

# NPA BRIEFING



**Date:** 29<sup>th</sup> January 2015  
**Contact:** Zoe Davies  
**Telephone:** 07814448956

## NPA briefing note on stunning of pigs for slaughter with carbon dioxide

### Issue:

Compassion in World Farming are calling for the European Commission to set a date for phasing out CO<sub>2</sub> gas stunning of pigs at slaughter.

### Background:

- The legislation covering the welfare of all farmed animals within the UK during the handling and slaughter process is EC1099/2009 <sup>[1]</sup>, which permits stunning by electrical shock and by exposure to carbon dioxide.
- These actions render the animals unconsciousness before they are killed in preparation for processing.
- In the UK, both of these processes are used. Carbon dioxide stunning is used mostly by abattoirs that have a high-throughput of animals.
- Regulation EC 1099/2009 states that for pigs, the minimum concentration to be used when stunning is 80% CO<sub>2</sub>. This high concentration is required to ensure loss of consciousness is rapid and hence as humane as possible.
- It is a legal requirement that no more than 30 seconds must elapse after a pig has entered the stunning chamber before it is in a gas concentration of 80% or more.
- It is also a legal requirement to have clearly visible and audible alarms to monitor the gas concentration.
- The majority of the large abattoirs slaughtering pigs in the UK are assured by British Quality Assured Pork (BQAP) standards for meat processing. BQAP abattoirs are responsible for 92% of pigs slaughtered in the UK. These standards require that when CO<sub>2</sub> is used for stunning, the time from stun to sticking must not exceed 75 seconds to ensure pigs do not regain consciousness <sup>[1]</sup>.
- Abattoirs adhering to BQAP standards must appoint a trained Animal Welfare Officer to be responsible for overseeing the unloading, carriage and passage of pigs to the point of slaughter <sup>[1]</sup>.
- In addition, from March 2015 a new requirement of the BQAP standards will be for abattoirs participating in the assurance scheme to have CCTV systems to monitor all activities from unloading to slaughter which may affect animal welfare.
- As with many gas killing systems, carbon dioxide partly acts by displacing oxygen so the brain cannot function and brain death ensues. However, carbon dioxide also has a direct anaesthetic effect which results in loss of consciousness more quickly than with some other low oxygen gas mixtures such as argon and nitrogen mixtures <sup>[2]</sup>.
- In addition, CO<sub>2</sub> gas stunning of pigs has some welfare benefits. For example,

there is reduced risk of potential human error,  
animals stay in groups,  
modern gas systems enable improved handling of pigs, through use of automatic gates, which reduces the need for staff intervention and reduces stress

- Staff working in abattoirs are required to be able to recognise both an effective and ineffective stun/kill and know how to react quickly in the case of the latter.

**NPA position:**

- Gas stunning of pigs with high concentration carbon dioxide is a legally permitted method of inducing loss of consciousness prior to slaughter and currently represents a best available practice, when operated correctly and monitored carefully.
- The high concentration of CO<sub>2</sub> used in gas killing is necessary for a fast and effective stun; lower concentrations would likely make the process more stressful for the pigs.
- Gas stunning operations are monitored very carefully in abattoirs utilising this method to ensure the welfare of the pigs is protected.
- There is ongoing research into ideal gas combinations to identify best practice in gas stunning.
- Although Compassion in World Farming are urgently calling for phasing out of gas stunning and implementation of “better” methods, they have failed to provide examples of any viable alternatives.
- Gas stunning actually has some welfare benefits notably that the pigs are kept in groups and that less staff intervention is required, especially when automatic gates are employed.

**References**

[1] [http://ec.europa.eu/food/animal/welfare/slaughter/regulation\\_1099\\_2009\\_en.pdf](http://ec.europa.eu/food/animal/welfare/slaughter/regulation_1099_2009_en.pdf)

[2] [http://www.bmpa.uk.com/\\_attachments/Resources/2670\\_S4.pdf](http://www.bmpa.uk.com/_attachments/Resources/2670_S4.pdf)

[3] <http://www.hsa.org.uk/downloads/technical-notes/TN19-carbon-dioxide-pigs-HSA.pdf>

END