

# Farm Animal Welfare · The HSUS

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# An HSUS Report: Human Health Implications of Live Hang of Chickens and Turkeys on Slaughterhouse Workers

#### **Abstract**

Poultry slaughterhouse workers perform one of the most dangerous jobs in the nation. Those on the "live hang" line, whose job is to hang conscious birds upside-down on moving shackles, are particularly at risk for developing occupational injuries and illnesses. Eliminating the live hanging of chickens and turkeys would improve both worker safety and animal welfare.

## **Background**

The work environment in slaughterhouses poses "risks greater than those faced by workers in many other manufacturing operations," according to the U.S. Government Accountability Office (GAO).¹ Human Rights Watch, the largest U.S.-based human rights organization,² characterizes slaughterhouse jobs as "the most dangerous factory jobs in the country."³ The U.S. Department of Labor's Bureau of Labor Statistics estimates that, as of 2005, approximately 132,000 people were employed as slaughterers and meat packers, earning a mean hourly wage of \$10.33.⁴

The most productive of these workers, measured in pounds of output per hour, are those employed at poultry slaughterhouses.<sup>5</sup> Yet "poultry workers' hourly earnings remain the lowest in the entire food industry and one of the lowest in manufacturing."<sup>6</sup>

According to the Occupational Safety and Health Administration (OSHA), over the past 30 years poultry slaughterhouse workers "have consistently suffered injuries and illnesses at a rate more than twice the national average." In 2004, nearly 20,000 poultry slaughterhouse workers reported occupational illnesses or injuries severe enough to warrant missing work or seeking medical care, resulting in the poultry processing industry having the sixth-highest rate of job-related illness and injury of any private industry that year.8

## Live Hang

Although the Humane Methods of Slaughter Act<sup>9</sup> requires animals to be rendered unconscious before they are shackled and killed, the U.S. Department of Agriculture does not interpret this legislation as extending to birds.<sup>10</sup> As a result, conscious birds are shackled upside-down before their throats are cut, a process referred to as "live hang."

According to a 2005 report by the GAO to the U.S. Senate, animals who "are still dying when they are hung on the line...may struggle and thrash about wildly." During live-hanging in poultry slaughter facilities, however, the birds are still alive and conscious. Thus, in addition to severely impairing animal welfare, live hang also jeopardizes the safety of the workers who have the "laborious, unpleasant and hazardous job" of "constantly and rapidly lift[ing] bunches of chickens...to overhead hooks to begin the slaughtering and disassembly process." <sup>13</sup>

## **Inadequate Lighting**

After birds have been dumped from their transport crates onto a conveyor belt in the slaughter facility, they are hung by their feet from metal shackles on an overhead conveyor.<sup>14</sup> This step in the slaughtering process is performed in near-total darkness in order to quiet the birds,<sup>15,16</sup> to "facilitate grasping and hanging them," and to reduce injuries to their bodies, which can result in carcass downgrades. The inadequate lighting in this area of the slaughterhouse contributes to a number of occupational hazards including cuts, slips, and falls. <sup>19</sup>

## **Responses from Conscious Birds**

Many of the health risks created by live hang result from workers having to invert still-conscious birds and shackle them on an overhead conveyor line. As workers attempt to hang the birds by their feet, the animals may scratch, peck, and bite, <sup>20,21,22</sup> and their flailing movements lead to high levels of dust in the live hang room. <sup>23,24,25</sup>

According to the International Labour Organization's Encyclopaedia of Occupational Health and Safety, the dangers present in the live hang room also include "suddenly sprayed urine or faeces in the face." A Human Rights Watch report echoes this description: "[A]s workers finally hoist the birds onto the hooks, the chickens urinate and defecate out of desperation, often hitting the workers below." <sup>27</sup>

If workers are cut or scratched by the birds, their wounds can easily become infected in these unsanitary conditions. Additionally, dust and mites from the birds' feathers can quickly become airborne in a dry, hot environment, putting workers at risk of developing both visual and respiratory ailments. According to OSHA, live hang workers get covered with poultry mess and dust that can expose them to diseases associated with handling live chickens and contact with poultry feces and dust, such as allergic alveolitis, cryptosporidiosis, histoplasmosis, hypersensitivity pneumonitis, psittacosis, and Newcastle disease."

#### **Line Speeds**

The Congressional Research Service reports that "for the past century, line speeds have been a constant worker complaint" among all slaughterhouse employees. Once removed from the transport crates, "chickens are flooding into a completely dark and uncomfortably warm [live hang] room at about 200 a minute." To keep up with a conveyor line that generally runs at a speed of 180 shackles per minute, 35 a single worker must typically hang at least 23 birds per minute. The rapid line speeds can result in shackles striking workers' hands, 37 and researchers at Wake Forest University School of Medicine found that rates for carpal tunnel syndrome and similar medical conditions due to fast, repetitive motion have been on the rise among poultry slaughterhouse workers despite their decline among other workers in manufacturing industries. 38

#### **Poor Ergonomics**

The design of the live hang area and nature of the work also pose risks. Live hang workers must continuously reach down approximately to waist level to grab birds from a moving conveyor belt and then hang each one's feet on an overhead shackle moving in the opposite direction.<sup>39,40</sup> One hazard of this system is the possibility of ensnaring a gloved finger in a moving shackle.<sup>41,42</sup> In addition, one researcher reported that the "fingers and knuckles of one eight-year-veteran I talked to were swollen to the point of being almost unrecognizable."<sup>43</sup>

Other hazards include the disorienting effect of keeping pace with high-speed conveyors running in opposite directions, 44,45 and "shoulder, back, and neck strain because of awkward postures and repetitive motion." Live hang also requires that workers stand for long periods of time on hard surfaces, which can lead to fatigue and pain in their lower back and legs. 47,48 This is exacerbated by the fact that the rubber boots typically worn by these workers provide little to no arch support. 49

The International Labour Organization notes that the "hanger's job is extremely stressful from both a physiological and psychological standpoint." Minimizing the bending and lifting required could improve performance and retention while decreasing medical claims. 51

## **Eliminating Live Hang**

An alternative method of slaughtering birds is controlled atmosphere killing (CAK). In CAK systems, live birds are kept in their transport crates after reaching the slaughterhouse. While still crated, they are passed through a chamber containing gas mixtures that, while not poisonous, cause the birds to die by anoxia.

CAK eliminates the dangers posed by live hang since the birds are already dead when they are hung on shackles for processing. For workers, this means more light and less noise and dust,<sup>52,53</sup> as well as an end to the hazards posed by inverting and shackling conscious birds.

MBA Poultry in Nebraska and Michigan Turkey Producers have begun using controlled atmosphere stunning (CAS), in which the birds are rendered unconscious before being shackled. As a result,

The MBA plant no longer has a dim, dusty hanging room. Instead the hanging area in the same room as the CAS system is well lit and relatively calm since the birds are already unconscious. The environment seems to be something MBA employees appreciate since turnover among hangers has dropped by at least 75 percent since the CAS system was installed.<sup>54</sup>

By using a mechanized loader in conjunction with a CAS system, the system employed by Michigan Turkey Producers ensures that "birds can be loaded at the farm and unloaded at the plant without being touched by human hands when the birds are conscious."55

## Conclusion

Eliminating live hang of conscious chickens and turkeys in slaughterhouses is critical for improving worker safety and animal welfare. Use of CAK or CAS systems enables workers to avoid the risks posed by live hanging.

#### References

- 1. U.S. Government Accountability Office. 2005. Workplace safety and health: safety in the meat and poultry industry, while improving, could be further strengthened. Report to the Ranking Minority Member, Committee on Health, Education, Labor, and Pensions, U.S. Senate. www.gao.gov/new.items/d0596.pdf. Accessed October 9, 2006.
- 2. Human Rights Watch. About HRW: Who we are, what we do. www.hrw.org/about/whoweare.html. Accessed February 20, 2007.
- 3. Compa L and Fellner J. 2005. Meatpacking's human toll. Washington Post, August 3. www.washingtonpost.com/wp-dyn/content/article/2005/08/02/AR2005080201936.html. Accessed October 9, 2006.
- 4. U.S. Department of Labor, Bureau of Labor Statistics. 2005. Occupational employment and wages, slaughterers and meat packers. May. www.bls.gov/oes/current/oes513023.htm. Accessed October 13, 2006.
- 5. Hall B. 1995. The kill line: facts of life, proposals for change. In: Stull DD, Broadway MJ, and Griffith DC (eds.), Any Way You Cut It: Meat Processing and Small-Town America (Lawrence, KS: University Press of Kansas, pp. 213-230).

- 6. Hetrick RL. 1994. Why did employment expand in poultry processing plants? U.S. Department of Labor, Bureau of Labor Statistics, Monthly Labor Review, June, pp. 31-4.
- 7. U.S. Department of Labor, Occupational Safety and Health Administration. Poultry Processing Industry eTool. www.osha.gov/SLTC/etools/poultry. Accessed November 11, 2005.
- 8. Quandt SA, Grzywacz JG, Marin A, et al. 2006. Illnesses and injuries reported by Latino poultry workers in Western North Carolina. American Journal of Industrial Medicine 49:343-51.
- 9. 7 U.S.C. §§ 1901 et seq.
- 10. U. S. Department of Agriculture, Food Safety and Inspection Service. Treatment of Live Poultry Before Slaughter, 70 Fed. Reg. 56624 (September 28, 2005).
- 11. U.S. Government Accountability Office. 2005. Workplace safety and health: safety in the meat and poultry industry, while improving, could be further strengthened. Report to the Ranking Minority Member, Committee on Health, Education, Labor, and Pensions, U.S. Senate. www.gao.gov/new.items/d0596.pdf. Accessed October 9, 2006.
- 12. Lee KM, Gogate R, and Carey R. 1998. Automated singulating system for transfer of live broilers. In: Proceedings of the 1998 Institute of Electrical and Electronics Engineers (IEEE) International Conference on Robotics and Automation (Leuven, Belgium, pp. 3356-61).
- 13. Human Rights Watch. 2004. Blood, sweat, and fear: workers' rights in U.S. meat and poultry plants. www.hrw.org/reports/2005/usa0105/usa0105.pdf. Accessed October 9, 2006.
- 14. U.S. Department of Labor, Occupational Safety and Health Administration. Poultry Processing Industry eTool. Receiving and Killing, Task 3: Live Hang. www.osha.gov/SLTC/etools/poultry/receiving/03\_live\_hang.html. Accessed November 11, 2005.
- 15. Ashdown T. 1998. Poultry processing. In: Stellman JM (ed.), International Labour Organization Encyclopaedia of Occupational Health and Safety, Fourth Edition (Geneva: International Labour Organization). www.ilo.org/encyclopaedia/?d&nd=857200050&prevDoc=857000685. Accessed October 12, 2006.
- 16. U.S. Department of Labor, Occupational Safety and Health Administration. Poultry Processing Industry eTool. Receiving and Killing, Task 3: Live Hang. www.osha.gov/SLTC/etools/poultry/receiving/03\_live\_hang.html. Accessed November 11, 2005.
- 17. Lee KM, Gogate R, and Carey R. 1998. Automated singulating system for transfer of live broilers. In: Proceedings of the 1998 Institute of Electrical and Electronics Engineers (IEEE) International Conference on Robotics and Automation (Leuven, Belgium, pp. 3356-61).
- 18. Sams AR. 2001. First processing: slaughter through chilling. In: Sams AR (ed.), Poultry Meat Processing (Boca Raton: CRC Press, pp. 19-34).
- 19. U.S. Department of Labor, Occupational Safety and Health Administration. Poultry Processing Industry eTool. Receiving and Killing, Task 3: Live Hang. www.osha.gov/SLTC/etools/poultry/receiving/ 03 live hang.html. Accessed November 11, 2005.
- 20. Linder M. 1995. I gave my employer a chicken that had no bone: joint firm-state responsibility for line-speed-related occupational injuries. Case Western Reserve Law Review 46:33-143.
- 21. Human Rights Watch. 2004. Blood, sweat, and fear: workers' rights in U.S. meat and poultry plants. www.hrw.org/reports/2005/usa0105/usa0105.pdf. Accessed October 9, 2006.
- 22. Ashdown T. 1998. Poultry processing. In: Stellman JM (ed.), International Labour Organization Encyclopaedia of Occupational Health and Safety, Fourth Edition (Geneva: International Labour Organization). www.ilo.org/encyclopaedia/?d&nd=857200050&prevDoc=857000685. Accessed October 12, 2006.
- 23. Ibid.
- 24. Lee KM, Gogate R, and Carey R. 1998. Automated singulating system for transfer of live broilers. In: Proceedings of the 1998 Institute of Electrical and Electronics Engineers (IEEE) International Conference on Robotics and Automation (Leuven, Belgium, pp. 3356-61).
- 25. Striffler S. 2002. Inside a poultry processing plant: an ethnographic portrait. Labor History 43(3):305-13.
- 26. Ashdown T. 1998. Poultry processing. In: Stellman JM (ed.), International Labour Organization Encyclopaedia of Occupational Health and Safety, Fourth Edition (Geneva: International Labour Organization). www.ilo.org/encyclopaedia/?d&nd=857200050&prevDoc=857000685. Accessed October 12, 2006.

- 27. Human Rights Watch. 2004. Blood, sweat, and fear: workers' rights in U.S. meat and poultry plants. www.hrw.org/reports/2005/usa0105/usa0105.pdf. Accessed October 9, 2006.
- 28. Lee KM, Gogate R, and Carey R. 1998. Automated singulating system for transfer of live broilers. In: Proceedings of the 1998 Institute of Electrical and Electronics Engineers (IEEE) International Conference on Robotics and Automation (Leuven, Belgium, pp. 3356-61).
- Ashdown T. 1998. Poultry processing. In: Stellman JM (ed.), International Labour Organization Encyclopaedia of Occupational Health and Safety, Fourth Edition (Geneva: International Labour Organization). www.ilo.org/encyclopaedia/?d&nd=857200050&prevDoc=857000685. Accessed October 12, 2006.
- 30. Lee KM, Gogate R, and Carey R. 1998. Automated singulating system for transfer of live broilers. In: Proceedings of the 1998 Institute of Electrical and Electronics Engineers (IEEE) International Conference on Robotics and Automation (Leuven, Belgium, pp. 3356-61).
- 31. Sams AR. 2001. First processing: slaughter through chilling. In: Sams AR (ed.), Poultry Meat Processing (Boca Raton: CRC Press, pp. 19-34).
- 32. U.S. Department of Labor, Occupational Safety and Health Administration. Poultry Processing Industry eTool. Receiving and Killing, Task 3: Live Hang. www.osha.gov/SLTC/etools/poultry/receiving/ 03\_live\_hang.html. Accessed November 11, 2005.
- 33. Whittaker WG. 2005. Labor practices in the meat packing and poultry processing industry: an overview. Congressional Research Service. www.nationalaglawcenter.org/assets/crs/RL33002.pdf. Accessed October 12, 2006.
- 34. Striffler S. 2002. Inside a poultry processing plant: an ethnographic portrait. Labor History 43(3):305-13.
- 35. Lee KM. 2001. Design criteria for developing an automated live-bird transfer system. Institute of Electrical and Electronics Engineers (IEEE) Transactions on Robotics and Automation 17(4):483-90.
- 36. Ashdown T. 1998. Poultry processing. In: Stellman JM (ed.), International Labour Organization Encyclopaedia of Occupational Health and Safety, Fourth Edition (Geneva: International Labour Organization). www.ilo.org/encyclopaedia/?d&nd=857200050&prevDoc=857000685. Accessed October 12, 2006.
- 37. Ibid
- 38. Quandt SA, Grzywacz JG, Burke B, et al. 2005. Occupational illnesses and injuries among Latino poultry workers in Western North Carolina. Wake Forest University School of Medicine, Department of Family and Community Medicine, Center for Latino Health Research.
- 39. Ashdown T. 1998. Poultry processing. In: Stellman JM (ed.), International Labour Organization Encyclopaedia of Occupational Health and Safety, Fourth Edition (Geneva: International Labour Organization). www.ilo.org/encyclopaedia/?d&nd=857200050&prevDoc=857000685. Accessed October 12, 2006.
- 40. Lee KM, Gogate R, and Carey R. 1998. Automated singulating system for transfer of live broilers. In: Proceedings of the 1998 Institute of Electrical and Electronics Engineers (IEEE) International Conference on Robotics and Automation (Leuven, Belgium, pp. 3356-61).
- 41. Ashdown T. 1998. Poultry processing. In: Stellman JM (ed.), International Labour Organization Encyclopaedia of Occupational Health and Safety, Fourth Edition (Geneva: International Labour Organization). www.ilo.org/encyclopaedia/?d&nd=857200050&prevDoc=857000685. Accessed October 12, 2006.
- 42. Lee KM, Gogate R, and Carey R. 1998. Automated singulating system for transfer of live broilers. In: Proceedings of the 1998 Institute of Electrical and Electronics Engineers (IEEE) International Conference on Robotics and Automation (Leuven, Belgium, pp. 3356-61).
- 43. Striffler S. 2005. Chicken: The Dangerous Transformation of America's Favorite Food (New Haven: Yale University Press).
- 44. Ashdown T. 1998. Poultry processing. In: Stellman JM (ed.), International Labour Organization Encyclopaedia of Occupational Health and Safety, Fourth Edition (Geneva: International Labour Organization). www.ilo.org/encyclopaedia/?d&nd=857200050&prevDoc=857000685. Accessed October 12, 2006.
- 45. Lee KM, Gogate R, and Carey R. 1998. Automated singulating system for transfer of live broilers. In: Proceedings of the 1998 Institute of Electrical and Electronics Engineers (IEEE) International Conference on Robotics and Automation (Leuven, Belgium, pp. 3356-61).

- 46. U.S. Department of Labor, Occupational Safety and Health Administration. Poultry Processing Industry eTool. Receiving and Killing, Task 3: Live Hang. www.osha.gov/SLTC/etools/poultry/receiving/03\_live\_hang.html. Accessed November 11, 2005.
- 47. Ibid.
- 48. Ashdown T. 1998. Poultry processing. In: Stellman JM (ed.), International Labour Organization Encyclopaedia of Occupational Health and Safety, Fourth Edition (Geneva: International Labour Organization). www.ilo.org/encyclopaedia/?d&nd=857200050&prevDoc=857000685. Accessed October 12, 2006.
- 49. U.S. Department of Labor, Occupational Safety and Health Administration. Poultry Processing Industry eTool. Receiving and Killing, Task 3: Live Hang. www.osha.gov/SLTC/etools/poultry/receiving/ 03 live hang.html. Accessed November 11, 2005.
- 50. Ashdown T. 1998. Poultry processing. In: Stellman JM (ed.), International Labour Organization Encyclopaedia of Occupational Health and Safety, Fourth Edition (Geneva: International Labour Organization). www.ilo.org/encyclopaedia/?d&nd=857200050&prevDoc=857000685. Accessed October 12, 2006.
- 51. Sams AR. 2001. First processing: slaughter through chilling. In: Sams AR (ed.), Poultry Meat Processing (Boca Raton: CRC Press, pp. 19-34).
- 52. Bagel A. 2005. Stunning results. Poultry, June-July, pp. 16-18.
- 53. Duncan IJH. 2001. Animal welfare issues in the poultry industry: is there a lesson to be learned? Journal of Applied Animal Welfare Science 4(3): 207-221.
- 54. Bagel A. 2005. Stunning results. Poultry, June-July, pp. 16-18.
- 55. O'Keefe T. 2006. MTP cooks its way to value. WATT Poultry USA, September, pp. 16-22.