Managing the Impacts of Extreme Heat Across the Livestock Supply Chain
A FABRA UK Position Statement – 11th August 2026

Purpose

The Foodchain and Biomass Renewables Association (FABRA UK) represents the UK animal by-products processing and rendering industry.

This position statement explains the exceptional challenges that periods of extreme heat can create across the livestock and food supply chain, including increased livestock mortality, the consequential pressures placed on the rendering industry, and why temporary increases in odour may occur despite appropriate environmental controls being maintained.

It also highlights the essential role played by rendering companies in maintaining animal health, biosecurity and food-chain resilience by ensuring that fallen livestock and other animal by-products (ABPs) can be promptly removed and safely processed.

It is intended to assist Government, environmental and animal health regulators, livestock-chain stakeholders and local communities in understanding these circumstances and the need for a coordinated approach to managing future extreme heat events.

Although this paper focuses on the role of the rendering industry, FABRA believes that adapting to more frequent periods of extreme heat requires coordinated planning across the entire livestock supply chain. Improving resilience will require action by livestock producers, processors, renderers, Government and regulators, recognising that rendering is one essential part of a much wider system.

FABRA would welcome consideration by the Environment Agency of making this information available through Citizen Space, or another appropriate public-facing communication channel, so that consistent information can be provided to communities affected by odour during exceptional heat events.

The essential role of rendering

Rendering is an essential part of the UK's animal health, biosecurity and food production infrastructure.

Rendering companies collect and process animal by-products (ABPs), including fallen livestock and material arising from slaughterhouses and food production. This material needs to be removed promptly and safely processed to protect animal and public health, maintain biosecurity and protect the environment.

Importantly, rendering is not a disposal process. Animal by-products are converted into sustainable, low-carbon animal fats and proteins, recovering valuable resources from these materials. These products have a wide range of applications, including animal and pet food, renewable fuels and energy, oleochemicals and fertilisers.

By safely returning these valuable fats and proteins to productive use, the rendering industry supports the circular economy, reduces waste and improves the overall sustainability and resource efficiency of the livestock and food supply chain.

The prompt removal of fallen stock is also important to the continuity of the UK's food supply. Farms affected by significant mortality events need to be cleared as quickly as possible so that appropriate cleaning and biosecurity measures can be undertaken and production can resume or livestock can be restocked. This is particularly important where replacement poultry chicks or porcine sows are already scheduled and in the production pipeline; if farms cannot be cleared and prepared for restocking, these animals may themselves have to be accommodated elsewhere or, in some circumstances, culled.

The rendering industry therefore performs an important role not only in managing animal by-products and biosecurity, but also in maintaining animal welfare, keeping livestock and food supply chains operating and helping to keep food on the nation's table, while recovering valuable resources and improving the sustainability of the food chain.

What happens during a heatwave?

Periods of sustained high temperatures can cause increased livestock mortality. Poultry are particularly susceptible to heat stress and potentially significant mortality events, but the effects are not limited to poultry. Extreme temperatures can increase mortality and animal welfare pressures across a range of farmed species.

At precisely the same time as the volume of fallen stock requiring collection increases, high ambient temperatures accelerate the decomposition of animal material.

Material may therefore become significantly degraded and highly odorous while still on the farm and can deteriorate further while awaiting collection and during transportation.

Rendering installations can consequently face two simultaneous challenges:

- a sudden increase in the quantity of material requiring processing; and
- a significant deterioration in its physical condition by the time it reaches the installation.

Highly decomposed material can become increasingly liquid or slurried, making it substantially more difficult to collect, transport, unload, handle and process. These conditions can significantly reduce effective processing throughput at exactly the point when demand for rendering capacity is at its highest.

Recent heatwave events have demonstrated how quickly these circumstances can place significant pressure on the UK's rendering infrastructure.

Understanding odour during extreme heat events

Rendering installations operate under environmental permits and associated Odour Management Plans and are required to manage and minimise odour arising from activities within their permitted installation boundaries.

However, an important distinction needs to be understood when considering odour complaints during periods of extreme heat.

A significant proportion of the odour associated with these events can originate from the incoming material itself before it reaches the rendering installation.

Fallen livestock may already be significantly decomposed and highly odorous before collection. Odour can therefore arise while material remains on farms and during its subsequent collection and transportation.

The environmental permit for a rendering installation applies to activities within the permitted installation boundary. The transport of incoming ABP material through surrounding neighbourhoods before it enters that boundary does not form part of the rendering installation's environmental permit. Odour occurring during transport falls outside of the environmental permitting regime. This distinction is particularly important when investigating odour complaints.

An odour experienced within the local community during a heatwave should not automatically be attributed to a failure of the rendering installation's odour controls. The source may be vehicles carrying material which was already highly decomposed and odorous before it arrived at the installation.

FABRA believes that this distinction should be recognised when regulators investigate complaints and when information is provided to affected members of the public.

Why concentrating material at rendering sites can be the best overall outcome

During recent heatwave events, rendering companies have voluntarily continued accepting substantial quantities of highly degraded and difficult animal by-product material that they were not obliged to accept, recognising the wider public interest in maintaining animal welfare, biosecurity, continuity of the food supply chain and enabling farms to return to production as quickly as possible.

In doing so, members have accepted significant operational, environmental and commercial challenges that would not normally arise under standard operating conditions.

The alternative would be for fallen animals and deteriorating animal material to remain for longer periods across a much larger number of farms and food production premises.

This would potentially increase animal welfare, animal health, biosecurity, environmental and odour risks across a much wider geographical area.

The Animal and Plant Health Agency (APHA) has indicated its support for concentrating problematic material at the minimum number of appropriate specialist sites rather than leaving decomposing animal material dispersed across numerous farms and other livestock premises. This also enables affected farms to return to production as quickly as possible. Preventing farms from returning to production immediately can exacerbate the problem, particularly where incoming poultry chicks or replacement porcine sows are already scheduled and would otherwise need to be housed elsewhere or, in some circumstances, culled.

Rendering installations are specifically designed and operated to securely receive, contain and process animal by-products. Although concentrating exceptional quantities of highly degraded material at rendering sites may temporarily increase the potential for localised odour, this needs to be balanced against the potentially much greater consequences of leaving the same material dispersed across the livestock sector.

Prompt collection also enables affected farms to clear mortalities, undertake necessary cleaning and biosecurity procedures and return to normal production or restock as quickly as possible.

This is important for animal welfare and disease prevention, but also for maintaining continuity of food production and avoiding disruption to national food supply chains.

FABRA therefore believes that decisions during exceptional heat events should consider the overall animal welfare, animal health, biosecurity, environmental and food-security outcome, rather than considering localised odour risk in isolation.

Why the regulatory approach matters

Rendering companies are commercial businesses operating under environmental permits. Whilst members recognise the critical role they play in protecting animal health, biosecurity and the food supply chain, they are not under a general legal obligation to accept every load of animal by-products offered to them.

During periods of extreme heat, operators have nevertheless continued to accept significantly increased volumes of highly degraded material in order to support the livestock sector and prevent fallen stock remaining on farms. In doing so, they have accepted considerable operational, environmental and commercial challenges that would not normally arise under standard operating conditions.

Accepting highly decomposed material can reduce plant throughput, increase handling difficulties, extend processing times, increase the likelihood of equipment failures and

elevate the risk of odour complaints. It may also place operators at greater risk of temporarily being unable to comply with certain environmental permit conditions despite implementing all reasonably practicable mitigation measures.

The regulatory approach adopted during these exceptional events is therefore important. If operators conclude that accepting additional degraded material is likely to expose them to enforcement action or unacceptable environmental compliance risks, there is a real possibility that they may decide they cannot continue accepting those additional volumes.

The consequences of such a decision would extend well beyond the rendering industry. Material that cannot be accepted for rendering would remain on farms and other livestock premises for longer periods, increasing risks to:

- animal welfare;
- animal and public health;
- disease prevention and biosecurity;
- pest and vermin activity;
- odour affecting a much larger number of communities; and
- the timely cleaning, disinfection and return of farms to production.

This could also have wider consequences for the resilience of the livestock and food supply chain by delaying the recovery of affected farms and disrupting food production.

If material cannot be processed by FABRA members, the remaining disposal options are likely to be limited to incineration, although no suitable capacity has been identified for this type of material during the 2026 heatwave events to date, or, in exceptional circumstances, burial or landfill where permitted by the relevant authorities and subject to any necessary Government derogation.

For these reasons, FABRA believes it is in the wider public interest that environmental regulation during exceptional heat events takes account of the overall environmental, animal health, biosecurity and food security outcomes, rather than considering individual permit conditions in isolation.

Environmental regulation during exceptional events

The rendering industry remains responsible for complying with its environmental obligations during periods of extreme weather.

However, increases in volumes, combined with the deteriorated physical condition of incoming material, can significantly disrupt the ability of operators to process material at normal operational capacity. Material may consequently remain at installations for longer than would normally occur, increasing odour risk and potentially resulting in operators being temporarily unable to meet processing or storage times specified within environmental permits or Odour Management Plans (OMP).

Environment Agency guidance on OMPs requires operators not to receive highly odorous material, or material with the potential to become highly odorous, unless they are able to store and process it while controlling odorous emissions. The guidance also recognises that, where serious odour pollution occurs or there is an imminent risk of serious odour pollution, secondary control measures may include stopping relevant site activities, such as accepting further material.

This presents a particular challenge during exceptional heat events. The material being presented to rendering sites can be highly degraded and increasingly odorous, while suitable alternative disposal outlets are not available. Restricting or stopping acceptance at rendering sites would therefore leave material requiring disposal elsewhere, potentially resulting in additional transport, odour and environmental impacts, while also leaving the underlying disposal capacity problem unresolved.

The Environment Agency's own OMP guidance recognises that the operational capacity of a rendering site to safely handle odorous material is influenced by practical factors, including the type and condition of the material and how it is managed. FABRA believes that this principle is particularly relevant during exceptional heat events, when both the volume and physical condition of incoming material can change significantly over a very short period.

This creates a difficult situation for rendering operators. Continuing to receive material supports animal welfare, biosecurity and continuity of the food supply chain, but may increase the risk of temporary non-compliance with environmental permit requirements. Conversely, refusing further material in order to maintain normal permit timescales could result in fallen stock remaining at farms and other premises, potentially creating greater animal health, biosecurity, odour and food-chain consequences.

FABRA has formally asked the Environment Agency and Local Authority Unit to clarify the regulatory position that would apply in these circumstances and to establish a consistent national approach for both Environment Agency and Local Authority-regulated rendering installations.

In particular, FABRA has asked what regulatory response operators should expect where they have notified their regulator of exceptional operating conditions, are maximising available processing capacity and are taking all reasonably practicable measures to minimise environmental impacts.

The Environment Agency has acknowledged this request and advised FABRA that it intends to provide a response in September.

FABRA welcomes this commitment. A clear and consistent national position will help operators understand what is expected of them during future extreme weather events and help avoid equivalent circumstances being treated differently between individual regulatory areas or between Environment Agency and Local Authority-regulated installations.

The objective is not to reduce environmental protection, but to ensure that regulatory decisions during exceptional events consider the overall risk and public interest, including animal welfare, biosecurity, environmental protection and the resilience of the UK's food supply chain.

A whole-chain approach to climate resilience

Recent events demonstrate that extreme heat and livestock mortality cannot be considered solely as a rendering-sector problem.

Rendering sits at the end of the livestock and food production chain. Renderers have very limited ability to influence either the number of animals lost during periods of extreme heat or the condition of those animals by the time they are collected.

At the same time, rendering operators are increasingly being required to consider how their installations will adapt to climate change and more frequent extreme weather events.

FABRA believes that climate resilience therefore needs to be addressed on a whole livestock and food supply-chain basis.

This should include measures to reduce heat stress and heat-related mortality at farm level, arrangements for rapid collection of fallen stock, sufficient rendering and contingency disposal capacity, appropriate regulatory arrangements for exceptional events and effective communication with affected communities.

The objective should be to prevent or minimise livestock losses wherever practicable and, where mortality does occur, ensure that the whole chain is capable of responding quickly and effectively.

No single part of the supply chain can address these challenges in isolation. Effective planning will require cooperation between livestock producers, processors, renderers, Government, animal health authorities and environmental regulators.

This issue is not limited to fallen-stock processing and Category 1 rendering plants. The heatwave also created pressures at Category 3 rendering sites, which experienced increased volumes of highly odorous food and butchery waste following refrigeration plant failures elsewhere in the supply chain.

Normally, Category 1 rendering capacity can provide contingency support to Category 3 sites during such events. During the recent heatwave, however, this contingency capacity was not available because Category 1 plants were themselves operating at or near capacity.

Prolonged disruption across different parts of the rendering sector therefore has the potential to exacerbate capacity and operational pressures throughout the wider rendering network.

Information for local communities

FABRA recognises that odour can cause genuine concern and inconvenience to people living near rendering installations and along transport routes used to access them.

During extreme heat, however, animal material deteriorates exceptionally quickly. Fallen livestock may consequently become highly odorous before collection and continue to deteriorate during transportation.

Rendering companies are providing an essential service by removing this material from farms and food production premises and transferring it to specialist facilities where it can be securely managed and processed.

This protects animal health and biosecurity, prevents deteriorating material remaining at numerous locations across the countryside and enables affected farms to be cleared, cleaned and returned to food production as quickly as possible.

It is also important when responding to complaints to establish whether the odour originates from within the rendering installation or from incoming vehicles transporting already decomposed material through the surrounding area, as these are subject to different regulatory regimes.

Temporary increases in odour during exceptional heat events therefore need to be understood in the context of the much wider animal welfare, biosecurity, environmental and food-security risks that the rendering industry is helping to manage.

FABRA's position

FABRA believes that the experience of recent heatwaves demonstrates the need for a coordinated national approach to managing the impact of extreme heat on livestock and the consequential increase in fallen stock and other animal by-products requiring collection and processing.

The rendering industry will continue to play its part in maintaining this essential service and minimising its environmental impacts. However, resilience cannot be delivered by rendering operators alone.

FABRA is therefore seeking continued collaboration between DEFRA, APHA, the Environment Agency, Local Authority regulators, livestock organisations and the rendering industry to develop a national heatwave contingency approach for the livestock and animal by-products supply chain.

Such an approach should prioritise prevention of heat-related livestock mortality wherever practicable, while ensuring sufficient collection, rendering and contingency disposal capacity is available when exceptional mortality events occur.

It should balance the need to protect local communities from environmental impacts with the equally important requirements to protect animal welfare, maintain biosecurity, rapidly clear affected farms and food production premises, maintain rendering capacity and ensure the continued resilience of the UK's food supply chain.

FABRA also believes that clear and consistent public communication is important. We would therefore welcome the Environment Agency considering publication of this briefing, or an agreed public-facing version, through Citizen Space or another suitable national communication platform.

This would provide regulators with consistent information to refer to when responding to odour concerns and help communities understand both the exceptional circumstances and the wider public interest being served by the rendering industry.

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