

FEED MATERIALS ASSURANCE SCHEME

NATURAL MINERALS SECTOR NOTES

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NOTE: Although these Sector Notes may be translated into various languages for the convenience of users, the English version remains the definitive reference document in the event of any dispute.

NOTES ON THE IMPLEMENTATION OF FEMAS FOR BUSINESSES EXTRACTING NATURAL MINERALS BY QUARRYING & MINING

Sector Notes are provided to assist FEMAS participants and assessors in establishing some background knowledge of specific feed industry supply sectors where issues may exist that are uncommon, or of less relevance, in other sectors. These Notes are not necessarily exhaustive.

These Sector Notes are relevant for businesses involved in the processing into animal feed of naturally occurring minerals such as limestone (Calcium carbonate), salt (Sodium chloride), clays (bentonite, kaolinite, etc) and other minerals which undergo no further processing beyond extraction, crushing, washing, drying and grading.

These Notes are laid out in the same format as the FEMAS International Core Standard. Where additional comment is necessary, the clause reference is to the appropriate section of the FEMAS International Core Standard. It is emphasised that the comments included in this document are intended to assist in the application of the corresponding requirements of the FEMAS International Core Standard and are not to be considered in isolation. For clauses where no additional comments are provided in this document, the original requirements of the FEMAS International Core Standard continue to apply without any additions or exclusions.

The most recent additions and amendments to these Notes are shown in *blue italics*, for ease of reference.

The expert knowledge and assistance of members of the UK Natural Mineral Quarrying and Mining Industries in preparing these Sector Notes is gratefully acknowledged.

1.10 Definitions

Natural Minerals: *Naturally occurring minerals such as limestone (calcium carbonate), salt (sodium chloride), clays (bentonite, kaolinite, etc) and other minerals which undergo no further processing beyond extraction, crushing, washing, drying and grading.*

For additional definitions refer to FEMAS International Core Standard

SECTION 3 RESOURCES AND GOOD HYGIENIC PRACTICES

3.4 Storage Facilities

As minerals are generally unattractive to pests, the level of proofing necessary in stores may be less than for many products. Nevertheless, participants must be aware of and control birds roosting in stores and any other animals that may foul mineral stocks. Where they are used, participants must show that no additional hazards result from the use of stores that are not proofed against pests.

As a minimum, storage facilities must protect feed ingredients from inclement weather.

3.7 Driers / Drying

Where waste / recycled fuels are used to fire driers used for processing Natural Minerals, participants must demonstrate through risk assessment that there is no consequential risk of significantly increasing the levels of dioxins, PCBs, heavy metals or other hazards in the feed ingredients being produced. This is particularly the case where combustion gases come into direct contact with feed ingredients (or the minerals used to produce them).

Where waste / recycled fuels are used to fire driers, participants must:

- Obtain written assurances from suppliers of waste / recycled fuels with regard to undesirable substances.

AND

- Obtain analytical data (at a frequency dictated by risk assessment) for the fuels used, to confirm that undesirable substances are at acceptable levels, unless risk assessment specifically demonstrates that no hazard exists.

3.8 Cross-Contamination

Where participants operate processes on the same site associated with production of products for non-food / feed industries, potential hazards to feed ingredients as a result of this must be considered and controlled. Where potential hazards to feed ingredients exist, products destined for feed use must be totally segregated from these processes.

3.15 Process Water & Water Used For Cleaning Purposes

Where Natural Minerals destined for feed use are washed as part of the production process, participants must show that no pathogen or chemical hazard is created by such practices.

SECTION 4 TRANSPORT REQUIREMENTS

4.2.3 Inspections of Land Transport Prior to Loading

Where the health and safety of quality personnel would be put at risk by climbing onto road tankers to carry out internal inspections, participants must comply with one of the following:

- Allow safe access by provision of safety platforms from which inspections may be done
- Nominate and train drivers to undertake inspections (in which case records of training must be held)
- Utilise risk assessment methodology to put in place alternative controls that will ensure issues of cross-contamination can be avoided (e.g. by use of dedicated tankers). In any such assessment, consideration must be given to the potential effects of inadvertently mixing different grades of the same product.

SECTION 5 PRODUCT SAFETY MANAGEMENT

5.1.5 Hazard Analysis / Identification (CODEX Principle 1)

In addition to general feed hazards, participants must consider the following (this list is not exhaustive):

- Naturally occurring hazards, such as heavy metals
- Those introduced by the use of specialist machinery and processes.
- Contamination by oils (hydraulic, vehicle lubricants, drilling lubricants, etc)
- Fumes from driers (also potentially vehicle exhausts in mines)
- Blasting equipment and residues from blasting

5.3 Buying In and Trading of Feed Ingredients

Where producers have agreements with third parties to supply product to each other in times of shortage or to save on haulage, any products offered for sale by the participant within the scope of his FEMAS certificate must meet the requirements of FEMAS and have been extracted and processed by a FEMAS certified company.

5.4.1 Raw Materials Suppliers

Where participants utilise their equipment to process products extracted by others, it is essential that any such product is subjected to the same controls as product extracted by the participant himself.

5.13.5 Undesirable Substances

Participants' risk assessments must take into account the possibility of Natural Minerals being contaminated with naturally occurring undesirable substances. Among others, consideration should be given to fluorine, heavy metals (cadmium, lead, mercury, arsenic, etc) as well as the possible presence of natural dioxins (perhaps from prehistoric volcanic activity). Participants must establish whether such contaminants represent a hazard and implement monitoring and control procedures accordingly.

5.13.6 Microbiological Analysis

Although the risk of pathogens in Natural Mineral products is generally recognised as being very low, salmonellae have the ability to encyst (survive in a dormant state) and have been recorded in products such as limestone where bird droppings were the inoculants. All participants must therefore have monitoring programmes in place, with testing frequency based on risk assessment.

Applicable Regulations

There are no specific regulations applicable to Natural Minerals over and above those regulations that apply to all feed ingredients.