



Resources

FSIS has several resources available to support enhanced outreach to small and very small establishments on humane handling and GCPs. As outreach efforts continue, DVMSs are encouraged to provide feedback on guidance and resources developed by FSIS and to identify useful support developed through partners. These are a few examples:

- [Industry Support and Resources](#) (see updated link from FSIS homepage);
- [Small Plant Help Desk](#);
- [Niche Meat Processor Assistance Network](#) (search for humane handling);
- [Cooperative Extension System](#)

See Appendix 3 (page 23) for a more comprehensive list of resources.

Additionally, the National Humane Handling Enforcement Coordinator (HHEC) will facilitate coordination with the Office of Employee Experience and Development (OEED), OPACE and the Office of Policy and Program Development (OPPD) to develop additional resources and support as needed and assist in coordination with other outreach efforts across the Agency and with Industry.

Next Steps

After the Agency completes preparations for the small and very small establishment DEO program, including readying the DVMSs for additional duties, the Office of Field Operations (OFO) will fully implement the program in calendar year (CY) 2020. OFO will continue to identify resources and review the program to make adjustments as needed. Updates will be provided to the DVMSs by email and/or through the DVMS SharePoint site. OFO will work with OPACE, OEED, OPPD and others as appropriate to identify training and resources for DVMSs on crucial conversations, messaging, policy changes, and related topics that may be beneficial.

Humane Handling and GCP Resources

These resources are available to DVMSs to share with slaughter establishments.

FSIS Humane Handling Resources

- Humane Methods of Slaughter Act §1902 (<https://www.govinfo.gov/content/pkg/USCODE-2014-title7/pdf/USCODE-2014-title7-chap48.pdf>);
- 9 CFR 313 (<https://www.govinfo.gov/content/pkg/CFR-2000-title9-vol2/pdf/CFR-2000-title9-vol2-part313.pdf>);
- FSIS Directive 6900.2 Rev.2 8/15/11 Humane Handling and Slaughter of Livestock (<https://www.fsis.usda.gov/wps/wcm/connect/2375f4d5-0e24-4213-902d-d94ee4ed9394/6900.2.pdf?MOD=AJPERES>);
- FSIS Humane Handling Resources webpage (<https://www.fsis.usda.gov/wps/portal/fsis/topics/regulatory-compliance/humane-handling>);
- HIKE Scenarios (<https://www.fsis.usda.gov/wps/portal/fsis/topics/inspection/workforce-training/hike/hike-scenarios>);
- Situation-Based Humane Handling Modules 1 and 2 (2011) (<https://www.fsis.usda.gov/wps/portal/fsis/topics/inspection/workforce-training/regional-on-site-training/Humane+Handling+of+Livestock>);
- 2013 FSIS Compliance Guide of a SA to the HH of Livestock (<https://www.fsis.usda.gov/wps/wcm/connect/da6cb63d-5818-4999-84f1-72e6dabb9501/Comp-Guide-Systematic-Approach-Humane-Handling-Livestock.pdf?MOD=AJPERES>);
- 2017 PHV Refresher Training: Consciousness and Stunning (<https://www.fsis.usda.gov/wps/wcm/connect/bd0306ae-68ce-4337-ad3e-61da08eabbaa/PHV-Refresher-Training-Consciousness-Stunning.pdf?MOD=AJPERES>);
- Federal Register Notice/Vol. 69, No. 174, September 9, 2004 – Merits of a Systematic Approach (<https://www.fsis.usda.gov/wps/wcm/connect/3057b87f-1b34-49ea-8e8d-73414b576e5e/04-013N.pdf?MOD=AJPERES>);
- USDA FSIS Humane Handling of Livestock and Poultry: An Education Guidebook Based on FSIS Polices (Revised June 2015) (https://www.fsis.usda.gov/wps/wcm/connect/96407439-2142-40c7-8e16-c24949f637ce/humane_handling_booklet.pdf?MOD=AJPERES);

- Humane Handling of Livestock and Good Commercial Practices in Poultry PHV Training (04-18-2017) (https://www.fsis.usda.gov/wps/wcm/connect/175cda99-ece9-48de-9f75-95499ac3cee7/PHVt-Humane_Handling.pdf?MOD=AJPERES);
- AskFSIS Humane Handling Answered Questions (<https://askfsis.custhelp.com/app/answers/list/st/5/kw/Humane%20Handling/page/1>);
- FSIS Humane Handling Blog (<https://www.usda.gov/media/blog/archive/tag/humane-handling>);
- Small Plant Help Desk (<https://www.fsis.usda.gov/wps/portal/fsis/topics/regulatory-compliance/svsp/sphelpdesk>);
 - Email: InfoSource@usda.gov or call 1-877-FSIS-HELP (1-877-374-7435).

FSIS Poultry Resources

- FSIS PHIS Directive 6100.3 4/11/11 Ante-Mortem and Post-Mortem Poultry Inspection (https://www.fsis.usda.gov/wps/wcm/connect/724ad094-823a-4e06-83f4-47ecbbefad53/PHIS_6100.3.pdf?MOD=AJPERES);
- FSIS Directive 6110.1 7/3/18 Verification of Poultry Good Commercial Practices (<https://www.fsis.usda.gov/wps/wcm/connect/39d791f2-6bc2-4bb4-bdfc-72504da30f76/6110.1.pdf?MOD=AJPERES>);
- Federal Register Notice/Vol. 70, No. 187, September 28, 2005 - Treatment of Live Poultry Before Slaughter (<https://www.govinfo.gov/content/pkg/FR-2005-09-28/pdf/05-19378.pdf>);
- DOAs in a Poultry Slaughter Establishment Ask FSIS Question (https://askfsis.custhelp.com/app/answers/detail/a_id/1166/kw/doa);
- Humane Handling Ombudsman: Dr. Kurt Schulz
 - If you have a humane handling related comment, concern, or wish to file a complaint, Dr. Schulz's contact information is below:
 Email: kurt.schulz@osec.usda.gov
 USDA/FSIS Attn: Dr. Kurt Schulz
 Edward Zorinsky Federal Building
 1616 Capitol Avenue, Suite 260
 Omaha, NE 68102

Resources for Industry

- North American Meat Institute Foundation (<http://www.animalhandling.org/>);
 - Recommended Animal Handling Guidelines & Audit Guide: A Systematic Approach to Animal Welfare; June 2017 Rev. 1 (<http://certifiedhumane.org/wp-content/uploads/animal-handling-guidelines-June152017.pdf>);
- Temple Grandin – Website Resources (<https://www.grandin.com/>);
- Humane Slaughter Association (UK Resource) (<https://www.hsa.org.uk>);

- National Chicken Council (<https://www.nationalchickencouncil.org/>);
- National Turkey Federation (<https://www.eatturkey.org/standards/>).

Captive Bolt

- Captive-Bolt Stunning of Livestock, Humane Slaughter Association (2013) (<http://www.hsa.org.uk/introduction/introduction>); and
- Bildstein, Chuck. Captive Bolt Guns & Electrical Stunners. Bunzl Processor Division Koch Supplies (2019) (<https://www.meatinstitute.org/index.php?ht=a/GetDocumentAction/i/160441>).

Firearms

- Humane Killing of Livestock Using Firearms. *Humane Slaughter* (2014) (<https://www.hsa.org.uk/downloads/publications/humane-killing-using-firearms-updated-with-2016-logo.pdf>); and Woods, Jennifer. Firearm Stunning Beef and Sheep. VPM –
- *Animal Welfare; NAMI Animal Care and Handling Conference*. (Oct. 2016) (<https://www.meatinstitute.org/index.php?ht=a/GetDocumentAction/i/127674>).

Electrical

- Electrical Stunning of Red Meat Animals. Humane Slaughter Association (2016) (<https://www.hsa.org.uk/downloads/publications/electricalstunningdownload.pdf>); and
- Vogel, K. D., Bradtram, G., Claus, J. R., Grandin, T., Turpin, S., Weykler, R. E., and Voogd, E. (2011). Head-only followed by cardiac arrest electrical stunning is an effective alternative to head-only electrical stunning in pigs. *Journal of Animal Science*. 89 (1412-1418) (<https://www.ncbi.nlm.nih.gov/pubmed/21183712>).

Controlled Atmosphere

- Martoft, L., Lomholt, L., Koltoff, C., Rodriguez, B. E., Jensen, E. W., Jorgensen, P. F., Pedersen, H. D., & Forslid, A. (2002). Effects of CO₂ anaesthesia on central nervous system activity in swine. *Laboratory Animals* 36 (116-126) (<https://www.ncbi.nlm.nih.gov/pubmed/11943075>); and
- Carbon Dioxide Stunning and Killing of Pigs. Humane Slaughter Association (May 2007) (<https://www.hsa.org.uk/downloads/technical-notes/TN19-carbon-dioxide-pigs-HSA.pdf>).

Kosher and Halal Slaughter

- Grandin, T. (2014). Kosher Box Operation, Design, and Cutting Technique will Affect the Time Required for Cattle to Lose Consciousness. Department of Animal Science at Colorado State University (<http://grandin.com/ritual/kosher.box.variables.time.lose.sensibility.html>); and
- Grandin, T. (2012). Maintaining acceptable animal welfare during Kosher or Halal slaughter. Department of Animal Science at Colorado State University (<http://grandin.com/ritual/maintain.welfare.during.slaughter.html>).

Troubleshooting

- Grandin, T. (1996). Factors that impede animal movement at slaughter plants. *Journal American Veterinary Medical Association*. 209 (757-797)(<https://www.grandin.com/references/abstract-14.html>);
- Trouble shooting Captive-Bolt Equipment, *Humane Slaughter Association* (2013) (<https://www.hsa.org.uk/introduction/troubleshooting-captive-bolt-equipment>); and
- Voogd, Erika L. Improving Electrical Stunning with B&D Stunner. Voogd Consulting, Inc. (2011) (http://www.voogdconsulting.com/images/Improving_Electrical_Stunning_with_B_D_Stunner_w_d.pdf).

Poultry Resources

- Welfare Guidelines. National Turkey Federation. *AMI Animal Care and Handling Conference*. (October 2014) (<https://www.meat institute.org/index.php?ht=a/GetDocumentAction/i/104491>);
- National Chicken Council Animal Welfare Guidelines and Audit Checklist For Broilers. *NCC*. (February 2017) (https://www.nationalchickencouncil.org/wp-content/uploads/2018/07/NCC-Animal-Welfare-Guidelines_Broilers_July2018.pdf);
- Grandin, T. Poultry Slaughter Plant and Farm Audit: (July 2009) (<https://www.grandin.com/poultry.audit.html>);
- Slaughter Guidelines for Poultry. A Greener World. (<https://agreenerworld.org/certifications/animal-welfare-approved/standards/slaughter-guidelines-for-poultry/>);
- Thaxton, Yvonne Vizzler and Christensen, Karen D. Poultry Stunning. University of Arkansas System (<https://www.meat institute.org/index.php?ht=a/GetDocumentAction/i/116619>); and
- Bourassa, Dianna V. Controlled Atmosphere Stunning for Poultry Processing. Auburn University. *NAMI Animal Care and Handling Conference*. (Oct. 2019)(<https://www.meat institute.org/index.php?ht=a/GetDocumentAction/i/160399>).

**APPENDIX 5:
Sample Humane Handling/GCP
Non-compliance Records (NR)**

Sample HHNRs

HATS Category I – Adequate Measures for Inclement Weather

At approximately 0645 hours while performing HATS Category IV - Handling During Ante-mortem Inspection, I observed the following non-compliance with HATS Categories I – Adequate Measures for Inclement Weather and III – Water and Feed Availability: Three goats were present in pen 1 and four steers were present in pen 3. Both pens had red plastic water buckets placed in the corners of the pens and as I reviewed the contents I noted that the water was frozen. I notified Mr. Smith, Slaughter Supervisor of the non-compliance with regulation 9 CFR 313.2(e) with regards to access to water in holding pens. Mr. Smith proceeded to dump the contents of the buckets out and I noted an approximately eight-centimeter layer of ice build-up on the top of each water bucket. Mr. Smith immediately refilled the buckets and stated he would refill them as needed during the day's production. I periodically verified that the establishment was compliant through the day. I verbally notified Mr. Smith of the forthcoming non-compliance record.

HATS Category II – Truck Unloading

At approximately 1430 hours while performing HATS Category II – Truck Unloading, I observed the following non-compliance: While watching truck unloading from the outside unloading area, I observed a livestock hauler driving one dairy cow off a livestock trailer. The cow slipped as she was walking from the trailer to the unloading ramp and her right front foot slipped into an approximately fifteen-centimeter gap between the trailer and the ramp. The cow was not able to remove her foot from the gap and vocalized. The hauler continued to try and drive the animal forward. I verbally requested that he discontinue trying to move the animal and informed him that the cow was stuck. I then notified Ms. Smith, Slaughter Supervisor, of the situation and she immediately assisted the cow in removing its front foot. After the foot was removed, I noted a five-centimeter bleeding wound on the right front foot, but the animal was fully ambulatory. As there were two other dairy cows on the trailer, I verbally notified Ms. Smith that no further unloading could occur until the gap hazard was corrected. Ms. Smith had the livestock hauler realign his truck and once no hazards were present, I allowed the other two dairy cows to be unloaded. The unloading of the other two animals went without incident. I verbally informed Ms. Smith of the forthcoming non-compliance record with regulations 9 CFR 313.1(b) (provide good footing) and 9 CFR 313.2(a) (driving with a minimum of excitement and discomfort).

HATS Category III – Water and Feed Availability (1 NR for Lack of Feed and 1 NR for Lack of Water)

At approximately 1140 hours while performing HATS Category III – Water and Feed Availability, I observed the following non-compliance: I noticed that pen 2, containing twenty head of market swine, had no visible feed in the pen. I observed truck unloading of this lot at approximately 0730 hours yesterday (2019-04-10). I asked Mr. Smith, Slaughter Supervisor, if the establishment had provided feed to the swine prior to my arrival today and he stated they had not. I verbally notified Ms. Smith, Establishment Owner of the forthcoming non-compliance record and that the animals had not been provided feed as required by regulation 9 CFR 313.2(e) as they had not been provided feed after being held for twenty-four hours. Ms. Smith immediately provided adequate feed to the twenty head of swine.

At approximately 0830 hours while performing HATS Category III – Water and Feed Availability, I observed the following non-compliance: I checked pens 2 and 3 and noted there were approximately six head of heifers without access to water. There were three black rubber round water bins present in the pens, but they did not contain any water. I verbally notified Mr. Smith, Slaughter Supervisor, that there was no water in pens 2 and 3 as required by regulation 9 CFR 313.2(e) and that I would be documenting my findings in a non-compliance record. Mr. Smith immediately filled the three rubber buckets with water.

HATS Category IV – Handling During Ante-mortem Inspection

At approximately 1000 hours while performing HATS Category IV – Handling During Ante-mortem Inspection, I observed the following non-compliance: I observed a dairy cow with a five-centimeter wound on her right rear flank that appeared fresh and was actively bleeding. Once all 5 head of dairy cows were removed from pen 5, I requested to review the pen. On the north side wall, I observed a rusted gate post with adhered hair and fresh blood. The edges of the rusted post were sharp when touched. The sharp edge was approximately two-meters off the ground, was approximately three-centimeter in length and matched the height of the wound on the dairy cow. I verbally notified Ms. Smith, Establishment Owner, of the non-compliance with regulation 9 CFR 313.1(a) with regards to poor pen maintenance that led to animal injury. Ms. Smith stated they would not be able to repair the pen immediately, so I placed U.S. Reject tag number B40682148 on the pen. I verbally notified Ms. Smith of the forthcoming non-compliance and the regulatory control action taken.

HATS Category V – Handling of Suspect and Disabled

At approximately 1445 hours while performing HATS Category IV – Handling During Ante-mortem Inspection I observed the following non-compliance with HATS Category V – Handling of Suspect and Disabled Animals: At approximately 1000 hours, Dr. Jones, Inspector-In-Charge had identified a U.S. Suspect (M-1234567) beef cow with back-tag number 41DL 2468. The establishment had separated the cow from other animals in pen 6 which was not a covered pen as required by regulation 9 CFR 313.1(c) and 313.2(d)(1). It was sunny, hot, (108 degrees Fahrenheit according to the establishment's outside thermometer) and humid. The cow was laying laterally on her right side, breathing irregularly, and her tongue was hanging out of her mouth. Dr. Jones was notified of the findings and requested that the establishment take the animal's temperature, which was 105 degrees Fahrenheit. Dr. Jones notified Mr. Smith, Barn Supervisor, of the findings and Mr. Smith elected to euthanize the animal. I observed the animal humanely euthanized and prior to removal from the pen, slashed and denatured. I had the establishment place U.S. Condemn tag number Z-7654321 in the animal's ear prior to removal and remove the U.S. Suspect tag. I verbally notified Mr. Smith of the forthcoming non-compliance record.

HATS Category VI – Electric Prod/Alternative Object Use

At approximately 1030 hours while performing HATS Category VI – Electric Prod/Alternative Object Use, I observed the following non-compliance: As I entered the pen area, I observed an establishment employee near the restrainer driving a sow with a hand-held battery powered electric prod. The sow was balking at the entrance to the restrainer and the employee shouted at the animal to move. When the animal would not move, the employee placed the electric prod on the rear of the animal and pushed the button four times in quick succession. The animal vocalized but did not move forward. The employee placed the electric prod on the rear of the animal again and pushed the button four times in quick succession. The animal again vocalized but did not move forward. The employee then used profane language and yelled at the animal to move forward and appeared to be in the process of using the electric prod again when I requested that he discontinue the use of the prod. I placed U.S. Reject tag number B19283746 on the restrainer and requested Ms. Smith, Slaughter Supervisor, come to the restrainer. I verbally notified Ms. Smith of my observations of non-compliance with regulation 9 CFR 313.2(b) and the excessive use of the electric prod on the sow. Ms. Smith had the employee driving hogs removed from the area. Ms. Smith identified and removed a white wash towel that had been draped over the front of the restrainer and requested that she try to move the sow forward into the restrainer.

After further verbal preventative measures were given, I removed by the regulatory control action and the sow was moved forward and humanely stunned without further incident. I verbally informed Ms. Smith of the forthcoming non-compliance record.

HATS Category VII – Observations for Slips and Falls

At approximately 0730 hours, while performing HATS Category VII –Observations for Slips and Falls, I observed the following non-compliance: An establishment employee was driving five steers from pen 2 to the holding pen. Three of the five steers were observed to slip and then fall after being moved around a right hand-turn between the pens. All three animals rose and appeared unharmed and continued to walk into the holding pen area. After the area was clear and safe to observe, I noted an area approximately two-meters in radius of ice and manure build-up at the area where the steers fell. I notified Mr. Smith, Slaughter Supervisor, of the ice and manure build-up and my observations of the movement of animals around the right-hand turn and tagged the alleyway prior to the holding pen with U.S. Reject tag number B66468123. Mr. Smith scraped the ice and manure away and added salt and hay to the area to improve footing and stated they would minimize the use of that area due to the sharp corner. After verbal preventative measures were given and the area verified as compliant, I removed the regulatory control action. I verbally notified Mr. Smith of the forthcoming non-compliance record in regard regulations 9 CFR 313.2(b) and 9 CFR 313.2(d).

HATS Category VIII – Stunning Effectiveness

At approximately 0915 hours, while observing HATS Category VIII – Stunning Effectiveness, I observed the following non-compliance: A stunning employee attempted to stun a lamb with a hand-held captive bolt device. The first attempt was ineffective as the lamb remained conscious. The lamb remained standing, was tracking the stunning employee with its eyes and moving its head away from the employee. The lamb vocalized immediately after the captive bolt contacted the head. There was a wound observed on the head of the lamb approximately three-centimeters above the half-way point between the eyes and blood was observed coming from its nose. The stunning employee immediately and effectively re-stunned the lamb with a pre-loaded hand-held captive bolt device resulting in an unconscious lamb. I placed U.S. Reject tag number B91827364 on the restrainer and verbally discussed my observations with Mr. Smith, Establishment Owner.

After Mr. Smith provided verbal preventative measures I removed the regulatory control action. I verbally informed Mr. Smith of the forthcoming non-compliance record and that the establishment failed to render the animal immediately unconscious with the first application of the stunner and failed to meet the regulatory requirements of 9 CFR 313.15(a)(1).

HATS Category IX – Check for Conscious Animals on the Rail

HATS Category IX non-compliance is due to animal(s) regaining consciousness which are egregious and would result in further enforcement action (NOS or a NOIE in lieu of a NOS).

GCP Poultry NR

At approximately 1530 hours, while performing a Good Commercial Practices verification task, I observed the following non-compliance with regulation 9 CFR Part 381.65(b): At 1530 hours, the inspector at Inspection Station number 1 identified five cadaver birds without a bleed cut on the neck. I presented the cadavers to Mr. Smith, Evisceration Supervisor and then preceded to the re-hang area and noted twenty cadavers on the re-hang table without a bleed cut on the neck and an additional fifteen cadavers in a U.S. Condemn barrel next to the re-hang table that did not have a bleed cut on the neck. I preceded to the area just prior to the scalding and noted five additional birds enter the scalding still breathing and conscious. These birds did not appear to have a neck cut. I then preceded to the kill line and found no back-up cutter present at the station located just past the automatic knife. Additionally, stunned birds were passing through the automatic knife cut without the neck being cut and some birds were passing above the blade not stunned. I requested that Mr. Smith immediately stop the kill line and placed U.S. Reject tag number B15759535 to the hanging area. Mr. Smith and additional supervisors adjusted the stunner and the automatic knife to ensure proper stunning and bleed cuts as well as added additional back-up employees after the automatic knife. Any birds prior to the scalding that were still conscious, breathing or did not have bleed cuts were cut and bleed out and returned to the line. Mr. Smith confirmed an additional forty cadavers were condemned per regulation 9 CFR Part 381.90. After corrective actions and preventative measures were reviewed, I removed the U.S. Reject tag from the hanging area and the line was allowed to restart.