Guidance for Written Livestock Humane Handling Plan

The written humane handling plan should detail how your establishment intends to comply with the Humane Methods of Slaughter Act, the Federal Meat Inspection Act, the Vermont Statutes, and regulations to ensure humane handling. The following document lists the current state and federal regulations, followed by questions in **BOLD**, to help you think about what you actually do in your establishment to comply with the regulations. There is not a required format for the writing of the plan. However, it should be comprehensive and at the minimum address each of the following regulations:

9 CFR 313.1: Livestock pens, driveways, ramps:

(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.

How do you assure your maintenance of pens, driveways and ramps so that they remain in good repair and free from sharp or protruding objects?

(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.

How do you assure the maintenance of the floors and of good footing for animals? List any slip resistant surfaces you have in place, and describe what you do in special circumstances (such as icy or muddy conditions) to ensure slip resistance.

(c) U.S. Suspects (as defined in §301.2(xxx)) and dying, diseased, and disabled livestock (as defined in §301.2(y)) shall be provided with a covered pen sufficient, in the opinion of the inspector, to protect them from the adverse climatic conditions of the locale while awaiting disposition by the inspector.

Where is your covered pen for disabled or suspect animals located?
Describe the protection it offers from bad weather and how it separates them from the other animals that are able to walk.

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

Describe how the set up or design of your establishment minimizes direction reversal of animals when being moved?

9 CFR 313.2: Handling of Livestock

(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.

How do you move animals to assure they are driven at a walking speed with minimum excitement?

Describe any training employees are given on handling of livestock.

What direction or oversight is given to non-employees (truck drivers, farmers, animal owners, etc.) on humane handling of livestock when they help with the offloading of animals?

(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.

Describe the implements or objects do you use to drive animals.

How do you assure they are used properly to minimize excitement, and that they do not cause injury or pain?

(d) Disabled livestock and other animals unable to move.

(1) Disabled animals and other animals unable to move shall be separated from normal ambulatory animals and placed in the covered pen provided for in §313.1(c).

(2) The dragging of disabled animals and other animals unable to move, while conscious, is prohibited. Stunned animals may, however, be dragged.

(3) Disabled animals and other animals unable to move may be moved, while conscious, on equipment suitable for such purposes; e.g., stone boats.

<u>The dragging of disabled conscious animals is prohibited</u>.

How do you handle animals that are unable to move or get up?

What is your protocol for animals that arrive to the establishment that are unable to rise or walk?

If you use equipment for moving conscious downed animals, what kind of equipment do you use?

If you stun these downers, where in your establishment do you do this? Do you then bleed them at that spot, or take them somewhere else to bleed? How long is it typically between the time you stun them to the time you bleed them?

(e) Animals shall have access to water in all holding pens and, if held longer than 24 hours, access to feed. There shall be sufficient room in the holding pen for animals held overnight to lie down.

How do you assure animals have access to water at all times in holding pens?

How do you assure animals that are held on a transport truck waiting to be offloaded have access to water?
How do you assure animals have appropriate feed if held greater than 24 hours?
How do you assure animals held overnight have sufficient room to lie down?

(f) Stunning methods approved in §313.30 shall be effectively applied to animals prior to their being shackled, hoisted, thrown, cast, or cut.

Methods of Stunning

6 Vermont Statutes Annotated, Chapter 201 § 3132. Prohibition:
No slaughterer, packer or stockyard operator may bleed or slaughter livestock except by a humane method. The use of a manually operated hammer, sledge, poleax or similar instrument is not a humane method within the meaning of this chapter.
"Humane method" means either:
(A) A method whereby the animal is rendered insensible to pain by mechanical, electrical, chemical or other means that is rapid and effective before being shackled, hoisted, thrown, cast or cut.
(B) A method in accordance with ritual requirements of the Jewish faith or any other religious faith whereby the animal suffers loss of consciousness by anemia of the brain caused by the simultaneous and instantaneous severance of the carotid arteries with a sharp instrument.

What method(s) do you use to effectively stun animals before shackling, hoisting, throwing, casting or cutting the animal?

For Mechanical: Captive Bolt, proceed to page 4.
For Mechanical: Gunshot, proceed to page 7.

9 CFR 313.5: Chemical: Carbon Dioxide

- Approved for swine, sheep and calves only
- Please contact the VT Agency of Agriculture if you are planning to use Chemical stunning methods for a listing of the applicable regulations

9 CFR 313.30: Electrical: stunning or slaughtering with electric current

- Approved for swine, sheep, calves, cattle, and goats only
- Please contact the VT Agency of Agriculture if you are planning to use Electrical stunning methods for a listing of the applicable regulations

9 CFR 313.15: Mechanical: Captive bolt

- Approved for all livestock

The slaughtering of sheep, swine, goats, calves, cattle, horses, mules, and other equines by using captive bolt stunners and the handling in connection therewith, in compliance with the provisions contained in this section, are hereby designated and approved as humane methods of slaughtering and handling of such animals under the Act.

(a) Application of stunners, required effect; handling.

(1) The captive bolt stunners shall be applied to the livestock in accordance with this section so as to produce immediate unconsciousness in the animals before they are shackled, hoisted, thrown, cast, or cut. The animals shall be stunned in such a manner that they will be rendered unconscious with a minimum of excitement and discomfort.

(2) The driving of the animals to the stunning area shall be done with a minimum of excitement and discomfort to the animals. Delivery of calm animals to the stunning areas is essential since accurate placement of stunning equipment is difficult on nervous or injured animals. Among other things, this requires that, in driving animals to the stunning areas, electrical equipment be used as little as possible and with the lowest effective voltage.

This was addressed under Handling of Livestock. If you do something extra to minimize the excitement of animals as they are driven to the stunning area, please describe.

(3) Immediately after the stunning blow is delivered the animals shall be in a state of complete unconsciousness and remain in this condition throughout shackling, sticking and bleeding.

(b) Facilities and procedures —

(1) General requirements for stunning facilities; operator.

(i) Acceptable captive bolt stunning instruments may be either skull penetrating or nonpenetrating. The latter type is also described as a concussion or mushroom type stunner. <u>Penetrating</u> instruments on detonation deliver bolts of varying diameters and lengths through the skull and into the brain. Unconsciousness is produced immediately by physical brain destruction and a combination of changes in intracranial pressure and acceleration concussion. <u>Nonpenetrating</u> or mushroom stunners on detonation deliver a bolt with a flattened circular head against the external surface of the animal's head over the brain. Diameter of the striking surface of the stunner may vary as conditions require. Unconsciousness is produced immediately by a combination of acceleration concussion and changes in intracranial pressures. A combination instrument utilizing both penetrating and nonpenetrating principles is acceptable. Energizing of instruments may be accomplished by detonation of measured charges of gunpowder or accurately

controlled compressed air. Captive bolts shall be of such size and design that, when properly positioned and activated, immediate unconsciousness is produced.

(ii) To assure uniform unconsciousness with every blow, compressed air devices must be equipped to deliver the necessary constant air pressure and must have accurate, constantly operating air pressure gauges. Gauges must be easily read and conveniently located for use by the stunning operator and the inspector. For purposes of protecting employees, inspectors, and others, it is desirable that any stunning device be equipped with safety features to prevent injuries from accidental discharge. Stunning instruments must be maintained in good repair.

Describe how you keep stunning instruments maintained in good repair.
What is the maintenance schedule for the stunner?
Where do you write down (i.e. document) when maintenance is done on the stunner?

(iii) The stunning area shall be so designed and constructed as to limit the free movements of animals sufficiently to allow the operator to locate the stunning blow with a high degree of accuracy. All chutes, alleys, gates and restraining mechanisms between and including holding pens and stunning areas shall be free from pain-producing features such as exposed bolt ends, loose boards, splintered or broken planking, and protruding sharp metal of any kind. There shall be no unnecessary holes or other openings where feet or legs of animals may be injured. Overhead drop gates shall be suitably covered on the bottom edge to prevent injury on contact with animals. Roughened or cleated cement shall be used as flooring in chutes leading to stunning areas to reduce falls of animals. Chutes, alleys, and stunning areas shall be so designed that they will comfortably accommodate the kinds of animals to be stunned.

How is the stunning area designed to limit the movements of animals to allow for accurate stunning?
Describe any special restraints you have for certain species of animals.
Describe your method of restraining animals for stunning?
How many animals are stunned at one time?
How do you reduce falls of animals in chutes leading to, and in the stunning area itself?

(iv) The stunning operation is an exacting procedure and requires a well-trained and experienced operator. He must be able to accurately place the stunning instrument to produce immediate unconsciousness. He must use the correct detonating charge with regard to kind, breed, size, age, and sex of the animal to produce the desired results.

How do you assure the effectiveness of the captive bolt in producing immediate unconsciousness?
Are your employees instructed to look for signs of unconsciousness in animals after stunning?
How do you train employees for this job to ensure their methods are effective?
How do you document their training?

What is the protocol if the initial stun is not effective and the animal is still conscious?
What kind of detonating charge does the employee use when stunning animals?
How is it decided as to what kind of charge is used?

(2) Special requirements and prohibitions.

(i) Choice of instrument and force required to produce immediate unconsciousness varies, depending on kind, breed, size, age, and sex of the animal. Young swine, lambs, and calves usually require less stunning force than mature animals of the same kind. Bulls, rams, and boars usually require skull penetration to produce immediate unconsciousness. Charges suitable for smaller kinds of livestock such as swine or for young animals are not acceptably interchanged for use on larger kinds or older livestock, respectively.

(ii) Captive bolt stunners that deliberately inject compressed air into the cranium at the end of the penetration cycle shall not be used to stun cattle.
What is your policy on the use of captive bolt stunners that inject air?

9 CFR 313.16: Mechanical: Gunshot

The slaughtering of cattle, calves, sheep, swine, goats, horses, mules, and other equines by shooting with firearms and the handling in connection therewith, in compliance with the provisions contained in this section, are hereby designated and approved as humane methods of slaughtering and handling of such animals under the Act.

Do you use a firearm to stun animals?
What type of firearm?
Under what conditions would you use a firearm?

(a) Utilization of firearms, required effect; handling.

(1) The firearms shall be employed in the delivery of a bullet or projectile into the animal in accordance with this section so as to produce immediate unconsciousness in the animal by a single shot before it is shackled, hoisted, thrown, cast, or cut. The animal shall be shot in such a manner that they will be rendered unconscious with a minimum of excitement and discomfort.

(2) The driving of the animals to the shooting areas shall be done with a minimum of excitement and discomfort to the animals. Delivery of calm animals to the shooting area is essential since accurate placement of the bullet is difficult in case of nervous or injured animals. Among other things, this requires that, in driving animals to the shooting areas, electrical equipment be used as little as possible and with the lowest effective voltage.

Where is the shooting area when you employ the use of firearms?

(3) Immediately after the firearm is discharged and the projectile is delivered, the animal shall be in a state of complete unconsciousness and remain in this condition throughout shackling, sticking and bleeding.

(b) Facilities and procedure —

(1) General requirements for shooting facilities; operator.

(i) On discharge, acceptable firearms dispatch free projectiles or bullets of varying sizes and diameters through the skull and into the brain. Unconsciousness is produced immediately by a combination of physical brain destruction and changes in intracranial pressure. Caliber of firearms shall be such that when properly aimed and discharged, the projectile produces immediate unconsciousness.

(ii) To assure uniform unconsciousness of the animal with every discharge where small-bore firearms are employed, it is necessary to use one of the following type projectiles: Hollow pointed bullets; frangible iron plastic composition bullets; or powdered iron missiles. When powdered iron missiles are used, the firearms shall be in close proximity with the skull of the animal when fired. Firearms must be maintained in good repair. For purposes of protecting employees, inspectors and others, it is desirable that all firearms be equipped with safety devices to prevent injuries from accidental discharge. Aiming and discharging of firearms should be directed away from operating areas.

What type of bullets are used?

Does the type of bullet used vary depending on the species/size/etc. of the animal?
How is the firearm maintained?

(iii) The provisions contained in §313.15(b)(1)(iii) with respect to the stunning area also apply to the shooting area.
(iv) The shooting operation is an exacting procedure and requires a well-trained and experienced operator. He must be able to accurately direct the projectile to produce immediate unconsciousness. He must use the correct caliber firearm, powder charge and type of ammunition to produce the desired results.
What employee training is given for the use of the firearm as a stunning device?
How do you document their training?
Are your employees instructed to look for signs of unconsciousness in animals after stunning?
How is the stunning area designed to limit the movements of animals to allow for accurate stunning?
Describe any special restraints you have for certain species of animals.
Describe your method of restraining animals for stunning?
How many animals are stunned at one time?
How do you reduce falls of animals in chutes leading to, and in the stunning area itself?

(2) Special requirements. Choice of firearms and ammunition with respect to caliber and choice of powder charge required to produce immediate unconsciousness of the animal may vary depending on age and sex of the animal. In the case of bulls, rams, and boars, small bore firearms may be used provided they are able to produce immediate unconsciousness of the animals. Small bore firearms are usually effective for stunning other cattle, sheep, swine, and goats, and calves, horses, and mules.

How do you assure the effectiveness of the firearm in producing immediate unconsciousness?
What is the protocol if the initial stun is not effective and the animal is still conscious?

Additional Information:

Please describe any additional information that has been incorporated into your humane handling program that was not asked for above.

Describe any humane handling audits you conduct or have conducted for you.

The information contained in this publication was created solely as a general guide and as a public service in order to provide a broad educational overview of humane handling regulations. The laws and regulations in this area are complex and their interpretation and application to each situation may vary. Because we do not know how you are using this information, we do not make any warranties or guarantees (express or implied) about the information as it relates to your particular situation. Please contact Meat Inspection with specific questions.