



Preventing Pentobarbital Residues August 2019

The rendering industry requests veterinarians' help

The Food and Drug Administration (FDA) has determined that:

- Pentobarbital is a hazard in ingredients fed to pets and other animals.
- Animals euthanized with pentobarbital cannot be used to make animal food.

Because the FDA has not established a tolerance for pentobarbital, animal proteins (such as meat and bone meal) and animal fats tested and found to have detectable levels of pentobarbital present cannot be used in food for any animal. This means that animals euthanized with pentobarbital cannot be rendered.

Non-chemical forms of euthanasia must be used if animals are to be rendered. Renderers request your assistance to ensure that rendering remains a viable disposal option for animal mortalities, including livestock that must be euthanized.

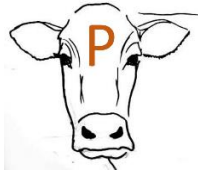
What can you do?

Using pentobarbital for animal euthanasia is a problem because renderers cannot distinguish animals that died by chemical euthanasia from those that died from other causes. **We ask that you use other means to euthanize livestock, such as captive bolt or gunshot.**

In some cases, it may be necessary to use pentobarbital. In such cases:

- Please clearly communicate, preferably in writing, that rendering is not an option to dispose of the carcass with your client.
- Calling the rendering plant that services the client's farm or operation to notify the dispatcher of the farm and type of animal euthanized with pentobarbital would also be helpful.
- Most important, an established method for permanently marking animals euthanized with pentobarbital will provide a means for renderers to identify animal remains that cannot be rendered from those that can and should be. Any such identification method must stay with the carcass, not easily removed or lost, consistently applied within a state or region and the use and meaning of the marking communicated to all renderers operating in the area.

Ear tags can be easily removed or lost which makes them unacceptable for identifying animals given pentobarbital. Therefore, the preferred method for identifying pentobarbital-euthanized livestock and other large animals is by **prominently marking the head with a large "P" using fluorescent orange colored "All-Weather Paintstik"** (see figure 1).



A solvent based fluorescent orange spray paint, such as Krylon Contractor Marking Paint, may be an acceptable alternative to using Paintstik, so long as the paint will stay on the hide and is not easily washed off or removed.

Why is rendering animals euthanized with pentobarbital an issue now?

Historically, horses and other livestock euthanized with pentobarbital or other barbiturates were rendered. This practice was allowed because FDA data indicated animal proteins and fats derived from rendering euthanized animals mixed with other animal byproducts were safe to use in animal food. However, the FDA changed its thinking about pentobarbital because canned pet foods made with meat harvested from euthanized livestock was thought to be the cause of death for several dogs. The tainted pet food contained meat/organs harvested from 3-D/4-D cattle that *had not been rendered*. Even though no rendered products were implicated in the death of these pets, the FDA banned any detectable amount of pentobarbital in any food for pets and other animals. The scope of this ban means that animals euthanized with pentobarbital can no longer be rendered. The detection limit of the method FDA uses to test for pentobarbital is so low (10 ppb) that rendering one euthanized cow or horse of average size could contaminate an entire day's production of finished animal fat and proteins with detectable levels of the drug.

Why are we concerned?

Rendered products, such as meat and bone meal and tallow, are frequently used as ingredients in nutritionally balanced foods manufactured for livestock, poultry and companion animals to consume. The rendering industry is dedicated to food safety and is subject to regulations enforced by the FDA, including regulations under the Food Safety Modernization Act (21 CFR Part 507).

Why is it important to permanently identify animals euthanized with pentobarbital or use other methods for euthanasia?

The rendering process does not inactivate or destroy some chemical hazards, including pentobarbital. Renderers must either prevent such hazards from entering a rendering plant or test for chemical hazards and make sure contaminated product is sold for non-feed uses. Such test and positive release programs work for rendered fats but are not feasible for animal proteins because of lack of storage space. Therefore, renderers must exclude materials likely to contain the chemical hazard. Horses are considered a high risk for pentobarbital because they are often considered pets and it is difficult to determine if a horse was euthanized with pentobarbital or died from other causes. As a result, most renderers have stopped

processing horses. The remaining challenge then is to avoid rendering other sources of pentobarbital, including some dairy cattle and livestock from “hobby” farms.

If the rendering industry is not able to establish adequate procedures and safeguards to prevent pentobarbital residues in finished rendered products, we may have to make further changes or curtail animal mortality collection to comply with FDA guidance and regulations.

Why is it important to render animal mortalities?

Rendering is the preferred method for handling animal by-products and mortalities. The cooking process used to evaporate water and facilitate separation of the fat and protein rich solids is validated to kill conventional pathogens, such as bacteria and viruses. The finished products are stable, microbiologically safe animal food and can be stored. Rendered fats have many uses, including to provide energy in animal food and non-feed uses such as feedstock to make biofuels. Rendered proteins, however, are used primarily as sources of protein and other nutrients in animal foods or as organic fertilizers for food crops. The rendering industry contributes to sustainability by recycling water and essential nutrients, capturing carbon to reduce greenhouse gas emissions, and helps to protect the environment and the health of humans and animals.

The U.S. Fish and Wildlife Service (FWS) published the FWS Fact Sheet ***Secondary Pentobarbital Poisoning of Wildlife*** (<https://www.fws.gov/mountain-prairie/poison.pdf>) which discussed reports from 16 states where bald and golden eagles, other wildlife and domestic dogs died after scavenging pentobarbital-euthanized animals. FWS concluded that pentobarbital-euthanized carcasses should not be rendered, nor should they be disposed of where wild and other animals can access the carcass. To prevent instances of secondary poisoning, only deep burial, incineration or landfills able to quickly cover carcasses should be considered. Most composting options and certainly abandonment should not be viable options. **In some cases, livestock owners and veterinarians causing such unintentional poisonings may be held liable and subject to fines and/or criminal prosecution under the *Migratory Bird Treaty Act, The Bald and Golden Eagle Protection Act or The Endangered Species Act.***

The rendering industry believes its role in collecting and processing animal mortalities is an important biosecurity function and appreciates your assistance in helping address this complex issue so that we can continue providing livestock mortality collection services.

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