

# USE OF THE 'PENETRATING CAPTIVE BOLT' AS A MEANS OF RENDERING EQUINES INSENSIBLE FOR SLAUGHTER VIOLATES 'THE HUMANE SLAUGHTER ACT OF 1958'

## I. The Humane Slaughter Act of 1958

The Humane Slaughter Act (HSA), was first enacted in 1958, and amended in 1978 and 2002. HSA requires slaughterhouses to render livestock unconscious before they are killed.

### PRIMARY CITATION: 7 USC 1901 - 1907

#### 7 U.S.C.A. § 1901 Findings and Declaration of Policy

The Congress finds that the use of humane methods in the slaughter of livestock prevents needless suffering; results in safer and better working conditions for persons engaged in the slaughtering industry; brings about improvement of products and economies in slaughtering operations; and produces other benefits for producers, processors, and consumers which tend to expedite an orderly flow of livestock and livestock products in interstate and foreign commerce. It is therefore declared to be the policy of the United States that the slaughtering of livestock and the handling of livestock in connection with slaughter shall be carried out only by humane methods.

#### 7 U.S.C.A. § 1902 Humane Methods

No method of slaughtering or handling in connection with slaughtering shall be deemed to comply with the public policy of the United States unless it is humane. Either of the following two methods of slaughtering and handling is hereby found to be humane:

(a) in the case of cattle, calves, horses, mules, sheep, swine, and other livestock, all animals are **rendered insensible to pain by a single blow or gunshot or an electrical, chemical or other means that is rapid and effective, before being shackled, hoisted, thrown, cast, or cut; or**

(b) by slaughtering in accordance with the ritual requirements of the Jewish faith or any other religious faith that prescribes a method of slaughter 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 and handling in connection with such slaughtering.

## II. Captive Bolt / Exsanguination: Method of Achieving Insensibility Used in the United States

The penetrating captive bolt followed by immediate exsanguination (bleeding out) has been the preferred method of achieving insensibility of equines in American slaughterhouses since the early 1980's. The mode of action of a penetrating captive bolt gun is concussion and trauma to the brain. This requires that it be held firmly against the surface of the head over the intended site. **Because placement and positioning of the projectile is critical, some degree of restraint is required for proper use of this device.**

While the destruction of brain tissue with the penetrating captive bolt *may* be sufficient to result in death, operators **are strongly advised to ensure death by exsanguination.**

(Source: <http://lacs.vetmed.ufl.edu/HumaneEuthanasia/Ex.htm>)

It is important to note that in the foreign owned equine slaughterhouses operating in the United States, no form of restraint is used when the equine is in the kill chute or 'knock box' waiting for the penetrating captive bolt to be applied. In some instances, it takes several attempts to effectively apply the penetrating captive bolt the equine, if this is achieved at all. The use of the penetrating captive bolt is in violation of 7 U.S.C.A. § 1902 (a) of the Humane Slaughter Act as this methodology requires more than one blow and is inefficient at rendering equines immediately insensible.

(Sources: (i) Dr. Lester Friedlander, DVM and former USDA Inspector, (ii) Humane Farming Association video documentation [ <http://www.manesandtailsorganization.org/media.htm>])

### **III. No Other Methods of Equine Slaughter Comply with the HSA of 1958**

- (1) Electrocutation – this methodology does not satisfy the 'one blow' requirement, and it cannot be used for equines.
- (2) Drug Overdose – this method saturates the tissues and leaves residues thereby making the meat inedible.
- (3) Carbon Monoxide – this method saturates the tissues and leaves residues thereby making the meat inedible
- (4) .22 Caliber Gun Shot – This particular firearm is inappropriate for equines due to the thickness of the skull structure of an equine. Using the .22 caliber rifle does not achieve instantaneous insensibility of equines. Larger caliber firearms such as a 9mm or .357 are required to efficiently penetrate the skull and cause the massive brain destruction necessary to achieve instantaneous insensibility. (Source: Procedures for Humane Euthanasia of Sick, Injured and/or Debilitated Livestock - <http://lacs.vetmed.ufl.edu/HumaneEuthanasia/gun.htm>) Additionally, the horse cannot be restrained and this method is dangerous to workers.

### **III. The American Veterinary Medical Association and the American Association of Equine Practitioners Positions Regarding Equine Slaughter**

Both the American Veterinary Medical Association and the American Association of Equine Practitioners deem the use of the penetrating captive bolt 'acceptable.' The American Veterinary Medical Association '2000 Report of the AVMA Panel on Euthanasia' evaluated Euthanasia according to this criterion:

- (1) ability to induce loss of consciousness and death without causing pain, distress, anxiety, or apprehension;
- (2) time required to induce loss of consciousness;
- (3) reliability;
- (4) safety of personnel;

- (5) irreversibility;
- (6) compatibility with requirement and purpose;
- (7) emotional effect on observers or operators;
- (8) compatibility with subsequent evaluation, examination, or use of tissue;
- (9) drug availability and human abuse potential;
- (10) compatibility with species, age, and health status;
- (11) ability to maintain equipment in proper working order; and
- (12) safety for predators/scavengers should the carcass be consumed.

The use of the penetrating captive bolt gun does not meet the AVMA Panel's criteria regarding "loss of consciousness and death without causing pain, distress, anxiety, or apprehension." Unlike bovines (which the captive bolt was designed for) equines possess different skull structures, are flight animals, and attempt to flee the 'knock box' or 'kill chute.' That being the case, it takes numerous attempts before the animal is properly stunned, if this is achieved at all. From documentation provided by the Humane Society of the United States and the Humane Farming Association it is clear that these equines are feeling pain due to the number of attempts taken to stun them, and are extremely distressed, anxious, and apprehensive.

**This invalidates criteria 1, 2, 3, 6, and 10 of the AVMA's criterion for 'humane euthanasia.'**

The AVMA position regarding the use of the penetrating captive bolt is in violation of 7 U.S.C.A. § 1902 (a) of the Humane Slaughter Act as this methodology requires more than one blow and is inefficient at rendering equines insensible.

### **CONCLUSION:**

The use of the penetrating captive bolt is in violation of the Humane Slaughter Act generally, and 7 U.S.C.A. § 1902 (a) specifically. Any other method of slaughter as applied to equines is in violation of the Humane Slaughter Act of 1958 generally, and 7 U.S.C.A. § 1902 (a) specifically.