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“THE NATURAL BEEF COMPANY”

TO WHOM IT MAY CONCERN.

BINDAREE BEEF ESTABLISHMENT 218 E. COLI O157:H7 STATEMENT OF COMPLIANCE
This statement should be read in conjunction with the Australian Quarantine Inspection Service (AQIS) response to the FSIS, control of ESCHERICHIA COLI O157:H7 by the Australian beef industry.

In response to your request concerning food safety, Bindaree Beef Establishment 218 confirms it has process controls, including its HACCP that are designed to control microbiological hazards (for example E Coli O57:H7)

The HACCP plan has recently been reassessed by December 6th 2002 in line with 9 CFR Part 417 *E. coli O157:H7 Contamination of beef products*, and FSIS Directive 10,010.1) and in accordance with ‘Federal Register Notice 9 CFR Part 417 Docket Number 00-022N dated 7 October 2002 – E. coli contamination of beef products and that *E. coli O157:H7* is considered to be a hazard that is reasonably likely to occur on the carcass or in the meat without the implementation of the HACCP plan.

Bindaree Beef Establishment 218 reassessment of its HACCP plan has recently been audited and verified by the Australian Quarantine and Inspection Service in accordance with Federal Register Notice 9 CFR Part 417 Docket Number 00-022N.

The reassessed HACCP plan found that due to the continuous and effective operation of the sanitary Standard Operating Procedures, Work instructions, Meat Hygiene Assessment, Escherichia, Coliform and Salmonella Monitoring (ESAM), current CCP’s, Corrective action SOP and Pre-shipment Review and the process controls in place at this plant reduce incidence of *E. coli O157:H7* to an acceptable level.

This conclusion was reached after assessing the following information.

Bindaree beef Establishment 218, undertakes microbiological (*E. coli O157:H7*) monitoring as part of its HACCP verification prior to despatch. 5 cartons are sampled for each 700 cartons of product destined for grinding. These are tested on a lot basis.

At Bindaree Beef cartons destined for grinding are sampled from each of the 5 Boning chains each period. The day is divided into 3 periods. The samples collected from each chain are composite and tested. This gives a total of 5 composite tests per day. Other Random samples are also collected from carton product and sent to an independent laboratory for analysis.

Bindaree Beef commenced testing for *E coli O157:H7* in 1997 and since then approximately 20,000 cartons of manufacturing meat have been sampled. There have been no positive detections of *E. coli O157:H7*

The following is a breakdown of other samples tested since the company began testing in 1997.

Other sampling undertaken by the company includes the following tests, which are separate from the manufactured meat

15 carcasses sampled and tested at NATA lab using immunomagnetic separation method 1997

38 Mince samples.

129 samples taken and tested from loads for specific customer by NATA accredited lab.

Shelf life validation on primal cuts conducted in 2001 and 2002

USA Grinding plants- Customer feedback reports dated from the 27th November 2000 through to February 2003, on file showing that *E. COLI O157:H7* has not been detected on Bindaree Beef product processed by them.

Bindaree Beef EST 218 is committed to producing the highest quality, food safe product possible.

Yours Faithfully

Danna Stephens
QA Manager

Process Control

The Bindaree Beef plant in Australia operates under MSQA and HACCP principles. This is based on the following legislation.

The Australian Standards for the Hygienic Production of Meat and Meat products for Human Consumption. This standard covers all aspects for the slaughter; dressing, chilling, breakdown of carcase into cuts, manufacturing packs, the freezing and chilling of these products, storage of product and loadout of product.

Federal Government Legislation to be complied with include

Export Meat Orders.

Export Control ACT.

State Inspection Services.

Department of Agriculture.

AUSMEAT

AQIS – Australian Quarantine Inspection Service.

Australian standards for potable water.

Animal welfare guidelines.

The Bindaree Beef HACCP plan is supported by other management tools such as Meat Hygiene Assessment (MHA) and Pre-requisite Standard Operating Procedures (SOP's) which are part of our Australian Quarantine Inspection Services (AQIS) and approved Meat Safety Quality Assurance (MSQA) programme.

The Meat safety Quality Assurance (MSQA) manual covers all standard operating procedures on plant (SOP'S). There are 8 mandatory SOP's

Waste removal, (Covers all waste removal in the processing areas and outside of the plant)

Pest and Vermin control, (Covers all activities involved in the use and storage of chemicals used for pest and vermin control)

Water –Potable: Provides uniform procedures for water treatment and testing and describes the reticulation system used on this plant.

Hygiene and Sanitation, (Provides the type and frequency of cleaning both before operations start and during normal working hours. Provides instructions on cleaning and sanitation methods for the work environment including meat contact surface facilities, equipment and utensils in edible processing storage areas, non-edible processing, amenities and building surrounds are covered by this SOP.

Maintenance and Facilities: Procedure that establishes the methods used for recording deficiencies, setting priorities, scheduling completion dates for intended action. This is applicable to the maintenance of all edible production and facilities areas, inedible production and facilities areas, processing equipment, buildings, yards, roadway, and offices.

Animal welfare: Procedure that ensures that all processes and instructions are documented and carried out in a manner that observes animal welfare requirements at all times.

Chemical control: Provides Control and security of all chemicals used and stored on plant.

Personal hygiene. This SOP provides the instructions and practices designed to protect the health of staff and to minimise the risk of contamination of product via people who handle and prepare the product

Work instructions have been developed for all operations in the processing areas from stockyards- receipt of cattle to loadout of product. These work instructions are vital in ensuring that there is minimal risk of microbiological contamination of product, including contamination with E. coli O157:H7

Meat Hygiene Assessment is conducted on process and product.

A value called a defect rating describes the product hygiene and a conformity index describes process control.

Assessment of trends is made on both product and process monitoring to identify the level of control attained by the company during operations. Trigger levels are set to instigate corrective action designed to keep the process and product within the critical limits

The Plant has 4 CCP'S in the HACCP plan and they are monitored each period of each production day by Qualified QA officers.

Process Monitoring of each operation throughout the plant is conducted daily by the QA officers. Each operation is monitored for compliance with the work instruction and in accordance with the SOP'S. Monitoring detects any non-compliance with the work instruction and corrective action is taken by the supervisor of the area. Any product that may have been affected is retained. The product is reworked, checked and tested to bring back into compliance.

Product monitoring is a verification of the process. It is conducted on carcase and carton product to ensure that meat being produced is safe, wholesome and suitable for human consumption and not contaminated with hide, hair, faeces, ingesta or other contaminants from the processing environment.

This monitoring is based on a random sampling of a lot. Carcases are monitored after trimming on the slaughter floor and after trimming in the boning room. Carcases lots are checked each production period 3 times per day. All bulk packed Carton product is monitored every 30 minutes.

Personnel.

As food handlers each operative is examined by a doctor and issued with a medical certificate showing that there is no impediment to the handling or in the preparation of fresh meat prior to being employed by the company. Once a medical clearance has been issued the employee is put through the induction training program, which involves training in personal hygiene and safety procedures. The employees are then enrolled in the certificate for meat processing starting at level one and continue on to level three. The employees are trained on the job by qualified trainers utilising the written work instruction. Trainees are assessed on a regular basis to ensure competency is maintained.

The work force is very stable and well trained. Our operatives maintain a high standard and this is reflected in the quality of product produced.

The plant has a Full time Veterinarian Officer, 1 senior food safety officer and 8 food safety officers.

A Quality Assurance Staff of (8). QA Manager, 5 Qualified QA officers and 2 two qualified laboratory technicians

Bindaree Beef is subjected to monthly external audits by AQIS, AUSMEAT, Overseas Customer countries and customers. Internal audits are conducted regularly by qualified food safety officers. Results from both the external and internal audits show that Bindaree Beef processes a safe and wholesome product in accordance with the HACCP plan. The cleanliness of the product is verified by all the micro testing conducted internally and externally by other overseas customers.

VERIFICATION

The Microbiological testing required by the USDA FSIS and AQIS is as follows.

AQIS and Australian Standards for Microbiological testing.

Water is chlorinated on plant and tested at 2 hourly intervals to ensure that residual chlorine level is maintained at or above the limit of 0.25 PPM. The water is sampled and sent to an external NATA approved laboratory for the testing

POTABLE WATER TESTING.

2 hourly checks on chlorine levels every production day.

Annual Testing Physio chemical analysis Refer to meat notice 98/12 and 99/15 Water testing requirements for EU.

Annual test Enterococci,

Quarterly tests Odour, taste, turbidity, metals and *Clostridium Perfringens*.

Monthly Testing T.V.C, Coliform, and E. coli.

CARCASE TESTING. AS REQUIRED BY AQIS

Generic E. coli.

- Samples must be taken at a frequency proportional to the amount slaughtered.
- Steers/Heifers: 1 test per 300 carcasses.
- Cows/Bulls: 1 test per 300 carcasses.

Salmonella testing.

- Steers/Heifers: 1 test per 1500 carcasses.
- Cows/Bulls: 1 test per 1500 carcasses.

The plant currently takes 4 to 5 samples for salmonella per week (1 per day) and 4 sponge samples for E. coli per day. 20 Per week.

Sponges samples sent to external NATA approved laboratory for analysis. The collection of samples and recording of results is monitored by the AQIS VOIC.

Generic E coli is a good benchmark organism as its presence indicates the potential for E coli O157:H7 to be present and as such process controls designed to reduce the incidence of generic E coli will reduce the chance of E coli O157:H7 being on the carcass. Any incidence of Generic E coli or TVC above 50 CFU/cm triggers corrective action which includes a review of WIP preventive measure and monitoring records.

In house Carcass sampling in accordance with the Bindaree HACCP plan.

Sampling Procedure. Carcasses from slaughter floor Daily

Samples are taken three times per day at random using the grab technique from carcasses on the slaughter floor. Sites sampled are the cutting lines along the rump, flank and brisket. This is used as a verification of the dressing procedures. Test for E. coli, Coliforms, and TVC.

Carton product sampling daily

Each production run, 5 x bulk cartons, or 5 x primal cuts or a combination of both to give a total of 5 samples from each boning chain is taken and tested for E. coli, Coliform, and TVC.

The sampling is carried out by the Lab Technician.

E. Coli O157:H7 testing on bulk packed carton product. The company uses 2 screening tests the 20 hour Reveal method and the E. Coli O157 Microwell ELISA For Meat Products and Related Samples.

E. Coli O157:H7 samples are collected from carton product before carton closure. The five samples are taken from each carton. The cartons are selected from each of the five chains and pooled by the chain number for each period. At the end of the third period the samples are composite and blended. 25 grams is taken from each of the five composite samples and enriched and incubated. This gives 5 test results per day for the composite samples. All product is placed under isolation until test results are received. Results are recorded as negative or presumptive positive. Presumptive positive samples are sent to NATA approved laboratory for conformation. No product is released until a clearance is issued.

Bacteriological testing of work surfaces and personal equipment.

Verification of the cleaning process is performed by the following. Pre-operational hygiene monitoring is conducted in all production areas prior to the start of operations. This includes an organoleptic assessment of all areas and surfaces and microbiological swabbing of surfaces from all production areas and Personal equipment of the operatives employed in the production areas. If any surface is deemed to be not hygienically clean, it is re-cleaned and sanitised by the cleaners or employee prior to start of production.

Corrective action is taken if swabs from product surfaces or personal equipment show numbers greater than 2 (CFU/cm²) Colony forming units per square centimetre.

Temperature of carcass and carton product

Temperatures are taken and recorded on both carcasses and carton product. Dataloggers are used daily to track temperature reduction throughout the chilling of carcasses and chilling and freezing of carton products.

Temperatures taken and recorded of carcasses within 20 hours of chilling.

Temperatures taken and recorded on Frozen cartons after 48 hours freezing.

Temperatures taken and recorded on chilled carton product after 20 hours chilling.

Temperatures taken and recorded of each consignment prior to loadout.

The HACCP reassessment has identified the following practices and procedures within our process that are specifically designed to eliminate contamination of carcasses. These practices reduce the likelihood of finding any pathogenic bacteria including E. coli O157:H7

Pre-slaughter

- HACCP based QA programme operate increasingly on farms (cattle care)
- QA program in place for livestock transport (truckcare program)
- QA Mandatory government accreditation for saleyards.
- All stock purchased have a vendor declaration and are traceable to property of origin
- Cattle are handled quietly and humanely in accordance with animal welfare guidelines
- Stockyards and race are designed along Temple Grandin guidelines to minimise stress.
- Pre-slaughter handling of cattle assessed to Temple Grandin guidelines to minimise stress.
- All cattle have ante-mortem inspection before slaughter by AQIS veterinary Officer.
- Cattle with suspect conditions are isolated for AQIS veterinary Officer disposition.
- Lairage is away from processing buildings to eliminate possibility of air born cross contamination but is close enough to allow stress free forceup and handling.
- Stock water troughs are kept clean and fed with clean potable water.
- Lairage is kept clean and pens are hosed out between drafts.
- Cattle are washed prior to slaughter with potable wash, assessed for cleanliness and presented with hides free from visible faeces.
- Traceability is maintained throughout the slaughter process.

Slaughter

Hide on area.

- Humane slaughter of cattle assessed to Temple Grandin guidelines.
- Line speeds are less than 150 per hour (this allows adequate time for operatives to hygienically dress carcasses and check own work for zero tolerance control.
- Hide removal area is separate from hide off area.
- Air flow on the slaughter floor is from the hide off towards the hide on area. (Clean to dirty)
- Faeces and ingesta treated as zero tolerance on dressed carcass.
- Cattle soiled during forceup are hosed to remove faecal contamination (on dry landing area prior to hoisting and subsequent dressing)
- The oesophagus is occluded prior to hoisting to prevent ingesta being regurgitated.
- Prevention of carcasses to carcass contact on rail.
- Hide is damp during removal to prevent dust/aerosol from hide fallout.
- Udders removed in one piece with no milk spillage.
- Milk treated as zero tolerance on dressed carcass.

- Bung is tied and bagged after rumping and prior to hide puller.
- Hide is removed using GMP designed to prevent cross contamination as follows.
 - Procedures commenced with clean hands and sanitised knives and equipment.
 - All equipment which contacts the carcass is sanitised between each carcass and whenever contaminated.
 - Opening cut kept as small as possible.
 - Subsequent cuts are spear cuts.
 - Knives sterilised after each cut through the hide using the two knife system.
 - Outside of hide not allowed to contact cleared/dressed surface of carcass.
 - Hide flapping minimised to reduce hide fallout and cross contamination.
 - Operators check own work.

Hide off area

- Procedures commence with clean hands and sanitised knives and equipment
- All equipment that contacts the carcass is sanitised between each carcass and whenever contaminated.
- Use of a ball point blade on the brisket saw with the leading teeth filed down to help prevent rupturing the paunch.
- AQIS conducts food safety and pathology inspection on all carcass sides, heads and offal.
- The trim step is a designated Critical Control Point (CCP) controlling faeces, ingesta, milk urine, bile and pathology on the dressed carcass. This ensures that sides are hygienically dressed prior to entering the chillers.
- Necks are trimmed to remove the stick wound.
- Air flow and pedestrian traffic are controlled to prevent cross contamination.

Boning room.

Sides boned without delay after unloading from chillers.

Strict time and temperature targets are set and maintained to ensure product is under refrigeration within 60 minutes of commencement of boning.

Boning room is air conditioned to maintain temperature of 10°C or below.

Storage and despatch.

Strict time and temperature targets are maintained to ensure that product is down to a safe temperature of (CCP) 7°C within 20 hours for chilled product and reduced to (CCP) minus 6°C or colder within 48 hours for frozen bulk packed product

Product is stored at a temperature to ensure minimal growth of pathogens (frozen -18°C and chilled -1.5 to +2.

Products are despatched in insulated refrigerated trucks/containers.

References;

- FSIS 2002 Guidance for Minimising the Risk of Escherichia Coli 0157:H7 and Salmonella in Beef Slaughter Operations
- Food science Australia 2003, comments on FSIS 2002 Guide on minimising risk from 0157 and Salmonella.
- AQIS 2003 Control of ESCHERICHIA COLI 0157:H7 by the Australian beef industry.
- USDA 2002 Federal register 9 CFR Part 41700-022-N E coli 0157:H7 Contamination with beef products.
- ESCHERICHIA ECOLI 01587:H7 SHEDDING BY FEEDLOT CATTLE.
- AQIS Meat Notice 98/18 Commercial pathogen testing programs for fresh meat intended for grinding.
- 2002 Federal register 9 CFR Part 41700-022-N
- A Public Health Concern Escherichia coli 01587:H7
- HACCP validation Bindaree Beef EST 218.
- Statical analysis of Bindaree beef historical records
- Shelf life Validation records
- Microbiological testing for the meat industry.
- Bacterial Testing of work surfaces. CSIRO written by C.B. Sentence & P.M Husband June 1993.
- Surfaces and Personal Equipment. Pre-operational hygiene surface testing. Guidelines on contact surfaces. Press plate method. TPC: 20 square centimetres.
- Foodborne Microorganisms of public health significance. (Fifth edition AIFST (NSW Branch. Food Microbiology Group)
- Animal Handling with Dr Temple Grandin
- AQIS Operational guidelines for the welfare of animals at abattoirs and slaughter houses.