

The collection and processing of animal waste in the Flemish Region

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Abstract

Responsibility for waste materials since the 1980 Belgian State reforms has been a regional matter and is vested for the Flemish Region in the OVAM (Openbare Afvalstoffenmaatschappij voor het Vlaamse gewest - Public Waste Company for the Flemish Region). The collection and processing of animal waste is governed by the order of the Flemish government of 24 May 1995. The carcasses of the sperm whales, stranded on the coast of Belgium in 1994, were processed into animal feed in a processing facility, approved for animal waste. They were initially regarded as low-risk material. However, it was subsequently found that hazardous materials were present in the tissues of the sperm whales, so that high-risk material was involved. Processing the sperm whale into animal feed was viewed afterwards, owing to the presence of residues and because of the problems that arose at the knacker's yard, as not being the appropriate method of disposal. Alternative options for disposal were incineration or burial. Incineration was not possible in the Flemish region because there was no incinerator capable for incinerating such amount of animal waste. Burial is the best alternative and disposal in a class II landfill is another option; land-filling can be viewed as a controlled form of burial. Difficulties always arise with class II landfills (for household waste), however, because their licence does not provide for animal waste. Co-ordination between the various official organisations is necessary in an urgent situation such as arose in the stranding of the sperm whales in 1994, so that a good solution can be found as quickly as possible for the disposal of the animal waste.

Keywords: sperm whale, stranding, waste, landfill, incineration, hazardous substances, knacker's yard, animal feed.

Résumé

Depuis la réforme de l'Etat belge en 1980 la gestion des déchets est une compétence régionale. Pour la Région flamande cette compétence a été attribuée à l'OVAM (Openbare Afvalstoffenmaatschappij voor het Vlaamse gewest - Société publique des déchets pour la Région flamande). La récolte et le traitement des déchets animaux sont régis par le décret du gouvernement flamand du 24 mai 1995. Les cadavres des cachalots qui se sont échoués à la côte belge en 1994 furent transformés en aliments pour animaux dans un clos d'équarrissage agréé pour le traitement des déchets animaux. Initialement, on les considéra comme des substances à bas risque mais par la suite on découvrit la présence de substances dangereuses dans les tissus des cachalots, de sorte que des substances à haut risque étaient impliquées. A posteriori, en raison de la présence de résidus et en raison des problèmes qui surgirent au clos d'équarrissage, on dû considérer que la transformation des cachalots en aliments pour animaux n'était pas la méthode d'élimination appropriée. Les autres possibilités étaient l'incinération et l'inhumation. L'incinération n'était pas possible en Région flamande parce qu'aucun incinérateur n'était capable d'y traiter une telle quantité de déchets animaux. L'inhumation est la meilleure solution et l'élimination dans une décharge de classe II en est une autre: le déversement dans une

décharge publique peut être considéré comme une sorte d'inhumation contrôlée. Cependant, on rencontre toujours des difficultés dans les décharges de classe II (pour déchets ménagers) parce que les licences accordées à ces établissements ne prévoient pas les déchets animaux. En situation d'urgence, comme ce fut le cas lors de l'échouage des cachalots en 1994, une coordination entre les différentes instances officielles est nécessaire pour qu'une solution convenable puisse être dégagée le plus rapidement possible pour l'élimination des déchets animaux.

Mots-clés: cachalots, échouage, déchets, décharge, incinération, substances dangereuses, équarrissage, aliments animaux.

Introduction

The purpose of this paper is to consider the methods of disposal for animal waste in the Flemish region and specifically the disposal of the sperm whales which washed ashore at Koksijde and Nieuwpoort in November 1994.

Legislation on animal waste

Prior to 1989, responsibility for the collection and processing of animal waste was exercised by the Ministry of Agriculture, under:

- the Regency Decree of 24 January 1946 (amended by Royal Decree of 29 December 1970, 1 July 1976 and 2 December 1986)
- the Animal Health Act of 24 March 1987.

This was a federal power, applicable to the whole of Belgium.

There has nevertheless been a dispute, since the 1980 State reforms over powers between the Ministry of Agriculture and the Regions, because the Regions were empowered to deal with waste. On 31 January 1989, at the request of the Walloon Region, a partial annulment was obtained before the Court of Arbitration of the Animal Health Act, Sections 13 and 14, because these sections are concerned with waste materials, and power in relation to waste materials has been vested in the regions under Article 7 of the Constitution. EC Council Directive 90/667/EEC was issued on 27 November 1990, establish-

ing health regulations for the disposal and processing of animal waste, the placing of animal waste on the market and prevention of the presence of pathogens in animal feeds of animal origin (including fish), and amending Directive 90/245/EEC. Both the Ministry of Agriculture and the Regions have drawn up legislation pursuant to this Directive.

The Ministry of Agriculture drew up a royal decree, the Royal Decree of 16 December 1992. This Royal Decree was suspended by the Council of State on 27 July 1993, at the request of the Flemish Region, and annulled on 6 March 1995.

The Flemish Region drew up legislation, the Order of the Flemish government of 23 June 1993 concerning the collection and processing of animal waste. The disposal of the sperm whale in November 1994 was based on this order. This order of 1993 was meanwhile suspended by the Council of State at the request of the federal government, but a new Animal Waste Order was approved on 24 May 1995, by which the 1993 Order was annulled.

The Brussels and Walloon Regions also have their own legislation on animal waste. The Walloon Region's legislation dates from 21 October 1993, and is concerned with high-risk and low-risk material. The legislation of the Brussels Region dates from 15 July 1993 and is concerned solely with high-risk material.

Methods of disposal of animal waste

The prescribed method of disposing of animal waste is determined by the nature of the waste. A distinction is made between low-risk material and high-risk material:

- Section 2 of the above-mentioned Order defines high-risk material.

- Section 3 of the Animal Waste Order of 24 May 1995 defines low-risk material, as animal waste which does not come under Section 2 with regard to high-risk material and which does not pose a risk of the spread of diseases transmissible to man or animals.

The animal waste must normally be collected and processed in a recognised plant for the processing of high and low-risk material. High-risk material must always be processed in a processing plant for high-risk material recognised for this purpose: the firm of Animalia Produkten in Denderleeuw is recognised in the Flemish region for the collection and processing of high-risk material. Low-risk material must be processed in a recognised processing plant for low or high-risk material, in a facility where either pet food or technical or pharmaceutical products are manufactured. A number of firms in the Flemish region are also licensed for the processing of low-risk material in addition to Animalia. In special cases, animal waste – both high and low-risk material – following a decision by the supervisory official, may also be disposed of by incineration or burial, for example if there is a risk to public health, or if they contain residues which can harm human or animal health and which are resistant to heat treatment. Other reasons for incinerating

or burying animal waste are: if the animal waste is in a place where access is difficult; or if the quantity and distance are such that collecting the waste is not justifiable. The high-risk material must be buried sufficiently deep in suitable terrain to prevent contamination of the groundwater and any other form of environmental nuisance. Before the carcasses are buried, they must have an approved disinfectant poured over them.

Specifics regarding the disposal of sperm whales

According to the letter of the law, the sperm whale waste was first regarded as a low-risk material. A free market in principle prevails with regard to processing for low-risk material. Later, after the sperm whales had already been completely processed, it was found that this material was high-risk because of the presence of mercury and other hazardous substances such as PCBs and DDT. The OVAM initially was not consulted and would never have given permission for processing if it had known what the sperm whale contained.

The processing of animal waste in a processing facility consists in breaking up the waste into small pieces so that it can be sterilised, after which the waste is separated into animal fat and protein-containing animal meal. The final products of the processing are used for animal feed. The intervention of OVAM was requested after problems arose in the processing process: difficulties with sterilisation because of the danger of the heat-exchange pipes becoming blocked with collagen and problems with the free fatty acid content of the final product owing to the types of the fat and the degree of decay of the waste at the time of processing.

Part of the waste could be processed in another approved processing plant and agreements were reached with a class II landfill and with the Environmental Inspectorate Administration (Bestuur Milieu-inspectie) so that the sperm-whale residues could be disposed of in landfills if new problems arose. Landfilling can be regarded as a controlled form of burial.

Responsibility for the composition of animal feed is vested not in OVAM but in the Ministry of Agriculture, through its Raw Materials Department. Annex I of the Royal Decree of 10 September 1987 concerning the trade in and use of substances intended for animal feed primarily states that products and by-products from the processing of carcasses or parts of carcasses of warm-blooded terrestrial animals and analogous products originating from fish are suitable for animal feed. From the biological point of view, sperm whales are warm-blooded marine animals and not fish, and the question can therefore be asked whether they are allowed to be processed into animal feed. Annex I on undesirable substances in the Ministerial Decree of 11 September 1987 concerning trade in and the use of materials intended for animal feed only mentions mercury and pesticides but not PCBs. For animal meal originating from fish or other marine animals, a mercury residue of 0.5 mg/kg may be present

when the food is reduced to a moisture content of 12%. A residue of pesticides of 0.2 mg/kg of the feed brought to a moisture content of 12% may be present in animal-feed fats.

As a result of the difficulties encountered in the processing process, the sperm-whale waste was mixed with other animal waste in such a way that sufficient dilution of the harmful substances in the animal meal took place.

Conclusions

In retrospect, the processing of sperm-whale waste into animal feed was not a good choice. Alternatives were incineration or disposal in landfills. Incineration, however, is technically almost impossible in the open air and there are no incinerators capable of incinerating large amounts of animal waste. Disposal in landfills or burial is the only alternative. Permission has to be granted by the Environmental Inspectorate Administration for burial or disposal in landfills. Disposal at sea, as has already been done in France, is also impossible in Belgium.

To prevent similar problems arising in the future, a clearly outlined plan should be drawn up beforehand, providing for consultation of all the government bodies involved.

Legislation references

MINISTRY of AGRICULTURE. Regency Decree of 24 January 1946 concerning the disposal of animal carcasses not suitable for human consumption ("betreffende de wegruiming van voor het verbruik ongeschikte dierenlijken") ("relatif à l'enlèvement des cadavres d'animaux impropres à la consommation"), amended by the decrees of 29 December 1970, 1 July 1976 and 2 December 1986.

OVAM. Decree of 2 July 1981 concerning the prevention and management of waste materials, amended by decree of 20 April 1994.

MINISTRY of AGRICULTURE. Animal Health Act of 24 March 1987. Annulment of Sections 13 and 14 of this Act by the Court of Arbitration on 31 January 1989.

MINISTRY of AGRICULTURE. Royal Decree of 10 September 1987 concerning the trade in and use of materials intended for animal feed and Ministerial Order of 11 September 1987 concerning the trade in and use of materials intended for animal feed.

EC. Council Directive 90/667/EEC of 27 November 1990 laying down the veterinary rules for the disposal and processing of animal waste, for its placing on the market and for the prevention of pathogens in feedstuffs of animals or fish origin and amending Directive 90/425/EEC.

MINISTRY of AGRICULTURE. Royal Decree of 16 December 1992 *tot vaststelling van gezondheidsvoorschriften voor de verwijdering en verwerking van laag-risicomateriaal van dierlijke oorsprong, voor het in de handel brengen ervan en ter voorkoming van de aanwezigheid van ziektenverwekkers in diervoeders van dierlijke oorsprong vissen daaronder begrepen*. Suspension of this Royal Decree by the Council of State on 27 July 1993 and annulment on 6 March 1995.

OVAM: Order of the Flemish government of 23 June 1993 concerning the collection and processing of animal waste, annulled by the Council of State and replaced by a new order of the Flemish government on 24 May 1995.

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