Humane Handling GMPs
A Regulatory Perspective

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The Market Cow
Humane Handling GMPs

- GMP = Good Management Practice
- Non-food safety initiative addressing improved compliance, product quality, etc.
- Example – Humane Handling Audit
  - Identifies areas critical to compliance in plant’s animal handling system
  - A preemptive approach to regulatory humane handling compliance
“Know the Rules”

- Acts
  - MPIA, HSA

- Regulations
  - 9CFR Part 313

- Directives
  - FSIS Directive 6900.1 Disabled Livestock
  - FSIS Directive 6900.2 Humane Handling and Slaughter of Livestock

- Notices
  - FSIS Notice 12-05 Humane Handling Documentation
Addressing Overall Compliance in Self-Assessment

- Facilities
- Animal Handling
- Stunning
- Disabled Animals

Assessment parameters will be plant-specific based on factors such as age and layout of facility, slaughter class, etc. The goal is to meet and preferably exceed regulatory requirements.
Facilities

9 CFR 313.1

(a) Livestock pens, driveways and ramps shall be maintained in good repair. They shall be free from sharp or protruding objects which may, in the opinion of the inspector, cause injury or pain to the animals. Loose boards, splintered or broken planking and unnecessary openings where the head, feet, or legs of an animal may be injured shall be repaired.

(b) Floors of livestock pens, ramps, and driveways shall be constructed and maintained so as to provide good footing for livestock. Slip resistant or waffled floor surfaces, cleated ramps and the use of sand, as appropriate, during winter months are examples of acceptable construction and maintenance.

(d) Livestock pens and driveways shall be so arranged that sharp corners and direction reversal of driven animals are minimized.
Self-Assessment of Facilities

- Program should address regulatory standard rather than local paradigms.
- Recognize a “dynamic process” that will change with age of facility, slaughter population, changing environmental conditions, etc.
9 CFR 313.2

(a) Driving of livestock from the unloading ramps to the holding pens and from the holding pens to the stunning area shall be done with a minimum of excitement and discomfort to the animals. Livestock shall not be forced to move faster than a normal walking speed.

(b) Electric prods, canvas slappers, or other implements employed to drive animals shall be used as little as possible in order to minimize excitement and injury. Any use of such implements which, in the opinion of the inspector, is excessive, is prohibited. Electrical prods attached to AC house current shall be reduced by a transformer to the lowest effective voltage not to exceed 50 volts AC.

(c) Pipes, sharp or pointed objects, and other items which, in the opinion of the inspector, would cause injury or unnecessary pain to the animal shall not be used to drive livestock.
Animal Handling

- FSIS Directive 6900.2

Once a vehicle carrying livestock enters an official slaughter establishment’s premises, the vehicle is considered to be a part of that establishment’s premises. The animals within that vehicle are to be handled in accordance with 313.2.
Stunning

- **FSIS Directive 6900.2**

  Appropriate stunning methods are required for an establishment to be in compliance with the HMSA. When stunning is done correctly, animals feel no pain, are rendered instantly unconscious, and remain unconscious until slaughtered.
Many adult cattle that enter slaughter market channels in a disabled state become non-ambulatory during delivery or after arrival at the slaughter facility.

- Transport
- Livestock Markets
- Packinghouse
Current US regulations state that all non-ambulatory disabled cattle are to be condemned and disposed of in accordance with 9 CFR 309.13.
9CFR 309.2(b) defines non-ambulatory disabled livestock, including cattle as livestock that cannot rise from a recumbent position or that cannot walk, including, but not limited to, those with broken appendages, severed tendons or ligaments, nerve paralysis, fractured vertebral column or metabolic conditions.
Down-Cow Humane Handling

Additional in-plant measures to minimize handling and discomfort of disabled cattle

- Minimize handling
- Provide adequate comfort and protection
- Timely euthanasia
Ambulatory Disabled Cattle
Lamenesses Observed in Dairy Cattle at Slaughter

- Tibial Nerve Paralysis
- Peroneal Nerve Paralysis
Handling Ambulatory Disabled Cattle
FSIS Daily Verification of In-Plant Humane Handling: The Humane Handling Checklist

- Measures for inclement weather
- Truck unloading
- Water availability
- Ante mortem inspection
- Disabled animals
- Prod use
- Slips & falls
- Stunning efficacy
- Insensitivity on the bleeding rail

- Subsets of these tasks are performed daily by veterinarians and/or inspectors. Results are recorded in an electronic database.
- FSIS Notice 12-05
Ante Mortem Findings in Suspect Cattle

Est. 9400 Ante Mortem Suspects
1-1-05 to 2-28-05

921 Suspect Cattle:
885 Holstein Cows, 10 Non-Holstein Dairy, 19 Beef, 7 Bulls
Reducing the Ambulatory Disabled Cow Problem

- Producer quality assurance programs for on-farm humane handling
- Preconditioning cull dairy cows
- Direct marketing by larger herds
- Regulatory controls on the transportation marketing, and slaughter of ambulatory disabled cattle
New York State Cattle Health Assurance Program Cattle Welfare Module

A Certification Program requiring written SOPs addressing on-farm cattle welfare:

- Non-ambulatory Cattle
- Euthanasia Decision Plan
- Euthanasia Action Plan
- Lameness
- Hospital Animals
- Newborn calves
- Facilities
- Movement and handling
- Routine/Elective Surgical Procedures
- Transport Decision Plan
New York State Cattle Health Assurance Program Animal Welfare Module

- SOPs reviewed by NYSCHAPS Veterinarian
- Employees involved in animal care trained and evaluated
- Signed statement of commitment to animal welfare principles
Cornell/Taylor/NCBA
Cow Feeding Study

- 65 head of Holstein cows from auctions
- Preg. checked and eliminated bred cows
- 2 pens at Cornell beef T&R center
- Half implanted with Revalor
- Fed High grain with Melengesterol Acetate
- Tested for antibiotic residues and Johnes
- One pen fed Optaflexx (Ractopamine) last 28 days
Adding value through feeding
(after culling from the milking herd)

- Gain significant weight
- Increase dressing percent
- Replenish muscle tissue
- Make yellow fat white
- Market timing
- Solving lameness problems (get off concrete)
- Reduce antibiotic residues
- Utilize “free” feeds --- refusal feeds
Unseen Cow Defects

- **Johnes Disease**
  - Based on tests of fecal samples
    - 24 cows culled
    - 1 mortality
    - 16 (29.1%) diagnosed positive for Johnes

- **Antibiotic Positive**
  - Based on Urine Sample
    - 5 (9.4%) initially positive
    - 0 positive at slaughter
Direct Marketing by Producers

- Has the potential to reduce transit time and commingling at cattle markets
- Recognition of producers consistently delivering high quality cattle (= $?)
- Problems:
  - Chargeback for condemned cattle – can be costly with a BLV herd.
  - Discounting of cattle suspected and residue tested (FAST positives with ceftiofur, subtolerance tetracycline, etc. is a problem).
Regulatory Controls on the Movement of Disabled Cattle

- From a field regulatory standpoint, consistent application is a challenge.
- When, where, and by whom would transport decisions be made?
- Ambulatory disabled cattle do not have a high condemnation rate. Therefore, a significant loss of usable protein to the edible channel would occur.
Producer Quality Assurance

New York State Cattle Health Assurance Program
The End Product: Measurable and Meaningful Progress

- Improved cattle movement
- Improved facilities that better address the needs of the slaughter population
- Reduction in prod use
- Reduction in number of fallen cows in the serpentine
- Improved equipment maintenance procedures
- Increased awareness – employees, producers and transporters - outreach
Process Failure Vortex

- Poor Communication
- Failure to address written standard
- Local Paradigms
- Aggressive Approach
- Non-compliance
- Inability or Unwillingness to comply
Scheduled periodic discussions of in-plant humane handling
- Can be included periodically in weekly HACCP meetings
- Should include HH auditors and animal handling supervisors
  - Audits and findings
  - Facilities improvements
  - Incident reports
  - Non-compliances/corrective actions/preventive measures
Effective In-Plant Environment

FSIS

Verifiable Compliance

Consistent Application of Regulations, Directives, and Notices

HATS Monitoring

Industry

Documentation

Dialog

Active Monitoring

Knowledge of Standards

Commitment to Principles of Animal Welfare
Prioritization

- Residues
- Salmonella Compliance Testing
- Imported Cattle
- E. coli 0157:H7
- Animal Handling
- Multi-Drug Resistant Salmonella
- BSE
- HACCP
- Generic E. Coli
- Prerequisite Programs
Thanks