressor hut, blood tanks, animal by-product handling area, CAT waste storage trailers, Dolav storage and effluent storage sump (see Figures 9-14).

Effluent removal tankers, blood removal tankers and all cattle delivery trucks are instructed to stay within this area.

The eluent sump is located in an area of low elevation. Any overflow would be contained upon a concrete surface.

The Dirty Yard Area makes up approximately 13.2% of the site.

iii. Pours Hardstand – 6,777m^2

This area is comprised of roll and compacted hardcore stone material. Within this area is the employee carpark, trailer storage, the waste compost, recycling storage and the Maintenance Workshop and Packing Store structures (see Figures 15-18).

Pours Hardstand makes up approximately 28.7% of the site and is the largest area of made-ground within the site boundary.

iv. Green Areas – 8,562m^2

Within the site boundary there are two large green areas: on at the south-western site boundary with an area of 4,489m^2 and the second along the eastern site boundary with an area of 4,073m^2.

Grean Areas make up approximately 36.2% of the site.

2.4 Drainage

All internal production and wash water is directed to the effluent sump located in the rear yard, which is emptied daily. Dirty yard surfacewater is directed to the effluent sump or the truck-wash sump via a network of underground pipes.

All rainwater from the main structures and clean yard surface-water discharges to the Kingston Brook stream via SW-1 discharge point via a network of underground pipes.

Surfacewater within the green areas and the pours hardstand would go directly to ground.

Foul water from on-site toilets and welfare facility is directed to a separate tank at the front the site, which is isolated from the two underground drainage networks.

For more detail see: Attachment B.3.3 – Emissions to Surfacewater

2.5 Chemical Store

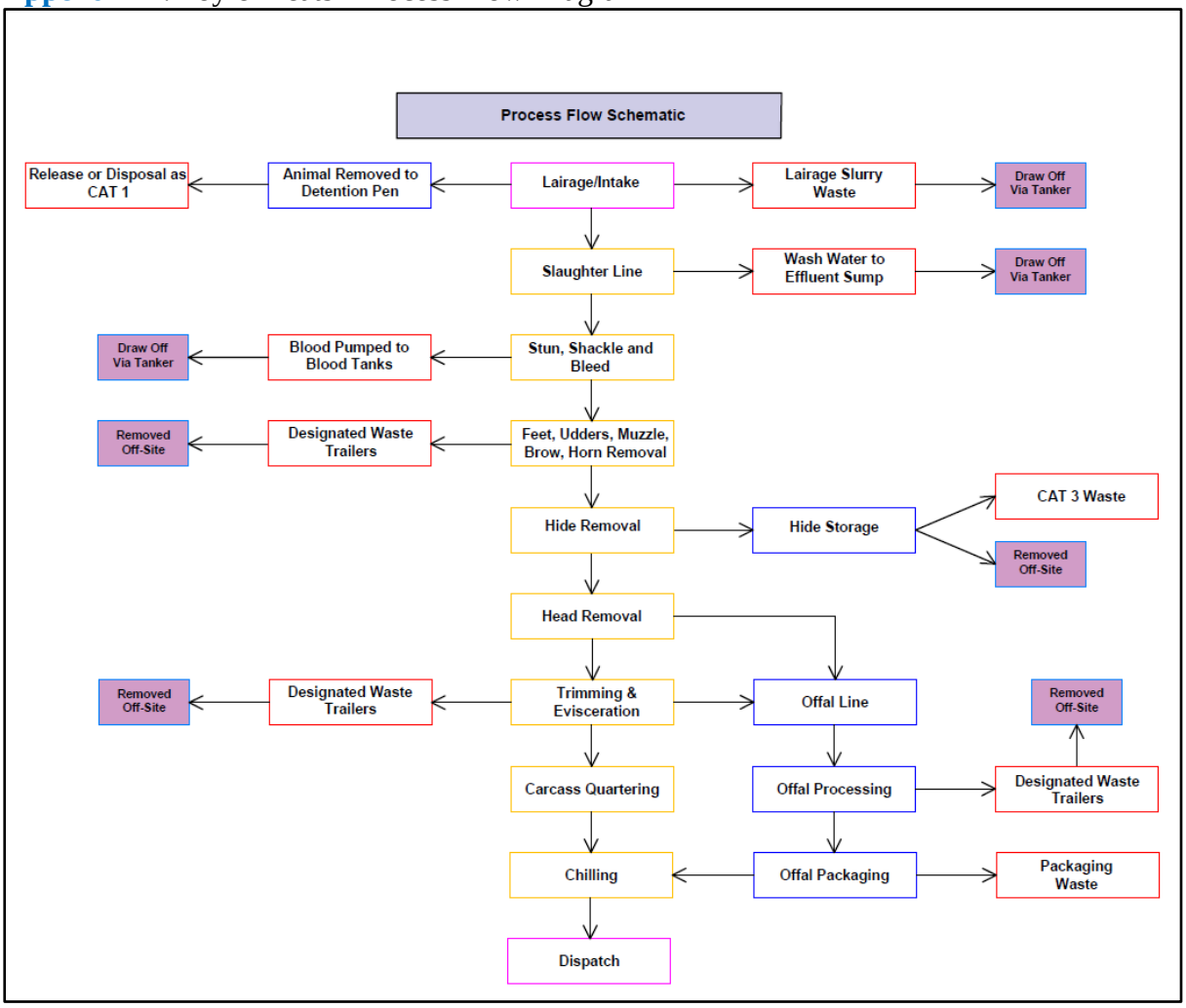
Chemicals are stored in multiples locations on the site. These include chemicals used for cleaning production equipment, general factory cleaning purposes, engineering and water treatment.
All cleaning chemicals are kept in secure store within the rear dirty yard area, upon suitable bunded structures, with limited access and all chemicals are kept closed when not in use.

Product information, Health & Safety Data and SDS data Sheets are available for all chemical products held on site.

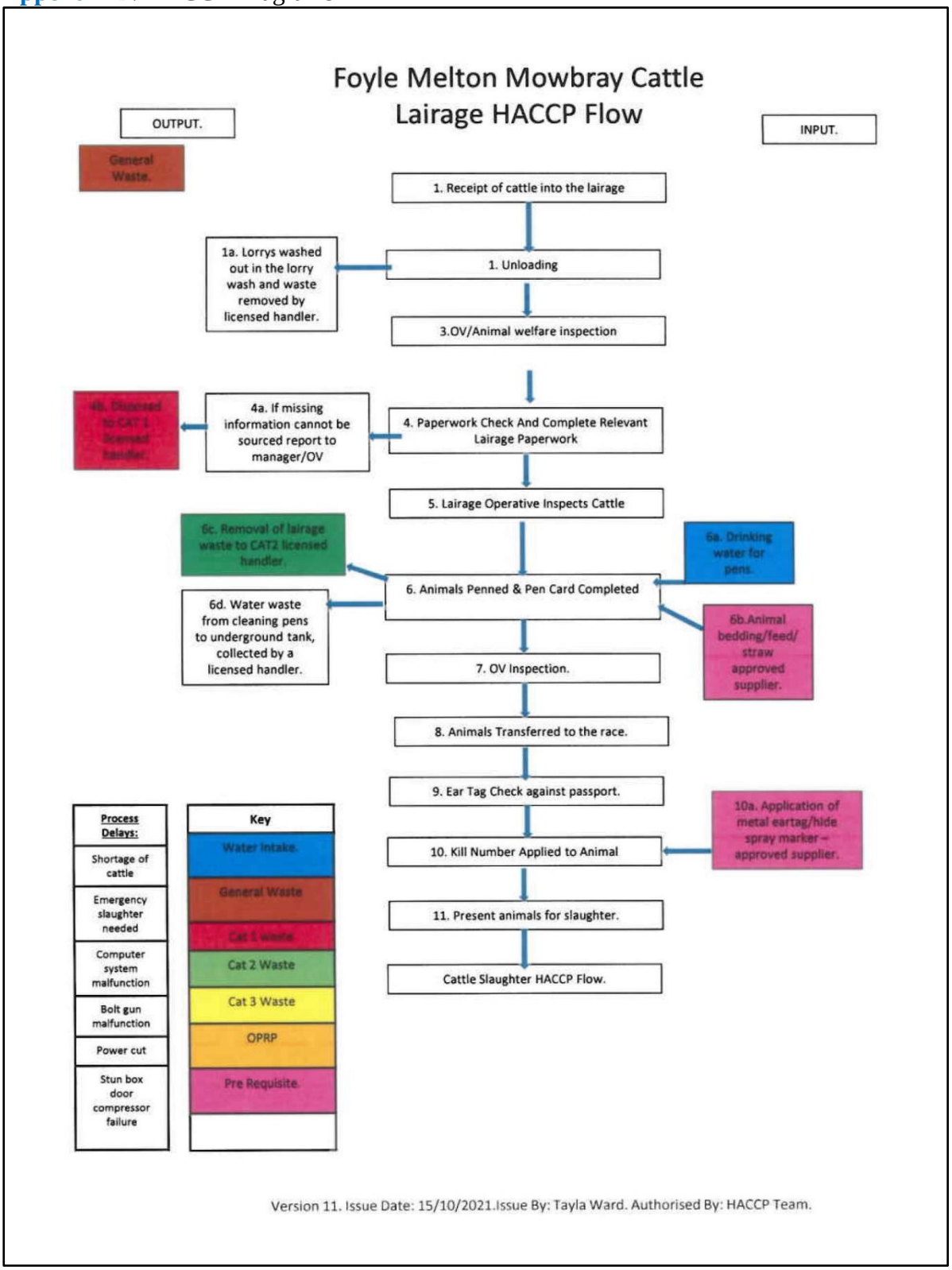
No bulk effluent treatment chemicals are stored on-site.

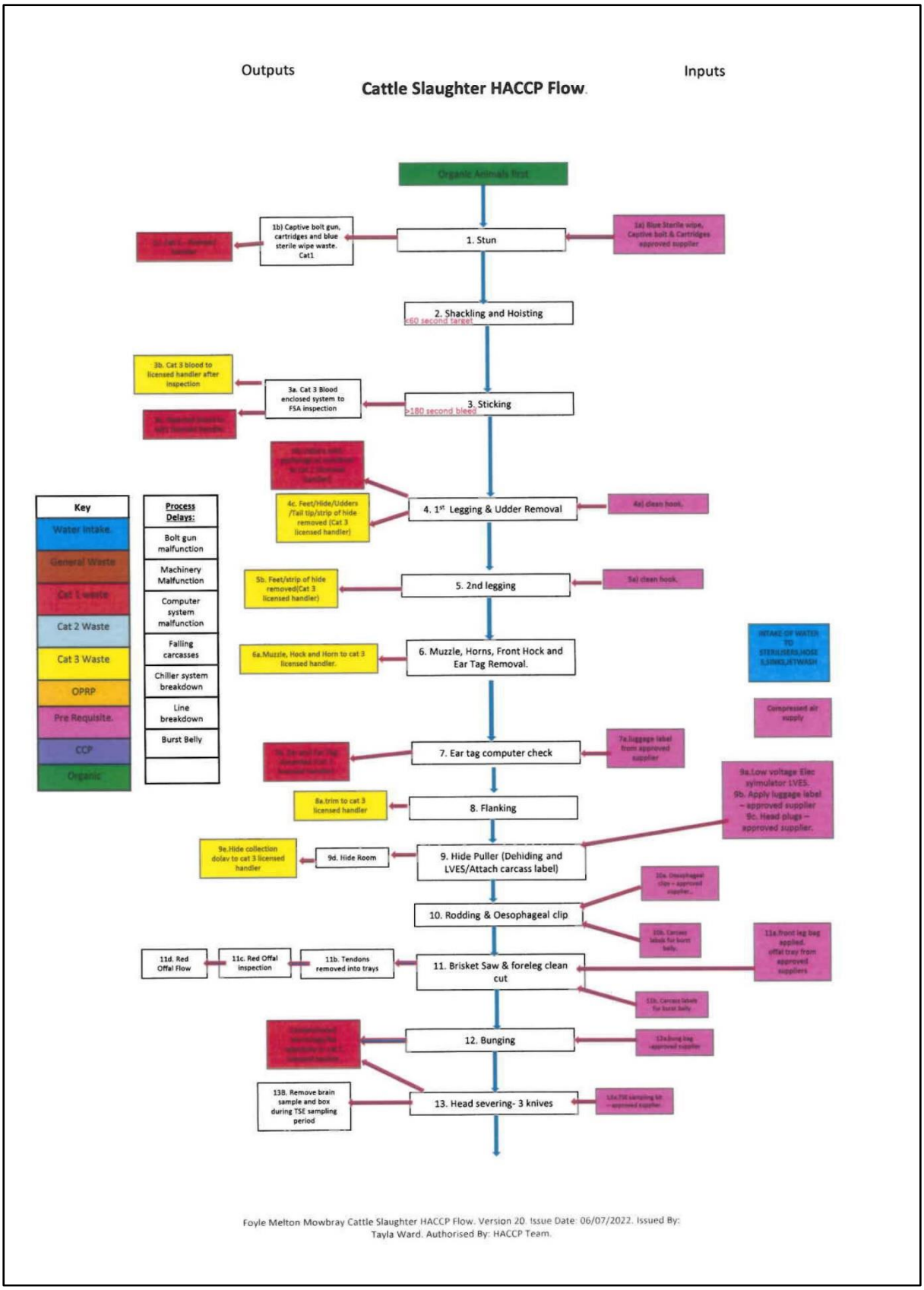
For more detail see:
Attachment C.3 – Bund Integrity Assessment.
Attachment C.2.3.C – Baseline Report.

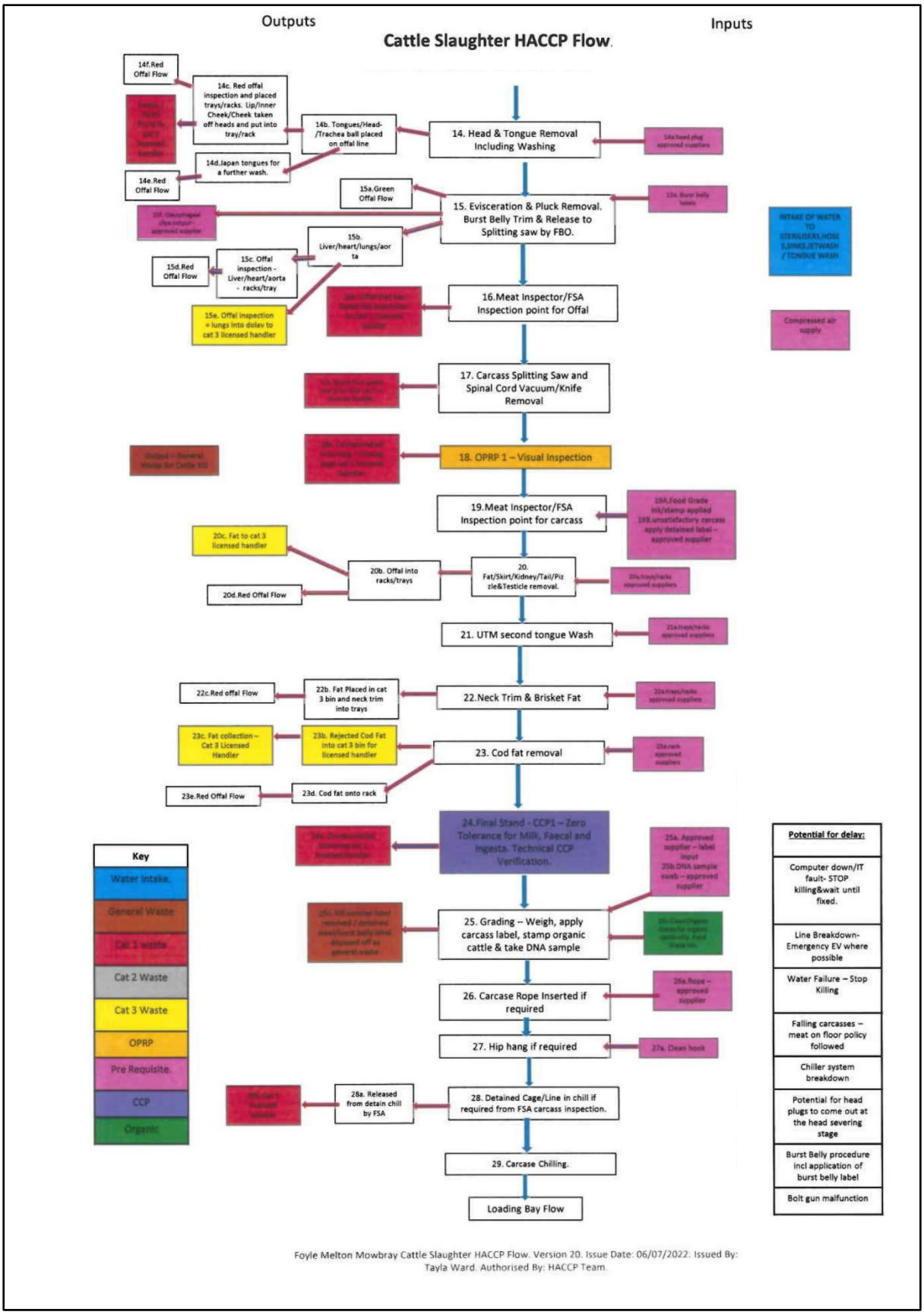
Appendix A: Foyle Meats –Process Flow Diagram

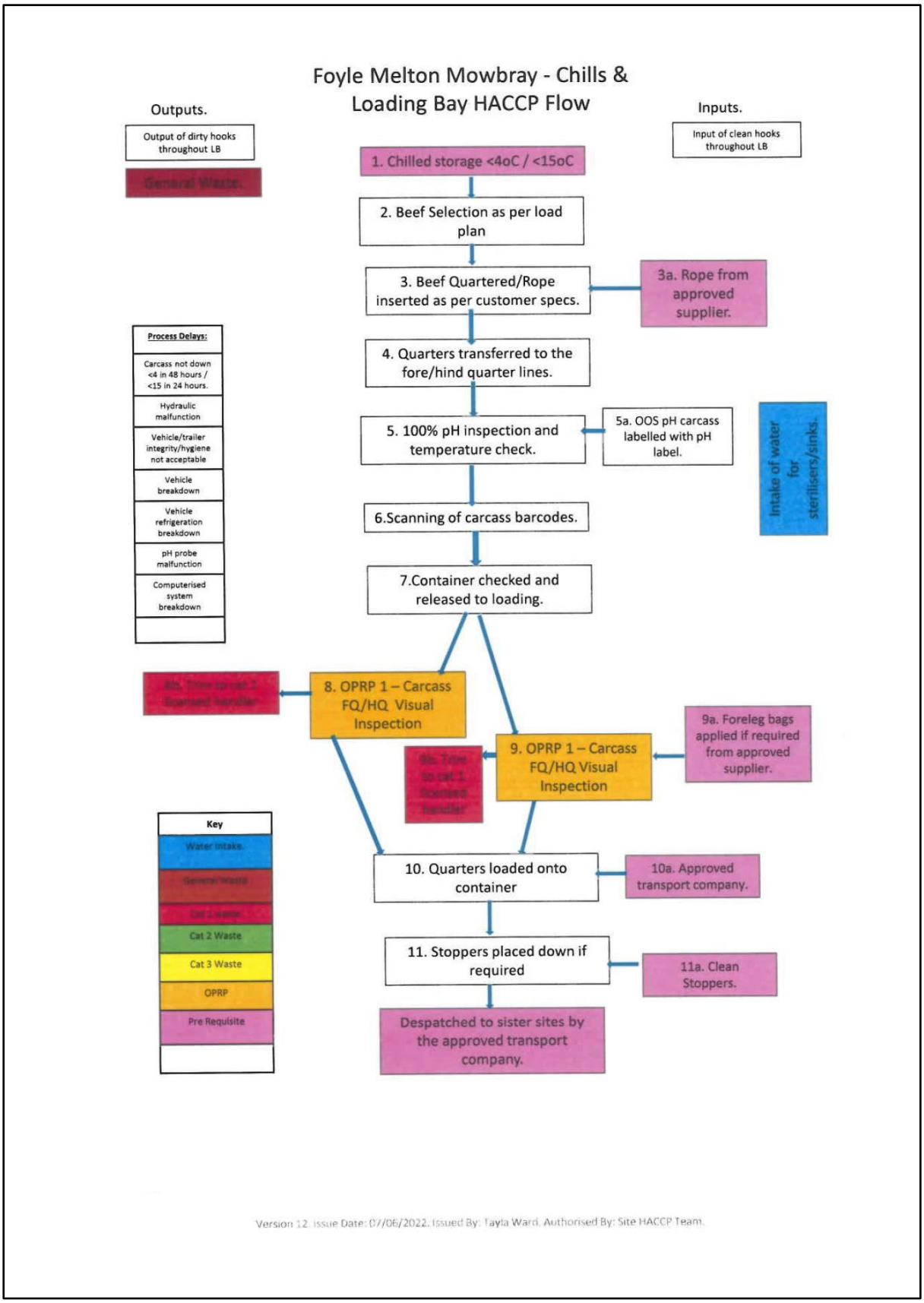


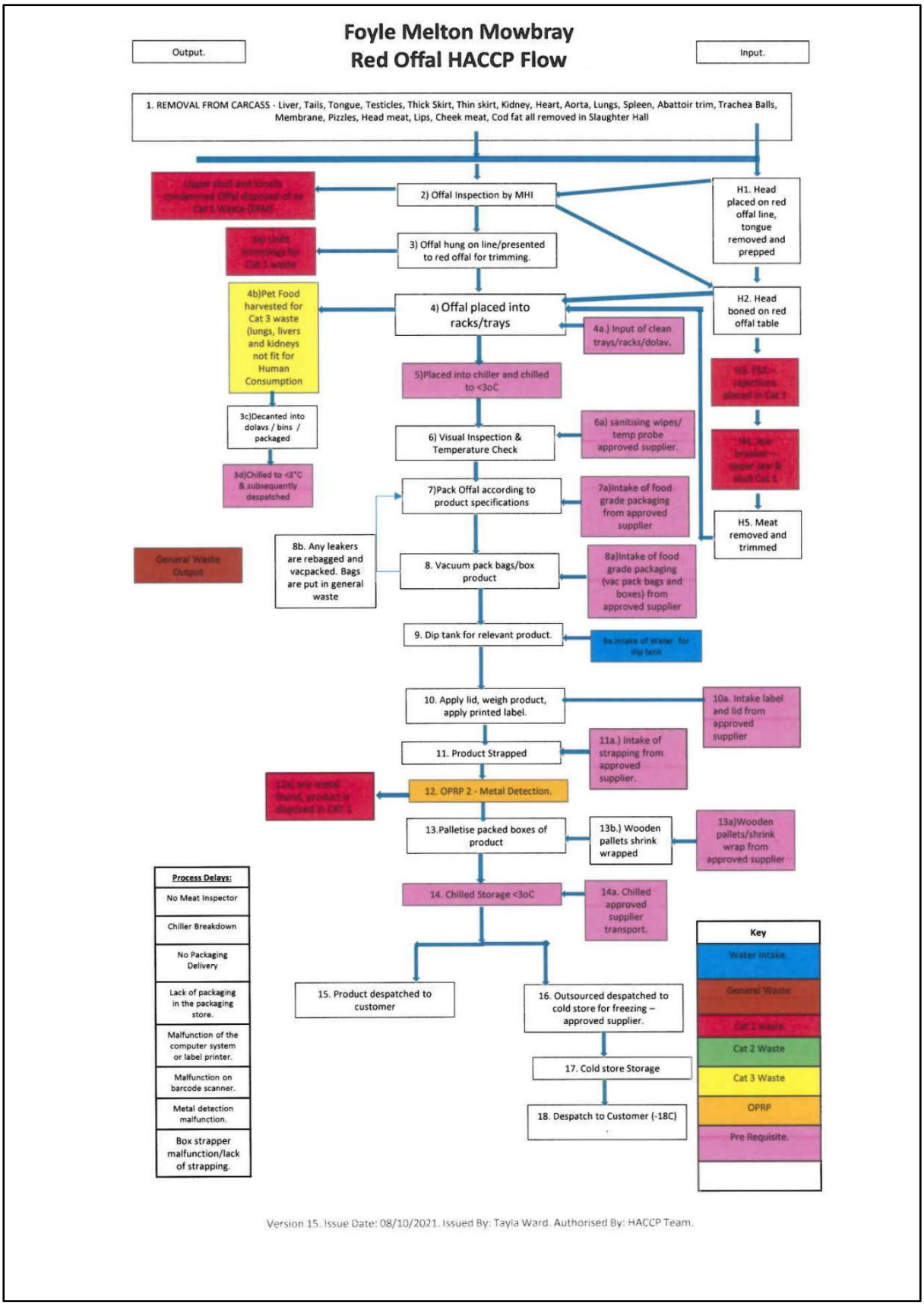
Appendix B: HACCP Diagrams

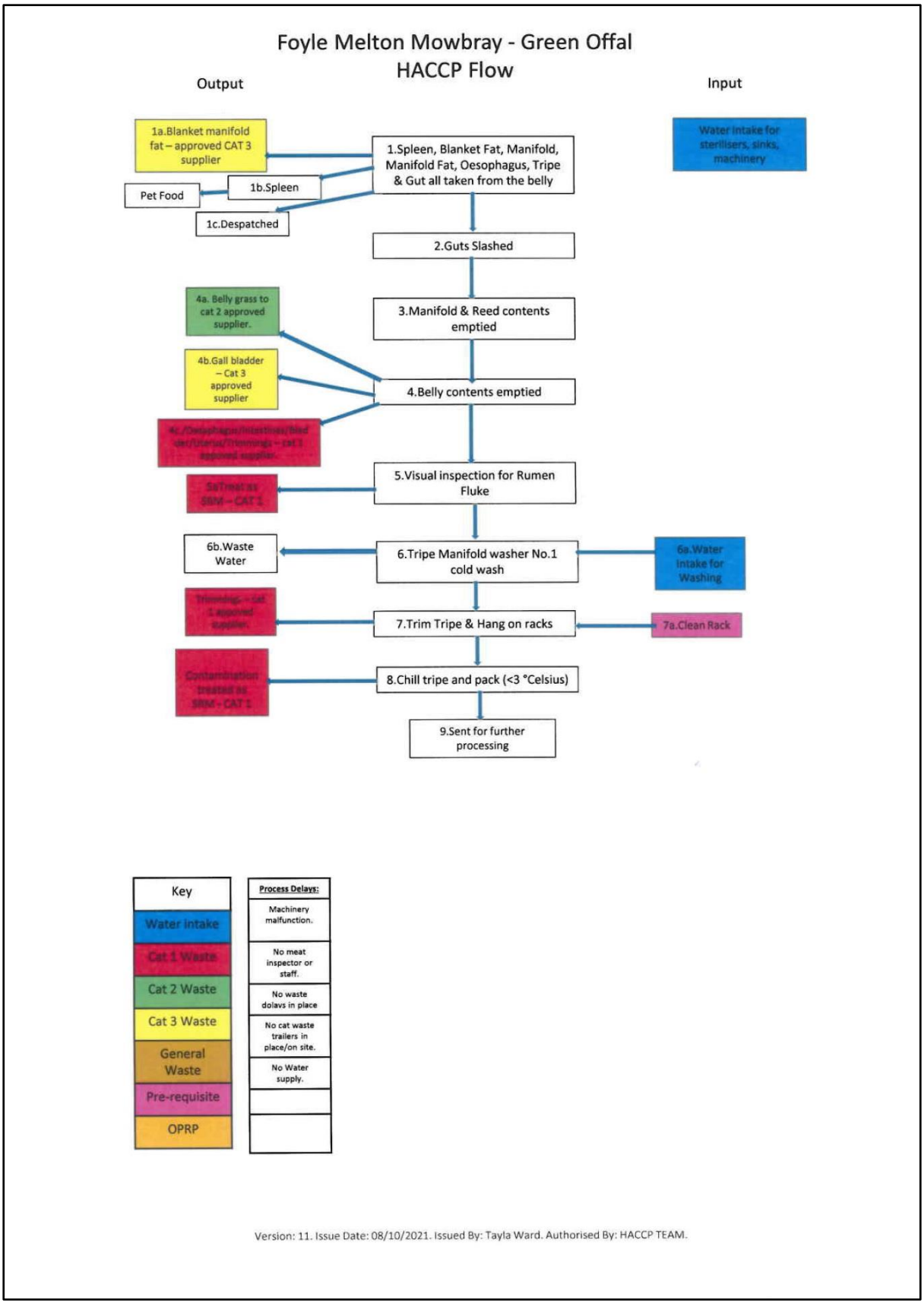



Outputs
Inputs
Cattle Slaughter HACCP Flow.
Organic Animals first
1. Stun
1b) Captive bolt gun, cartridges and blue sterile wipe waste. Cat1
1a) Blue Sterile wipe, Captive bolt & Cartridges approved supplier
2. Shackling and Hoisting
<60 second target
3. Sticking
>180 second bleed
3a. Cat 3 Blood enclosed system to FSA inspection
3b. Cat 3 blood to licensed handler after inspection
4. 1st Legging & Udder Removal
4a) clean hook.
4c. Feet/Hide/Udders /Tail tip/strip of hide removed (Cat 3 licensed handler)
5. 2nd legging
5a) clean hook.
5b. Feet/strip of hide removed(Cat 3 licensed handler)
6. Muzzle, Horns, Front Hock and Ear Tag Removal.
6a.Muzzle, Hock and Horn to cat 3 licensed handler.
7. Ear tag computer check
7a.luggage label from approved supplier
8. Flanking
8a.trim to cat 3 licensed handler
9. Hide Puller (Dehiding and LVES/Attach carcass label)
9a.Low voltage Elec sylmulator LVES.
9b. Apply luggage label – approved supplier
9c. Head plugs – approved supplier.
9d. Hide Room
9e.Hide collection dolav to cat 3 licensed handler
10. Rodding & Oesophageal clip
11. Brisket Saw & foreleg clean cut
11a.front leg bag applied, offal tray from approved suppliers
11b. Tendons removed into trays
11c. Red Offal inspection
11d. Red Offal Flow
12. Bunging
13. Head severing- 3 knives
13B. Remove brain sample and box during TSE sampling period
Key
Water intake.
General Waste
Cat 1 waste
Cat 2 Waste
Cat 3 Waste
OPRP
Pre Requisite.
CCP
Organic
Process Delays:
Bolt gun malfunction
Machinery Malfunction
Computer system malfunction
Falling carcasses
Chiller system breakdown
Line breakdown
Burst Belly
Foyle Melton Mowbray Cattle Slaughter HACCP Flow. Version 20. Issue Date: 06/07/2022. Issued By: Tayla Ward. Authorised By: HACCP Team.

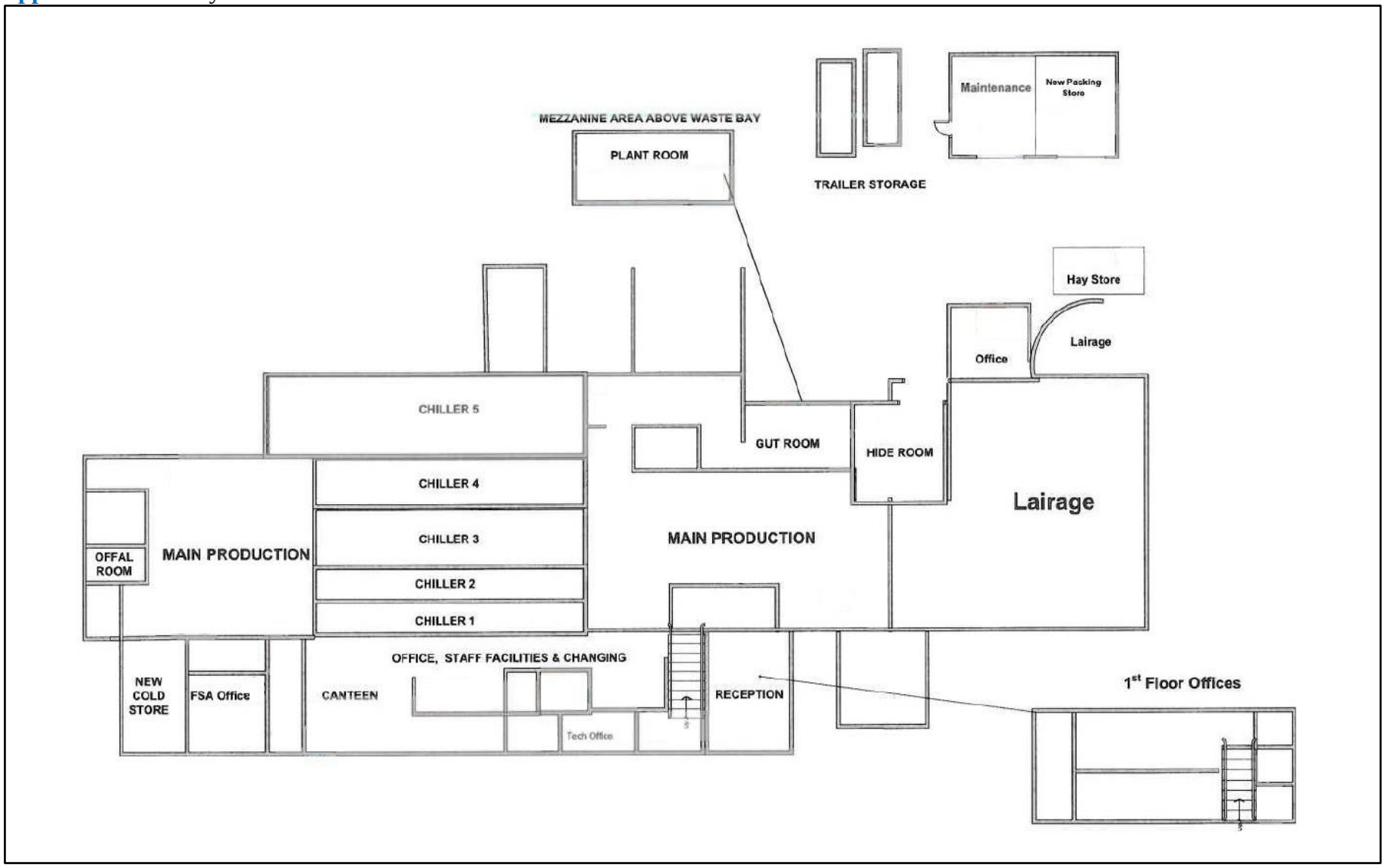

Outputs
Inputs
Cattle Slaughter HACCP Flow.
14f.Red Offal Flow
14c. Red offal inspection and placed trays/racks. Lip/Inner Cheek/Cheek taken off heads and put into tray/rack
14b. Tongues/Head-/Trachea ball placed on offal line
14. Head & Tongue Removal Including Washing
14d.Japan tongues for a further wash.
14e.Red Offal Flow
15a.Green Offal Flow
15. Evisceration & Pluck Removal. Burst Belly Trim & Release to Splitting saw by FBO.
15b. Liver/heart/lungs/aorta
15d.Red Offal Flow
15c. Offal inspection - Liver/heart/aorta - racks/tray
15e. Offal inspection = lungs into dolav to cat 3 licensed handler
16.Meat Inspector/FSA Inspection point for Offal
INTAKE OF WATER TO STERILISERS,HOSE S,SINKS,JETWASH / TONGUE WASH
Compressed air supply
17. Carcass Splitting Saw and Spinal Cord Vacuum/Knife Removal
18. OPRP 1 – Visual Inspection
19.Meat Inspector/FSA Inspection point for carcass
20c. Fat to cat 3 licensed handler
20b. Offal into racks/trays
20. Fat/Skirt/Kidney/Tail/Pizzle&Testicle removal.
20d.Red Offal Flow
21. UTM second tongue Wash
22c.Red offal Flow
22b. Fat Placed in cat 3 bin and neck trim into trays
22.Neck Trim & Brisket Fat
23c. Fat collection – Cat 3 Licensed Handler
23b. Rejected Cod Fat into cat 3 bin for licensed handler
23. Cod fat removal
23e.Red Offal Flow
23d. Cod fat onto rack
24.Final Stand - CCP1 – Zero Tolerance for Milk, Faecal and Ingesta. Technical CCP Verification.
25. Grading – Weigh, apply carcass label, stamp organic cattle & take DNA sample
26. Carcase Rope Inserted if required
27. Hip hang if required
28. Detained Cage/Line in chill if required from FSA carcass inspection.
28a. Released from detain chill by FSA
29. Carcase Chilling.
Loading Bay Flow
Key
Water Intake.
General Waste
Cat 1 waste
Cat 2 Waste
Cat 3 Waste
OPRP
Pre Requisite.
CCP
Organic
Potential for delay:
Computer down/IT fault- STOP killing&wait until fixed.
Line Breakdown- Emergency EV where possible
Water Failure – Stop Killing
Falling carcasses – meat on floor policy followed
Chiller system breakdown
Potential for head plugs to come out at the head severing stage
Burst Belly procedure incl application of burst belly label
Bolt gun malfunction
Foyle Melton Mowbray Cattle Slaughter HACCP Flow. Version 20. Issue Date: 06/07/2022. Issued By: Tayla Ward. Authorised By: HACCP Team.


Foyle Melton Mowbray - Chills & Loading Bay HACCP Flow
Outputs.
Output of dirty hooks throughout LB
General Waste.
Inputs.
Input of clean hooks throughout LB
1. Chilled storage <4oC / <15oC
2. Beef Selection as per load plan
3. Beef Quartered/Rope inserted as per customer specs.
3a. Rope from approved supplier.
4. Quarters transferred to the fore/hind quarter lines.
5. 100% pH inspection and temperature check.
5a. OOS pH carcass labelled with pH label.
Intake of water for sterilisers/sinks.
6.Scanning of carcass barcodes.
7.Container checked and released to loading.
8. OPRP 1 – Carcass FQ/HQ Visual Inspection
9. OPRP 1 – Carcass FQ/HQ Visual Inspection
9a. Foreleg bags applied if required from approved supplier.
10. Quarters loaded onto container
10a. Approved transport company.
11. Stoppers placed down if required
11a. Clean Stoppers.
Despatched to sister sites by the approved transport company.
Process Delays:
Carcass not down <4 in 48 hours / <15 in 24 hours.
Hydraulic malfunction
Vehicle/trailer integrity/hygiene not acceptable
Vehicle breakdown
Vehicle refrigeration breakdown
pH probe malfunction
Computerised system breakdown
Key
Water Intake
Cat 2 Waste
Cat 3 Waste
OPRP
Pre Requisite
Version 12. Issue Date: 07/06/2022. Issued By: Tayla Ward. Authorised By: Site HACCP Team.

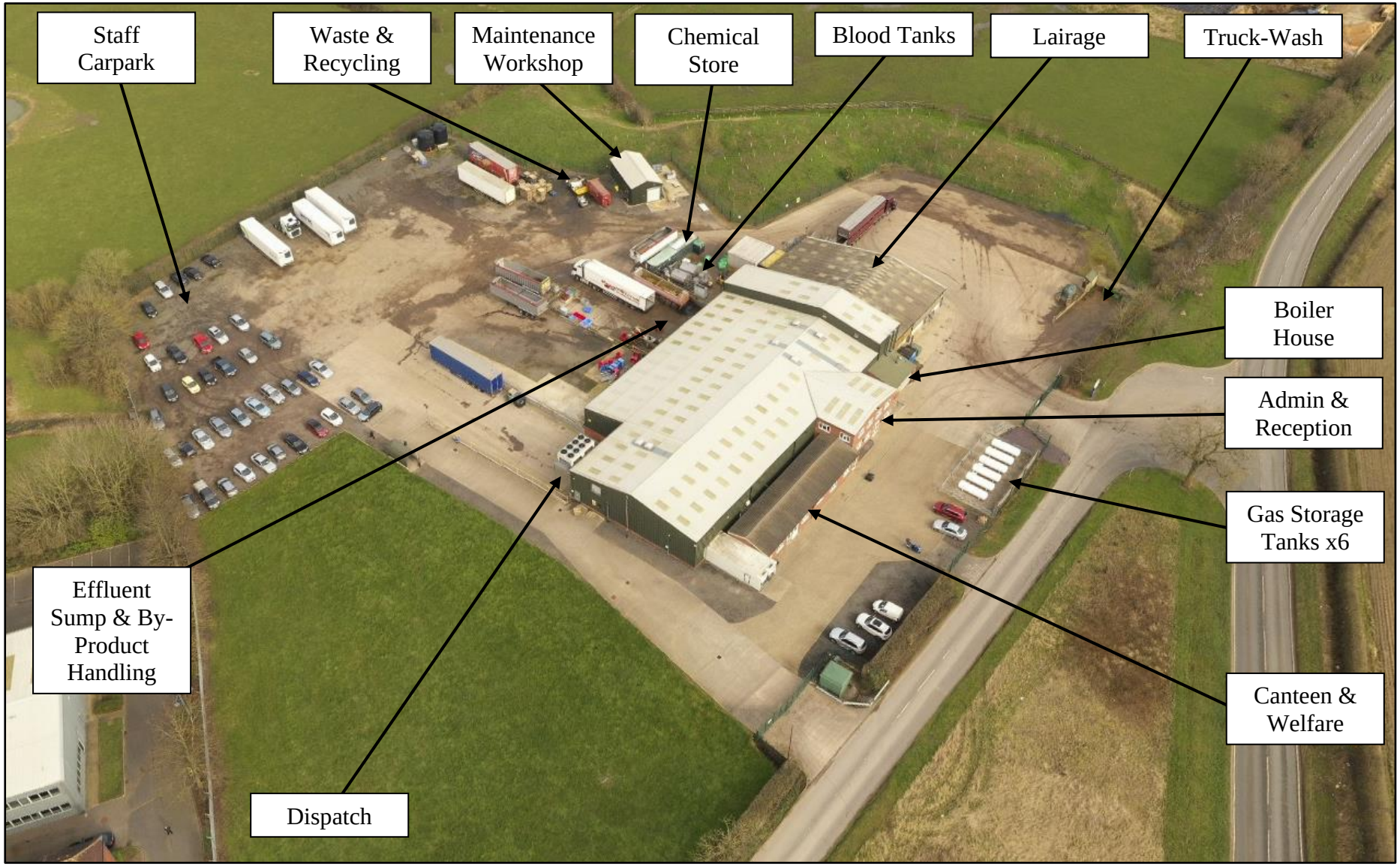

Foyle Melton Mowbray
Red Offal HACCP Flow
Output.
Input.
1. REMOVAL FROM CARCASS - Liver, Tails, Tongue, Testicles, Thick Skirt, Thin skirt, Kidney, Heart, Aorta, Lungs, Spleen, Abattoir trim, Trachea Balls, Membrane, Pizzles, Head meat, Lips, Cheek meat, Cod fat all removed in Slaughter Hall
2) Offal Inspection by MHI
H1. Head placed on red offal line, tongue removed and prepped
3) Offal hung on line/presented to red offal for trimming.
4b)Pet Food harvested for Cat 3 waste (lungs, livers and kidneys not fit for Human Consumption
4) Offal placed into racks/trays
4a.) Input of clean trays/racks/dolav.
H2. Head boned on red offal table
5)Placed into chiller and chilled to <3oC
3c)Decanted into dolavs / bins / packaged
6) Visual Inspection & Temperature Check
6a) sanitising wipes/ temp probe approved supplier.
3d)Chilled to <3°C & subsequently despatched
7)Pack Offal according to product specifications
7a)Intake of food grade packaging from approved supplier
H5. Meat removed and trimmed
General Waste Output
8b. Any leakers are rebagged and vacpacked. Bags are put in general waste
8. Vacuum pack bags/box product
8a)Intake of food grade packaging (vac pack bags and boxes) from approved supplier
9. Dip tank for relevant product.
10. Apply lid, weigh product, apply printed label.
10a. Intake label and lid from approved supplier
11. Product Strapped
11a.) Intake of strapping from approved supplier.
12. OPRP 2 - Metal Detection.
13.Palletise packed boxes of product
13b.) Wooden pallets shrink wrapped
13a)Wooden pallets/shrink wrap from approved supplier
Process Delays:
No Meat Inspector
Chiller Breakdown
No Packaging Delivery
Lack of packaging in the packaging store.
Malfunction of the computer system or label printer.
Malfunction on barcode scanner.
Metal detection malfunction.
Box strapper malfunction/lack of strapping.
14. Chilled Storage <3oC
14a. Chilled approved supplier transport.
Key
Water Intake.
General Waste
Cat 2 Waste
Cat 3 Waste
OPRP
Pre Requisite.
15. Product despatched to customer
16. Outsourced despatched to cold store for freezing – approved supplier.
17. Cold store Storage
18. Despatch to Customer (-18C)
Version 15. Issue Date: 08/10/2021. Issued By: Tayla Ward. Authorised By: HACCP Team.


Foyle Melton Mowbray - Green Offal
HACCP Flow
Output
Input
1a.Blanket manifold fat – approved CAT 3 supplier
1b.Spleen
Pet Food
1c.Despatched
1.Spleen, Blanket Fat, Manifold, Manifold Fat, Oesophagus, Tripe & Gut all taken from the belly
Water intake for sterilisers, sinks, machinery
2.Guts Slashed
4a. Belly grass to cat 2 approved supplier.
3.Manifold & Reed contents emptied
4b.Gall bladder – Cat 3 approved supplier
4.Belly contents emptied
5.Visual inspection for Rumen Fluke
6b.Waste Water
6.Tripe Manifold washer No.1 cold wash
6a.Water intake for Washing
7.Trim Tripe & Hang on racks
7a.Clean Rack
8.Chill tripe and pack (<3 °Celsius)
9.Sent for further processing
Key
Water intake
Cat 1 Waste
Cat 2 Waste
Cat 3 Waste
General Waste
Pre-requisite
OPRP
Process Delays:
Machinery malfunction.
No meat inspector or staff.
No waste dolavs in place
No cat waste trailers in place/on site.
No Water supply.
Version: 11. Issue Date: 08/10/2021. Issued By: Tayla Ward. Authorised By: HACCP TEAM.

Appendix C: Site Layout Plan



Aerial View of the Site



Site Surface/Yard Layout

Figure 1: Maintenance Workshop and Packing Store

Figure 2: Admin and Reception

Figure 3: Canteen and Welfare Facilities

Figure 4: Lairage

Figure 5: Boiler House

Figure 6: Main Structure Construction - Dispatch

Figure 7: Clean Yard – Paving Brick

Figure 8: Clean Yard – Poured Concrete

Figure 9: Dirty Yard - Front of Site

Figure 10: Dirty Yard - East of Site & Truck-Wash

Figure 11: Dirty Yard - Rear of Site & Blood Tanks

Figure 12: Dirty Yard – Air Compressor Hut

Figure 13: Dirty Yard – CAT Trailer &

Figure 14: Dirty Yard – Chemical Store

Figure 15: East of Site – Pours Hardstand & Dirty Yard

Figure 16: Rear of Site – Pours Hardstand & Dirty Yard

Figure 17: Pours Hardstand - Maintenance Workshop

Figure 18: Pours Hardstand – Waste Compactor