RSPCA.

March 2025

RSPCA Position: the use of high concentration Carbon Dioxide (CO_2) in the stunning/killing of pigs

SUMMARY

- **The RSPCA is deeply concerned about the use of high-concentration CO_2 for stunning/killing pigs due to its aversive effects**
- **Currently, 90% of pigs in the UK are killed using high-concentration CO_2; the RSPCA advocates for a rapid phase-out of this practice and a transition to more humane alternatives, such as inert gases like argon.**
- **Collaboration with industry stakeholders and the UK government is crucial for a successful transition.**
- **The RSPCA recommends legislative changes, and Government support for commercial trials of alternative methods and the retrofitting of existing systems.**

INTRODUCTION

The RSPCA has long held serious concerns regarding the use of high concentrations of carbon dioxide (CO_2) in the stunning and killing of pigs. For many years, there has been substantial awareness of pigs' aversion to CO_2 and acknowledgment that a transition to humane alternatives is needed, supported by evidence. Recent initiatives, such as the EU-funded PigStun project, which saw the successful retrofit of CO_2 chambers to use inert gases, makes such a transition increasingly feasible, bringing more humane alternatives closer than ever.

The RSPCA Farm Animals Department (FAD) has been actively involved in discussions and initiatives seeking an alternative to CO_2. This includes participation in the UK industry CO_2 Alternatives Working Group, the Pig Health and Welfare Council (PHWC), and various consultations and meetings with DEFRA, the Animal Welfare Committee (AWC) and other stakeholders. Further, the RSPCA wrote to DEFRA in both 2018 and 2024, formally requesting a legal prohibition of high-concentration CO_2 use and the development of humane alternatives.

RSPCA POSITION ON CO_2 STUNNING/KILLING

The RSPCA considers the use of high concentrations of CO_2 in pig slaughter an aversive practice that causes pain and distress to pigs prior to loss of consciousness. We advocate for a rapid phase-out of these systems and the development and implementation of more humane alternatives. While recognising that gas killing systems can offer some advantages over other methods, in particular related to handling, the use of high concentrations of CO_2 is unacceptable. In the UK, around 90% of pigs are killed using this method, highlighting the urgent need for change. Inert gases, like argon, present a potential for improved animal welfare due to their reduced aversive effects.

While electrical stunning is a method, when performed correctly, that can render pigs unconscious immediately, the RSPCA does not currently endorse automated electrical stunning systems for pigs. Automated electrical stunning can increase the need for individual handling and the process of moving pigs from a group to single file for restraint can be stressful. Also, this practice often involves the use of electric goads to encourage the pigs through the race into the system, which is not acceptable. Although there have been improvements made by organisations in Europe, more data is needed to fully assess the welfare implications of these systems.

The RSPCA is committed to phasing out the use of high concentrations of CO_2 as a stunning/killing method for pigs under its standards and actively awaits the development of a commercially viable alternative in the UK to

facilitate a humane transition. A collaborative approach, working closely with industry partners, is essential. Only through this cooperative effort can we truly ensure a meaningful and positive impact on pig welfare across the UK.

FUTURE ACTIVITY

The RSPCA is actively planning for a transition away from the use of high concentration CO_2 use in the stunning/killing of pigs under its standards. In April 2025, FAD will attend the final PigStun workshop, where the results of the research will be presented. A visit to the Netherlands to observe new electrical stunning designs and improved handling in abattoirs, is also planned. Throughout 2025, FAD will continue to meet with retailers and pig processors to discuss moving away from CO_2 use.

RECOMMENDATIONS

The RSPCA strongly recommends the following actions:

- Government to set a phase-out date for high-concentration CO_2 systems, as market forces alone are, and have been, insufficient to drive change quickly enough.
- The Welfare of Animals at the Time of Killing (England) Regulations 2015, be amended to permit bleeding as the primary killing method when using gas, as currently legislation requires the gas to kill the pigs, which inhibits the use of other gases due to much longer exposure times.
- Government support for retrofitting existing chambers with alternative gases, such as argon. Given that only a small number of UK slaughterhouses use high-concentration CO_2, this is a feasible solution that DEFRA should spearhead.
- Industry and retailers to take the lead in trialling retrofitting existing chambers with alternative gases such as argon.
- A comprehensive approach to improving pig welfare at slaughter is needed, involving well-designed facilities, trained staff, gentle handling, and effective stunning followed by swift bleeding. Emerging scientific evidence from Europe presents promising electrical stunning alternatives that DEFRA should proactively explore and pilot, in relation to the construction of new slaughterhouses.

CONCLUSION

The RSPCA is committed to improving pig welfare and believes that phasing out the use of high-concentration CO_2 for stunning/killing is a critical step towards better safeguarding the welfare of pigs at the time of slaughter. The RSPCA will continue to work with industry stakeholders, researchers, and policymakers to achieve this goal and ensure the development and adoption of humane alternatives. A more humane method than high concentration CO_2 is urgently required to reduce the annual suffering of millions of pigs. The RSPCA advocates for two potential strategies: (i) retrofitting existing CO_2 chambers to allow for the use of less aversive inert gases, such as argon or (ii) constructing new, purpose-built slaughterhouses with humane alternatives.