

Welfare Advisory Note 2: Use of Non-Penetrative Captive Bolt Device as a stun/kill method for kids, lambs and piglets.

The Statutory Instrument (SI), [The Protection of Animals at the Time of Killing \(Amendment\) \(England\) Regulations 2022](#) has come into force on the 3rd February 2022.

This applies only to England and has been introduced to provide an alternative method of culling on-farm that is practical and humane for piglets, lambs and kids. Before this SI, a non-penetrative captive bolt device (NPCB) was only permitted for simple stunning of kids and lambs under 10kg for slaughter, which means that a killing method was required in addition.

There is sufficient scientific evidence that NPCB can be used as an effective killing method for piglets, lambs and kids. (See [Explanatory Memorandum](#) accompanying this SI for more details).

The SI now allows the use of NPCB as a stun/kill method for killing the following categories of animals when using a NPCB delivering the minimum kinetic energy shown in brackets:

- piglets of less than 10kg live weight (27.7J)
- lambs of less than 6kg live weight (107J)
- kids of less than 4kg live weight (27.8J)

Table 1 Changes arising from the SI (changes shown in red)

Use of NPCB	Current situation		Changes from 4.2.22 (in red)		
Species	Ruminants, poultry, rabbits/hares		Ruminants, poultry, rabbits/hares and piglets		Min kinetic energy
For slaughter	Ruminants <10kg poultry, rabbits/hares	Simple stun	Ruminants <10kg	Simple stun	
			poultry, rabbits/hares		
			piglets<10 kg	Stun/kill	27.7J
			lambs<6 kg	Stun/kill	107J
			kids<4 kg	Stun/kill	27.8J
Depopulation and other situations	Poultry, rabbits/hares	Simple stun	Poultry, rabbits/hares	Simple stun	
			lambs <10kg, kids<10kg	Simple stun	
			Piglets<10kg	Stun/kill	27.7J
			lambs <6kg	Stun/kill	107J
			kids<4kg	Stun/kill	27.8J

Examples of NPCB currently available

Discussions are ongoing with NPCB manufacturers to ensure that accurate kinetic energy values are available in their instructions to users. This is mandatory before NPCB can be used and assessed in a WS19 WATOK application for stun/kill. Details for products available from two manufacturers are shown below.

Frontmatec/Accles and Shelvoke	Type of cartridge /	kinetic energy Joules (J)
Cash Small Animal Stunner	.22 calibre brown 1-grain(G) cartridge	46J
	.22 calibre pink 1.25 G	107J
Cash Special Concussion	.22 calibre brown 1 G	76J
	.22 calibre pink 1.25 G	133J
	.22 calibre purple 2.5 G	180J
BOCK Industries		
Zephyr EXL	BOCK lists that this can be used on piglets	28J
TED	BOCK lists that this can be used on goats	29J

Table 2 NPCB available from Frontmatec/Accles and Shelvoke and Bock Industries showing kinetic energy produced (in red)

Information Document and link from HSA/UoB

A HSA information document explaining the use of the NPCB on neonates has been produced by HSA/ University of Bristol and is available on: [On-farm-humane-killing-of-neonate-pigs-sheep-and-goats.pdf \(hsa.org.uk\)](#).

This document has specific links to YouTube videos showing the correct procedure to follow to stun/kill [lambs](#), [kids](#) and [piglets](#). HSA are in the process of updating this document following the above SI, as it currently refers to using these devices for emergency killing only. The applicant for a WATOK licence would be expected to have knowledge of this or similar guidance.

Bock Industries have further videos on their [website](#) demonstrating how their devices should be used e.g. [Video Zephyr-EXL \(piglets\)](#), and a [Slide Presentation](#) from the University of Bristol.

DEFRA has been communicating with the sheep, goat and pig industry on the development of this SI and the industry is expected to cascade relevant practical information to their members.

WATOK licence Assessment

APHA inspectors must be familiar with the relevant information in this and related documents, and updated legislation, to ensure that applications for NPCB are effectively assessed. There are several particularly important parameters that need to be adhered to, to ensure an effective stun/kill. These are the use of only a NPCB device that delivers the legally specified minimum kinetic energy, the correct restraint position of the animals and position of the NPCB, and weight limits of animals that can be killed using this process. For example, when used in piglets the head must be supported on a hard surface for maximum energy transfer to the skull. For kids /lambs, the NPCB must be applied behind the poll, between the ears, with the neck bent and the chin touching the chest (HSA/UoB document). Applicants must be able to demonstrate that they can carry out effectively all the procedures associated with stunning on the category of animal(s) applied for.

Operational Manual update

WS19 and WS15 have been updated to reflect this SI change and will be added to the Operational Manual shortly (other documents will be updated in due course).

WS19 update will now include an additional category 12a

Reference	Cattle A	Calves V	Horses	Sheep & Goats	Pigs	Large Game
12 non-penetrative captive bolt device. Simple Stun Only	N/A	less than 10 Kg	N/A	less than 10 Kg	N/A	less than 10 Kg
12a non-penetrative captive bolt device. England only 2022 amendment STUN (KILL).	N/A	N/A	N/A	Lambs less than 6kg, kids less than 4 kg	Piglets less than 10kg	N/A

'Up to' term previously used means the same as 'less than' in this context i.e., NCPB can be used for animals that are less than but not equal to the stated figures of 10, 6, and 4 kg.

Monitoring use of NPCB

As per [Operational Manual](#), a WATOK Compliance Report (WS05) is required for each assessment visit for a WATOK licence application to check compliance with WATOK during the assessment.

The use of NPCB must be carefully monitored during such assessments. Concerns have been expressed about failure in the use of NCPB in some cases to stun/kill some piglets. Any inspectors recording failure to stun/kill on a first attempt when the correct power of NCPB is used, the device is properly maintained, properly positioned and applied for the correct weight of the animal, should report this failure immediately to Veterinary Advice Service for Welfare (adviceserviceswelfarevas@apha.gov.uk). This failure should be detailed in the WS05 that is completed for all WATOK licence assessments. When there has been a failure in the NCPB to effectively stun/kill, please send the WS05 to Veterinary Advice Services for Welfare, in addition to the usual CSC mailbox. DEFRA are closely monitoring this situation and are in communication with the industry to ensure that NPCB can be effectively used within the legal parameters stated.

WATOK licences issued in 2022 that include the new 12a category will be followed up after a period of time to assess the effectiveness in the use of this method.

Further information

If you have any questions about this SI, please discuss with the usual field veterinary advisers/KF leads and cascade to Joe Anzuino any issues that cannot be resolved at a local level.