

Facilitator Guide for Situation-Based Humane Handling Training

Module Two – Stunning and Post-Stunning Situations

Facilitator notes are in highlighted bold print. Answers to questions are in bold. Regular text represents what appears on the participant’s handout.

Participants for Module 2 must have:

- **Performance elements for antemortem/humane handling duties and potentially perform those duties on a regular or recurring basis.**
- **Read FSIS Directive 6900.2 Rev. 3.**
- **Successfully completed Module 1. Download from**
<https://www.fsis.usda.gov/wps/portal/fsis/topics/inspection/workforce-training/regional-on-site-training/Humane+Handling+of+Livestock>.

Required Materials for Module 2

- **Participant Handout and exam for each person and FSIS Directive 6900.2 Rev. 3 (available as a group reference – individual copies are not necessary).**
<https://www.fsis.usda.gov/wps/wcm/connect/2375f4d5-0e24-4213-902d-d94ee4ed9394/6900.2.pdf?MOD=AJPERES>

Step 1 - Explain again why we are doing this: On December 22, 2010, FSIS announced several measures that will better ensure the humane treatment and slaughter of all cattle presented for processing at FSIS-inspected facilities. One of those measures was delivery of situation-based humane handling training for inspection personnel. In addition, FSIS has recently issued Directive 6900.2 Revision 3.

Step 2 - Explain that this module covers stunning and post-stunning assessment for consciousness. Stress the importance of determining ‘sensibility’ in order to make a determination of what, if any, enforcement action needs to be taken. Cover the ‘stunning’ examples under the definition for ‘egregious’ in Directive 6900.2 Rev. 3. (#s 5, 6, and 7).

Step 3 - Have participants read the objectives and instructions in their handout. Ask if there are any questions before beginning. Be aware that additional training on determining sensibility is available on AgLearn in the Humane Handling Consciousness and Stunning Humane Handling Basics course.

Objectives: When presented with specific situations at livestock slaughter establishments, participants will be able to:

- Verify humane handling-related regulatory compliance,
- Identify humane handling-related regulatory noncompliance,
- Determine whether a noncompliance is egregious, and
- Select appropriate actions to be taken.

Instructions: Each situation is to be read and discussed as a group with facilitation provided by the PHV, or designee. After discussing each situation, participants should have a thorough understanding of the proper response. A minimum score of 70% must be achieved on the final exam and returned for course credit.

Step 4 - Read each situation and lead inspection personnel to an understanding of a supportable decision.

Note: This training is not intended to cover all possible “what if” situations. It is more important to stress the thought process from the objectives. It should take approximately 45 minutes to discuss the situations. Allow 15 minutes to complete the exam at the end.

Situations

- 1) Inspectors at the cattle head inspection station notice that some heads have 2 or 3 “stun wounds”. They notify off-line Inspection Program Personnel (IPP) of the multiple stun wounds. The off-line inspector immediately proceeds to the stunning area and observes that establishment personnel consistently produce insensibility with one stun attempt of the pneumatic captive bolt gun. The establishment has a good history of properly stunning animals and sometimes the employee doing the stunning administers additional “security” stuns on insensible cattle to ensure animals remain insensible.
 - Does this scenario represent noncompliance? **No, there is no noncompliance as described if the establishment is consistently producing immediate unconsciousness with a single stunning attempt. The establishment may be using additional “security” or “safety” stuns to ensure animals do not return to sensibility. Note: Make sure participants understand that “security stuns” are sometimes used especially on large bulls and that the stuns may be administered on the forehead or behind the poll to the back of the head. The key point is that the first stun attempt consistently renders the animals insensible. Additional stuns are used to ensure there is no return to sensibility. If on-line inspectors have concerns, they should notify off-line personnel and not take a Regulatory Control Action since a determination of regulatory compliance/noncompliance needs to be made by off-line IPP.**
 - Is it an egregious situation? **Not applicable**
 - What action should be taken by inspection personnel? **None.**

- 2) A head fork (or wand) placed behind the ears is used to electrically stun a market hog. The hog becomes stiff, goes down, and appears properly stunned. By the time it is hoisted on the line, rhythmic breathing has returned, the eyes begin to blink normally, and the front feet begin paddling motions. An establishment employee sticks the animal’s neck and it responds with vocalization, struggling, and trying to lift its head while looking around until it expires from blood loss about 30 seconds later.

- Does this scenario represent noncompliance? **Yes, 313.30(a)(4) requires that stunned animals remain in a state of surgical anesthesia through shackling, sticking, and bleeding.**
 - If so, is it an egregious situation? **Yes, allowing this animal to return to consciousness is egregious as defined by FSIS Directive 6900.2 Rev. 3 in Chapter 1, V, B-5, "Stunning of animals and then allowing them to regain consciousness".**
 - What action, if any, should be taken by inspection personnel? **A Regulatory Control Action (RCA) should be taken at the stunning area according to 313.50(b) and 500.2(a)(4) and the IIC will follow current instructions for egregious noncompliance in FSIS Directive 6900.2 Rev. 3, including documenting on a Noncompliance Record.**
- 3) An attempt is made to stun a nonambulatory disabled sow in the antemortem pens with a hand-held captive bolt gun, but the animal moved its head at the last moment and the attempt failed, missing the head completely. The animal did not appear excited as a result of the missed attempt and the operator immediately applied another stun attempt from a pre-loaded backup hand-held captive bolt device which was successful in properly stunning the sow. The establishment has a good history of properly stunning nonambulatory disabled animals.
- Does this scenario represent noncompliance? **No, there is no noncompliance that would be documented in this case since the first attempt completely missed the animal and the missed attempt did not cause excitement or discomfort.**
 - If so, is it an egregious situation? **Not applicable**
 - What action should be taken by inspection personnel? **It would be appropriate to discuss your observation with establishment management during the weekly meeting and document the discussion in a Memorandum of Interview (MOI). Make the establishment aware of the potential for a different outcome that could result in a RCA (e.g., animal is injured during the attempt with no immediate corrective action). By discussing it during the weekly meeting, this would also document that IPP have identified a potential problem and notified establishment management.**
- 4) A heifer has been stunned and hung on the line in the "stack". The animal's head and eyes give the appearance of being properly stunned (e.g., no blinking, no righting reflex, no rhythmic breathing, loose floppy tongue) but the legs are kicking violently. An establishment employee designated to watch the stack notices the kicking animal and immediately delivers another stun attempt to the heifer with a hand-held captive bolt gun. The kicking continues despite the additional stun.
- Does this scenario represent noncompliance? **No, there is no noncompliance as described. The animal shows no signs of sensibility. Kicking is indicative of reflex action in absence of other signs of return to consciousness and, in this case, the employee through an abundance of caution delivers a second stun attempt, often**

called a “security” or “safety” stun. Again, note that the security stun may be delivered to the back of the head or the forehead and its purpose is to ensure the animal remains insensible.

- If so, is it an egregious situation? **Not applicable**
 - What action should be taken by inspection personnel? **None, although the subject of establishment employee training to recognize the signs of consciousness could be discussed at a weekly meeting. While the establishment employee’s decision to apply a security stun is good, they should also understand what reflex kicking is.**
- 5) A group of market hogs are hung on the line after carbon dioxide stunning. Prior to the stick, one hog begins to show signs of a potential return to sensibility with rhythmic breathing and spontaneous blinking. Establishment employees notice this and immediately stun the animal with a hand-held captive bolt gun kept at that location specifically for that purpose. Rhythmic breathing and blinking discontinue, and the animal appears properly stunned.
- Does this scenario represent noncompliance? **No, the establishment employees accurately identified that there were signs this animal was in the process of becoming sensible and immediately took action to prevent that from occurring.**
 - Is it an egregious situation? **Not applicable.**
 - What action should be taken by inspection personnel? **An appropriate response would be to review the CO₂ records for the time period immediately prior to the IPP’s observations. If deviations are found these may be the basis for a noncompliance under 313.5(b)(3).**
- 6) A small caliber rifle is discharged into the center of the forehead of a mature bull with a heavy winter coat. The bull vocalizes and remains standing but does not try to move away from the establishment employee who fired the rifle. The employee reloads the rifle and repeats the procedure with the same result and the animal is now very agitated and bleeding from the head. A third stun attempt has the same ineffective result and a fourth stun attempt finally renders the bull insensible.
- Does this scenario represent noncompliance? **Yes, 313.16(a)(1) requires that the firearm produce immediate unconsciousness by a single stun attempt and that the animal be rendered insensible with a minimum of excitement and discomfort. Regulation 9 CFR 313.16(b)(1)(iv) requires that the proper caliber of firearm be used to produce the desired results.**
 - If so, is it an egregious situation? **Yes, this is a sensible animal and there was no provision for an immediate corrective action - as evidenced by the need to stop and reload – and subsequent stunning attempts continued to be ineffective. FSIS Directive 6900.2 Rev. 3, Chapter 1, V, B-6, “Failing to immediately (or promptly) render an animal unconscious after a failed initial stunning attempt (e.g., no planned corrective actions)”. Also meets several of the definitions in V, B-7 (a, c,**

and e). This type of situation is one that an establishment should have been able to identify as a potential problem and addressed. For example, having specific procedures for stunning larger animals, such as boars or bulls, may require higher caliber firearms or more powerful ammunition.

- What action should be taken by inspection personnel? **A RCA should be taken at the stunning area according to 313.50(b) and 500.2(a)(4) and the IIC will follow current instructions for egregious noncompliance in Directive 6900.2 Rev. 3, including documenting on a Noncompliance Record.**

Note: Discuss that FSIS Directive 6090.1, Firearm Safety in Official Establishments requires IPP to verify stunning by firearms from a safe location.

<https://www.fsis.usda.gov/wps/wcm/connect/77e6947a-4f3b-46fe-8e6f-8305d1829b28/6090.1.pdf?MOD=AJPERES>

- 7) A small caliber rifle is discharged into the center of the forehead of a mature bull with a heavy winter coat. The bull vocalizes and remains standing but does not try to move away from the establishment employee who fired the rifle. The employee immediately picks up a loaded higher caliber rifle from its holding rack next to the stunning box and discharges it. This second stun attempt renders the bull insensible as determined by its falling to the floor and its wide-open blank eyes. To assure the bull is insensible, the employee reaches down and lightly taps one eye; there is no response to the tap. The establishment has a good history of consistently rendering animals, including bulls, insensible with a single stun.
- Does this scenario represent noncompliance? **Yes, 313.16(a)(1) requires that the firearm produce immediate unconsciousness by a single stun and that the animal be rendered insensible with a minimum of excitement and discomfort. 313.16(b)(1)(iv) requires that the proper caliber of firearm be used to produce the desired results.**
 - If so, is it an egregious situation? **No, although this is a sensible animal provisions had been made for an immediate corrective action - as evidenced by the availability of a loaded higher caliber rifle for immediate use - and the subsequent stunning attempt was effective.**
 - What action should be taken by inspection personnel? **A Noncompliance Record should document that the first stun attempt was ineffective, i.e., the animal remained sensible, but an immediate corrective action was taken that rendered the animal insensible. We would expect the establishment's response to include a means of preventing a similar recurrence, e.g., the larger caliber rifle will be used for the initial stunning for all bulls.**
- 8) A small heifer is in a large restrainer with plenty of room to move around and the operator is attempting to "chase" the animals head to deliver the stun attempt with a pneumatic captive bolt stunning device. The operator completely misses the first attempt and, as the animal continues to move around to avoid the stunner, the second attempt strikes the animal's head off-center above the eye. The animal vocalizes loudly as a result but still does not go

down. After two more unsuccessful attempts and several minutes, the animal is properly stunned.

- Does this scenario represent noncompliance? **Yes, there is noncompliance with 313.15(a)(1) and 313.15(b)(1)(iii) because the stunner is not being applied to produce immediate unconsciousness and the stunning area is not limiting the free movement of the animal to allow for stunning with a high degree of accuracy.**
- Is it an egregious situation? **Yes, multiple attempts, especially in the absence of immediate corrective measures, to stun an animal versus a single stun attempt are egregious according to FSIS Directive 6900.2 Rev. 3, Chapter I, V, B-6. This also meets the definition of egregious in Chapter I, V, B-7, a, b, and e.**

Note: The definition of egregious in Chapter I, V, B-7, b is specific to a lack of restraint causing ineffective stun resulting in egregious noncompliance.

- What action should be taken by inspection personnel? **An RCA should be taken at the stunning area according to 313.50(b) and 500.2(a)(4) and the IIC will follow current instructions for egregious noncompliance in Directive 6900.2 Rev. 3, including documenting on a Noncompliance Record.**

9) At a particular goat slaughter establishment that performs ritual slaughter, the religious authority has stipulated that the animals be stunned with a hand-held captive-bolt stun device after the ritual cut. While observing slaughter at this establishment, the Consumer Safety Inspector (CSI) observes a goat being ritually cut and then stunned with a hand-held captive-bolt device. The animal is laid on the floor prior to shackling where it promptly raises its head and rolls up to a sitting position with its front legs tucked in. The establishment employee in the area is in the process of shackling and hoisting another animal and does not notice the animal in the sitting position until the inspector brings it to his attention. After several minutes, the employee effectively stuns the animal with a hand-held captive bolt device.

- Does this scenario represent noncompliance? **Yes, when stunning is performed as a part of the standard ritual procedure, as stipulated by the religious authority, all of the requirements of an effective stun must be met.**
- Is it an egregious situation? **Yes, allowing this animal to return to consciousness is egregious especially in absence of any immediate action by the establishment to restun the animal. See FSIS Directive 6900.2 Rev 3, Chapter I, V, B-5, and B-6.**
- What action should be taken by inspection personnel? **A RCA should be taken at the stunning area according to 313.50(b) and 500.2(a)(4) and the IIC will follow current instructions for egregious noncompliance in Directive 6900.2 Rev. 3, including documenting on a Noncompliance Record.**

10) An establishment uses a head-thorax (chest) electrical stunning device with two separate wands. An establishment employee places one wand in the hollow immediately behind one ear and the second wand on the middle of the thorax and then energizes the electrical stunner. The animal exhibits rigor, i.e., muscles become stiff with head lifted slightly, when the stunner is energized. When the wands are removed the pig drops but within a few seconds stands up fully conscious. The establishment employee does not know what to do and applies the device again with the same results. After an additional attempt with the same results, IPP notify establishment management of the incident and an establishment supervisor replaces the stunning device (wand and unit) and effectively stuns the animal on the fourth attempt.

- Does this scenario represent noncompliance? **Yes, there is noncompliance with 313.30(a)(1), (a)(3), and (b)(3) because the electrical application did not produce immediate insensibility, unconsciousness, or a state of surgical anesthesia in the animal.**
- Is it an egregious situation? **Yes, in absence of immediate corrective actions, this would be egregious. This is a case of electro-immobilization where - due to low amperage resulting from incorrect settings or equipment failure - the animal is paralyzed but not rendered insensible. See FSIS Directive 6900.2 Rev. 3, Chapter I, V, B-6, and B-7 a, c, d, and e.**
- What action should be taken by inspection personnel? **An RCA should be taken at the stunning area according to 313.50(b) and 500.2(a)(4) and the IIC will follow current instructions for egregious noncompliance in Directive 6900.2 Rev. 3, including documenting on a Noncompliance Record.**

11) A steer has been stunned with a pneumatic captive-bolt stunner and hung on the line in the “stack”. The animal’s head and eyes give the appearance of a properly stunned animal (i.e., no blinking, head hanging straight and floppy, and a loose floppy tongue). However, when the stick is administered the head is raised abruptly to the right and holds in that position for 3 – 4 seconds before dropping back into its original position.

- Does this scenario represent noncompliance? **No, there is no noncompliance as described. The animal shows no sign of return to sensibility. A sideways lifting of the head, a reflexive motion often seen during the stick due to stimulation of nerves in the chest area, is not indicative of a sensible animal. This sideways lifting of the head is not the same as a righting reflex - where an animal lifts its head towards and in line with its spine - which does indicate sensibility.**
- If so, is it an egregious situation? **Not applicable**
- What action should be taken by inspection personnel? **None**

Note: This is a good time to discuss gasping, or agonal breathing, that may also be mistaken as a sign of return to sensibility. Gasping is indicative of a dying brain and is not a sign of return to sensibility. Normal rhythmic breathing, however, is indicative of a possible return to sensibility.

12) A steer is ritually slaughtered and, after the ritual cut and bleed out period, is hung on the overhead rail for dressing. An establishment employee, noticing the animal's sides moving in a rhythmic manner, lightly taps one eye which elicits a slow eye blink. He immediately picks up a hand-held captive bolt gun from a stand in the hoisting area and applies it to ensure the animal remains insensible throughout the dressing procedure. The employee reports it to management, who then investigate for possible causes and corrective actions as part of its systematic approach to humane handling and slaughter.

- Does this scenario represent noncompliance? **No, not as described. The establishment identified signs of returning sensibility in the animal and took immediate corrective actions with a captive bolt stun. Additionally, as part of its systematic approach to humane handling and slaughter, establishment management investigated the cause to identify a means to prevent similar problems in the future.**
- Is it an egregious situation? **Not applicable**
- What action should be taken by inspection personnel? **None, although it would be appropriate to discuss your observation with establishment management during the weekly meeting and document the discussion in a MOI.**

13) A steer has been stunned with a pneumatic captive bolt and hung on the line. While in the stack prior to sticking, the animal is vocalizing, observed to be blinking its eyes, swallowing, and attempting to raise its head up towards and in line with its spine (i.e., a righting reflex). Establishment employees do not notice this animal until IPP attract their attention and have them render the steer insensible.

- Does this scenario represent noncompliance? **Yes, this is noncompliance with 313.15(a)(3) because the animal does not remain in state of insensibility throughout shackling, sticking, and bleeding.**
- If so, is it an egregious situation? **Yes, allowing an animal to return to consciousness is egregious. See FSIS Directive 6900.2 Rev. 3, Chapter I, V, B-5, "Stunning of animals and then allowing them to regain consciousness".**
- What action should be taken by inspection personnel? **An RCA should be taken at the stunning area according to 313.50(b) and 500.2(a)(4) and the IIC will follow current instructions for egregious noncompliance in Directive 6900.2 Rev. 3, including documenting on a Noncompliance Record.**

14) A small corral is loaded with multiple hogs for the purpose of stunning prior to slaughter. The first animal is stunned with scissor-type electrodes across the head and immediately goes down appearing to be insensible. Within a few seconds after release from the head scissors, the animal begins strong reflex kicking in the hind legs repeatedly striking a nearby hog which cannot get away due to the crowded condition. The hog vocalizes loudly as a result of being kicked and becomes increasingly agitated because of the kicking of the stunned animal but does not appear to be hurt.

- Does this scenario represent noncompliance? **Yes, there is noncompliance with 313.30(a)(2) because the animals are not driven or conveyed to the place of application of electric current with a minimum of excitement and discomfort.**
- Is it an egregious situation? **No, this does not meet the definition of egregious from FSIS Directive 6900.2 Rev. 3.**
- What action should be taken by inspection personnel? **Notify the establishment and, if not promptly corrected, the inspector would take a RCA according to 313.50(b) and 500.2(a)(4). Depending upon the situation, it may be necessary to take an RCA prior to notifying the establishment to stop the inhumane treatment of livestock. Document the noncompliance on a NR in any case.**

Step 5 - At this point, give the exam to each participant and allow 15 minutes for completion. Participants may keep the handout and use it and any notes they have taken during the session for the exam. A minimum score of 70% must be achieved to receive course credit. Mail the completed exams to the following address:

**FSIS, OEED, TTDL
5601 Sunnyside Ave. 1-2290, Mail Stop 5270
Beltsville, MD 20705-5270
Or E-Fax 301-504-3372**

or email to the FSISAgLearn@usda.gov mailbox.