



January 28, 2023

Panel on Humane Slaughter
American Veterinary Medical Association
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To whom it may concern,

We are members of the veterinary profession and include those working as veterinarians in general practice, livestock, welfare and shelter medicine.

We have reviewed footage provided by an activist with Direct Action Everywhere, taken at 3049 East Vernon Avenue, Vernon, California on October 3rd, 2022. The footage shows the use of a Butina paternoster CO₂ gas chamber from two different angles within the chamber, as well as the exterior of the chamber.

After reviewing the footage, we have determined that this method of stunning/killing is in violation of the Humane Slaughter Act and California laws regarding cruelty to animals. Title 9 § 313.5 (a)(1) states "The animals shall be exposed to the carbon dioxide gas in a way that will accomplish the anesthesia quickly and calmly, with a minimum of excitement and discomfort to the animals." After viewing several clips, it is clear that the animals are not calm prior to becoming unconscious, in fact they are quite anxious and distressed. In several clips, they begin moving around quickly in the gondola, climbing on top of each other, bumping into each other, falling down and then getting up again. They are seen gasping for air, a sign of air hunger which causes a great deal of fear in the pigs. There are numerous loud screams heard, and while it is sometimes unclear whether these screams are coming from inside the gondola or the pigs outside, or from pigs in a separate gondola, the noise indicates many are experiencing an unacceptable level of distress during the whole process.

According to renowned animal behaviorist Temple Grandin, PhD "From an animal welfare standpoint, the most important part of the process is the induction phase before the pigs fall over and lose the ability to stand." During this phase the clips show pigs scrambling, climbing on top of each other, vocalizing and likely causing physical harm to each other in their frantic desire to escape the gondola. Grandin states that "when escape attempts occur, the pig's welfare is not acceptable."

There are also concerns that the gondola is being overloaded. In some clips, pigs come to rest often laying on top of each other. According to Grandin "Specific signs of an overloaded machine are: (i) animals are not rendered insensible because the exposure time has been decreased by speeding up the conveyor; (ii) gondolas or containers are overloaded and pigs or birds do not have enough room to stand or lie down without being on top of each other. Pigs should never be forced to jump on top of other pigs when a gondola is being loaded."

Many researchers are becoming increasingly concerned about the welfare costs of using CO₂ stunning. The European Food Safety Authority (EFSA) published a report on June 17, 2020 that concluded "Exposure to CO₂ at high concentrations (defined in their opinion as higher than 80% by volume) is considered a serious welfare concern because it is highly aversive and causes pain, fear, and respiratory distress" and recommended replacing CO₂ with less aversive gas mixtures.

We know pain pathways are conserved across many species, and pigs are often used as a laboratory model to test the safety of chemicals and medications in humans. Therefore, we can assume their experience in response to a chemical is similar to ours. According to the AVMA Guidelines on Euthanasia "Humans report[ed] discomfort begins at 30% to 50% CO₂ and intensifies to overt pain with higher concentrations" and air hunger or the sensation of being starved of oxygen, "begins at concentrations as low as 8% and this sensation intensifies with higher concentrations, becoming severe at approximately 15%" (page 29).

There is also a genetic component to pigs' reactions to CO₂ gas, so that "one can conclude that CO₂ may be humane for certain genetic types of pigs and stressful to others. In order for CO₂ to be completely acceptable from a humane standpoint, pigs may need to be genetically selected for a good reaction to CO₂."

According to the Guidelines on Humane Euthanasia, "The genetic background of some pigs, especially excitable lines such as the Hampshire and German Landrace, has been associated with animals that react poorly to CO₂ stunning, while calmer lines combining the Yorkshire or Dutch Landrace conformations show much milder reactions." (page 29)

Researchers showed CO₂ is aversive to certain breeds of pigs, so much so, that they will avoid an environment with 90% CO₂ even after food is withheld. "Given a choice, Duroc and Large White pigs will tolerate 30% CO₂ to gain access to a food reward, but will forgo the reward to avoid exposure to 90% CO₂, even after a 24-hour period of food deprivation." (page 29)

According to their website, Smithfield produces pigs that are a mixture of Duroc, Landrace and Large Whites and selects for "traits that favor animal health, growth and other characteristics like a sow's nursing skills or a piglet's feeding abilities. They also look for traits related to meat quality, such as those that will result in the perfect amount of fat and marbling to meet consumer preferences." Smithfield does not indicate that they select for behavior traits such as calmness, that would create pigs that are amenable to CO₂ stunning. Grandin states, "The pork industry needs to address problems caused by genetic over selection for a single trait. Both PSE [pale, soft, exudative] meat and excitability have increased when pigs are selected for leanness and rapid growth. Breeders also need to select pigs for low levels of PSE and a calm temperament."

Knowledge of the genetic tendency of certain lines towards greater suffering in response to CO₂ has been described since 2008. Either addressing this fact has not been a priority for the company or genetic selection has failed. This current video footage of the welfare concerns, and extreme distress experienced by the pigs highlights the company's failure to comply with the Humane Slaughter Act and California law.

In addition, handling of animals outside the chamber shows violations of Title 9 § 313.5 (a) (2) which states "The driving or conveying of the animals to the carbon dioxide chamber shall be done with a minimum of excitement and discomfort to the animals. Delivery of calm animals to the anesthesia chamber is essential since the induction, or early phase, of anesthesia is less violent with docile animals." Footage shows animals frequently pushed into the gondola, sometimes falling onto their haunches, or falling down (eg. 4:40 time stamp of "Smithfield Gas Chamber - Brightened Key Clip 11") as they are pushed into the gondola. They are also exposed to the sound of screaming from other pigs nearby or in a separate gondola being killed. This noise is likely to cause discomfort and fear during the pre-stunning phase.

This clip shows the exterior of the gondola and the poor stockmanship by the worker. He hits the pigs purposelessly, closes the gate on top of one, sprays them with the water hose as they enter the gondola causing one to jump up and try to escape before the gate closes, the gate closes on the pig's head and it has to be re-opened to free the pig. He hits the pigs before the gate is open, needlessly causing excitement and anxiety when they have no place to go.

This [clip](#) (20221003_053152.mp4) also shows the exterior of the gondola. At 0:39 it shows the worker hitting the pigs with the paddle. It is unclear what the worker's goal is as there seems to be no intention to cause the pigs to move in any one particular desired direction, and the random use of the paddle is ineffective in directing the pigs. Again at the end of the clip (1:58) he hits the pigs with the paddle with seemingly no goal. The location and randomness with which the pigs are struck does not effectively communicate to the pigs which direction they should move in or how they should respond to avoid being struck again.

In addition to animal welfare, we must consider the welfare of the workers who endure long hours in a noisy environment moving pigs into a chamber that will ultimately cause pigs to react violently, screaming and scrambling within the gondola. This results in psychological distress to the workers. Studies show slaughterhouse workers face high rates of post-traumatic stress disorder and perpetration-induced traumatic stress, as well as anxiety and increased feelings of aggression when working on the kill floor. They often feel a need to disassociate and as a result face high levels of drug abuse and addiction, as well as [violent and sexual crimes](#).

This worker causing unnecessary pain to animals is a sign of the psychological toll of this environment. Injury to the brain or mind should be considered equally, if not more damaging to a person's quality of life than musculoskeletal injury.

According to the [AVMA's Guidelines on Humane Slaughter](#), the veterinarian's role "should consider whether 1) the procedure results in the best outcome for the animal, 2) their actions conform to acceptable standards of veterinary practice and are consistent with applicable federal, state, and local regulations, and 3) the choice of slaughter or euthanasia technique is consistent with her or his professional obligations and ethical commitment to society." (pg. 6) We do not believe the method of slaughter and stockmanship exhibited by the worker in this footage results in the best outcome for the animal, or the worker, and it is not consistent with federal regulations. Most people viewing this footage would have ethical concerns regarding the compromised welfare of these pigs as well as the workers involved.

- The AVMA Guidelines on Humane Slaughter state "a humane approach to the slaughter of any animal is warranted, justifiable, and expected by society. The overall goal should be to minimize or eliminate anxiety, pain, and distress prior to loss of consciousness. Therefore, both the induction of unconsciousness and handling prior to slaughter must be considered" adding that "Ideally, humane stunning and slaughter methods result in rapid loss of consciousness and the associated loss of brain function." (page 7)

Currently, this system does not meet these expectations.

We provide this statement in accordance with our oath as a veterinarian to use our “scientific knowledge and skills for the benefit of society through the protection of animal health and welfare, the prevention and relief of animal suffering...” and in accordance with the Principles of veterinary medical ethics of the AVMA which state “A veterinarian shall recognize a responsibility to participate in activities contributing to the improvement of the community and the betterment of public health...The responsibilities of the veterinary profession extend beyond individual patients and clients to society in general.

Veterinarians are encouraged to make their knowledge available to their communities and to provide their services for activities that protect public health.” The principles also state “A veterinarian shall respect the law and also recognize a responsibility to seek changes to laws and regulations which are contrary to the best interests of the patient and public health.”

Signed,

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