Death inside gas chambers

Every year over 300,000 minks are killed on fur farms in Spain. Asphyxiated in gas boxes, their end is as tragic as their lives.

Most of the minks raised on fur farms are killed each year between November and December. However, males used for breeding, and females who have not mated, are killed in March. Their bodies will be frozen until winter, when they will be skinned. Given the need for farmers to kill animals on a massive scale, the most common method used is suffocation, due to the inhalation of carbon monoxide (CO) or carbon dioxide (CO2), either individually or in groups.

Section 8 of the report, The Welfare of Animals Kept for Fur Production [11], states:

"All killing methods involve moving progressively along a shed, removing selected animals from their cages. As with weaning etc., this usually causes both handled and non-handled mink to vocalize, and at least in
nervous strains is probably a source of short-term stress to both the euthanised mink and their unpelted shed-mates. Where a gaseous euthanising method is used, the chamber/cart itself may also be a source of disturbance.

When mink are killed by gas in a killing box, 30 - 50 animals may be placed in there, depending on box-size (DAFF 2007). Unless unconsciousness is instantaneous, the overcrowding and subsequent suffocation is likely to be an extremely stressful experience for the minks. Due to the sheer number of animals crammed inside the killing box, humidity and other factors, the carbon monoxide or carbon dioxide gas is not distributed uniformly inside. Workers from fur farms state that it is common practice to skin fully conscious minks, as they have not died during the gassing process.

The use of gas in killing boxes is additionally problematic because of the minks' natural semi-aquatic lifestyle. These animals have specific adaptations for swimming and diving and, therefore, the ability to hold their breath for longer periods of time than terrestrial animals. Minks also detect, and respond to the effects of, hypoxia (low levels of O2 in blood) [17]. They show strong escape behaviours [1] when exposed to gases. Researchers, Stephenson, Butler, Dunstone, and Woakes reported
a marked bradycardia in minks during a dive and concluded it was the result of physiological adaptations to conserve oxygen [18]. They also reported a fear-induced bradycardia.

Carbon monoxide is a highly toxic gas that replaces oxygen in the blood hemoglobin, reducing the transport of oxygen throughout the body and causing the resulting lack of oxygen. Another effect is the expansion of blood vessels which causes bleeding. At high concentrations, the animal loses consciousness, and suffers muscle spasms and cramps as a result of the activity in the motor center of the brain that is stimulated by the carbon monoxide. Partial paralysis occurs as a result of bleeding in the brain [2]. When high concentrations of carbon monoxide are used, minks collapse after approximately one minute. The respiratory system stops working after approximately two minutes and after approximately 5 to 7 minutes, the heart stops beating.

Carbon dioxide is a gas that forms H2CO2 acid when combined with fluids of the respiratory system. This acid is highly irritating and causes great discomfort. Pulmonary edema and bleeding in the lungs [3] take place prior to loss of consciousness, regardless of whether only carbon dioxide or a mixture of carbon dioxide and oxygen is used. Several scientific studies have demonstrated the high rejection that mink
have of CO2 [1,5,6]. Avoidance studies have provided evidence to suggest that animals unable to escape from an environment containing carbon dioxide, experience stress and pain before the loss of consciousness [12,13,14,15]. CO2, as well as CO replaces oxygen in hemoglobin [2].

Research has demonstrated that a wide range of species find concentrations of more than 30% of carbon dioxide extremely unpleasant. They become noticeably distressed and exhibit escape behaviours [1,4,5,6,7,8]. Experiments using 70% carbon dioxide have revealed that minks take at least 15 minutes to lose consciousness [9].

In Spain it is legal and habitual to use exhaust gases from a tractor or feeding machine on mink farms. Due to the heat of the exhaust gases and the presence of pollutants, filtered exhaust gases induce unconsciousness more slowly than pure CO, and it is preceded by excitation and convulsions. Lambooy (1984) observed the behaviour of minks killed using combustion gases as carried out on farms [16]:

"When animals are stuck in the box and forced to inhale the combustion gases, they become extremely excited and have seizures during 12 (+/- 6) seconds. These seizures begin at 23 (+/-
5) seconds after placing the animals in the box."

The European Food Safety Authority dissociates itself from the use of carbon monoxide and carbon dioxide as a method of killing, and the European Commission also discourages the use of carbon dioxide [10]. Dutch law prohibits any such use of carbon dioxide. A report by the EC Working Party on Animals in Laboratories does not recommend the use of carbon dioxide and carbon monoxide for carnivores, because of the stress it causes.
Photos (from left to right and top to bottom):
1) Operator forcibly removing a mink.
2) Throwing a mink violently into the box.
3) Opening the gas valve to sphyxiate the minks.
4) Operators removing dead minks from the box.
5) Operator loading a trailer with the corpses.
6) Warehouse where the dead minks are kept.
References

3. REVIEW OF COUNCIL DIRECTIVE 93/119/EC. 2008. On the protection of animals at the time of slaughter or killing. Respect for animals and Humane society international (UK).
