

Restriction on the use of waste gypsum and plasterboard in animal bedding

Background

Straw, sand and woodchips/shavings/sawdust from virgin timber have traditionally been used as a livestock bedding material.

Some wastes may also be suitable for use as bedding material provided they do not pose a risk to the health of animals or humans, or to the environment.

The disposal of waste plasterboard, gypsum and gypsum containing material together with biodegradable wastes, can lead to the production of high concentrations of hydrogen sulphide gas which is both odorous and toxic. For this reason, the land filling of gypsum and other high sulphate bearing wastes with biodegradable wastes is prohibited in Northern Ireland.

The NIEA has adopted a Quality Protocol for recycled gypsum but, it does not include animal bedding as an approved end use. During the development of the Quality Protocol, there was no risk assessment carried out into the use of waste plasterboard or waste gypsum as animal bedding.

It is likely that hydrogen sulphide gas will be produced when waste plasterboard or waste gypsum is used in animal bedding systems which allow moist, anaerobic conditions to develop. Studies carried out into the factors that result in the generation of hydrogen sulphide gas in landfills support this, as does anecdotal evidence. There have also been instances of cattle deaths at locations where gypsum wastes were used in bedding and investigations into the possibility of a link are ongoing.

Our position

The use of waste gypsum, waste plasterboard or recycled gypsum material as animal bedding without a waste authorisation is an offence. NIEA will not authorise the use of these materials until there is clear scientific evidence to demonstrate that they do not pose a risk to animals, humans or the environment from hydrogen sulphide generation.

If as the result of further research, there is evidence that waste gypsum is suitable for use as animal bedding, NIEA will review this position.