GMP+ Feed Certification scheme

B

Module: Feed Safety Assurance

GMP+ B4.1
Road Transport

4.1

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EN

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Feed for Food

History of the document

Revision no. / Date of approval	Amendment	Concerns	Final implementation date
0.0 / 09-2010	Previous versions can be found in History		01-01-2011
0.1 / 09-2011			01-01-2012
1.0 / 11-2012			01-03-2013
1.0 / 06-2014	Editorial changes: All editorial changes are put together in a factsheet	Entire Document	01-01-2015
	Requirement that the journey sheet must be present on the loading compartment is adapted.	7.12.6	01-01-2015
As of 1-1-2013 no initial audits or extension audits may be performed for GMP+ B4.1. Supervision audits are still permitted. The current GMP+ B4.1 standard will remain available on our website until 31-12-2015.			

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1 Introduction

1.1 General

The GMP+ Feed Certification scheme was initiated and developed in 1992 by the Dutch feed industry in response to various more or less serious incidents involving contamination in feed materials. Although it started as a national scheme, it has developed to become an international scheme that is managed by GMP+ International in collaboration with various international stakeholders.

Even though the GMP+ Feed Certification scheme originated from a feed safety perspective, in 2013 the first feed responsibility standard has been published. For this purpose, two modules are created: GMP+ Feed Safety Assurance (focussed on feed safety) and GMP+ Feed Responsibility Assurance (focussed on responsible feed).

GMP+ Feed Safety Assurance is a complete module with standards for the assurance of feed safety in all the links of the feed chain. Demonstrable assurance of feed safety is a 'license to sell' in many countries and markets and participation in the GMP+ FSA module can facilitate this excellently. Based on needs in practice, multiple components have been integrated into the GMP+ FSA standards, such as requirements for a feed safety management system, for application of HACCP principles, for traceability, monitoring, prerequisites programmes, chain approach and the Early Warning System.

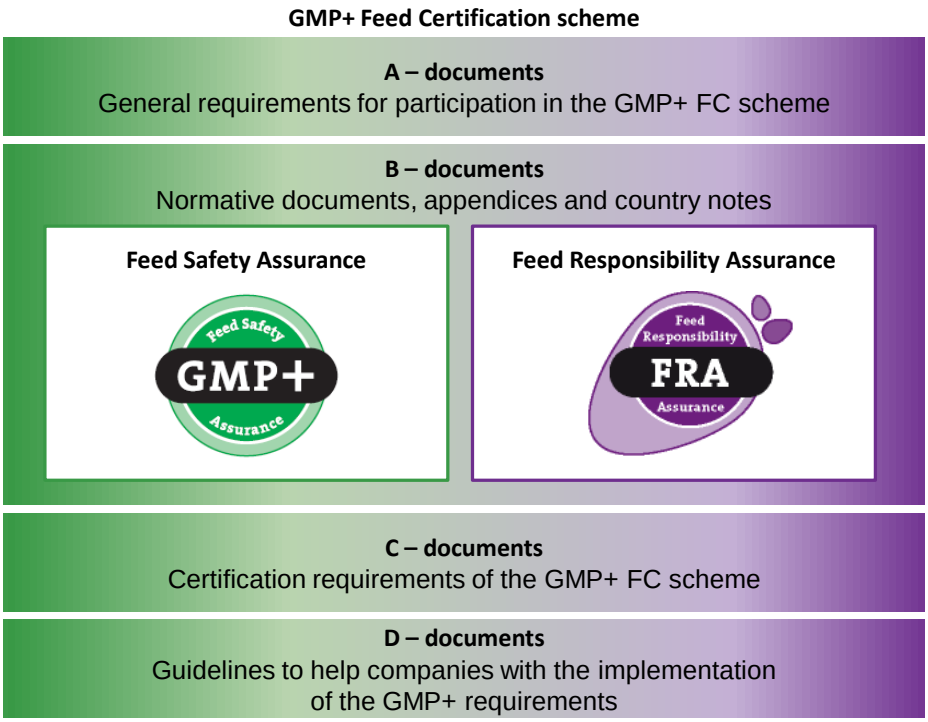
With the development of the GMP+ Feed Responsibility Assurance module, GMP+ International is responding to requests from GMP+ participants. The animal feed sector is confronted with requests to operate more responsible. This includes, for example, the sourcing of soy and fishmeal which are produced and traded with respect for humans, animals and the environment. In order to demonstrate responsible production and trade, a company can get certified for the GMP+ Feed Responsibility Assurance. GMP+ International facilitates via independent certification the demands from the market.

Together with the GMP+ partners, GMP+ International transparently lays down clear requirements in the Feed Certification scheme. Certification bodies are able to carry out GMP+ certification independently.

GMP+ International supports the GMP+ participants with useful and practical information by way of a number of guidance documents, databases, newsletters, Q&A lists and seminars.

1.2 Structure of the GMP+ Feed Certification scheme

The documents within the GMP+ Feed Certification scheme are subdivided into a number of series. The next page shows a schematic representation of the content of the GMP+ Feed Certification scheme:



All these documents are available via the website of GMP+ International (www.gmpplus.org).

This document is referred to as GMP+ B4.1 *Road Transport* and is part of the GMP+ FSA module.

1.3 Scope and application of this standard

This standard contains the conditions and requirements for the feed safety assurance of
a. road transport of feed,
b. affreightment of road transport of feed.

By 'road transport' is understood: the carrying of feed by trucks and road vehicles for one's own company or for third parties. In addition to physical transport this includes all the activities required to make the transport possible including planning, purchasing, cleaning and documentation. This is referred to hereafter as 'transport'.

The requirements of this standard apply to organisations, irrespective of their type or size, which carry out activities which are covered within the scope of this standard. It is not important whether a company carries out these activities on its own account or as a (sub)contractor ('service provider'). The responsibility of the participant carrying out the transport or organising it, is limited within this standard solely to the transport of feed materials. Other GMP+ standards apply for other forms of transport and physical handling of feed.

Each participant must establish the company-specific hazards relating to the safety of feeds and analyse and control them by applying HACCP principles.

This standard describes as accurately as possible for activities or feed ingredients which are covered within the scope of this standard what the requirements are with respect to the various risks and what the associated control measures are.

A participant may make these control measures part of a prerequisites programme or may implement them as specific measures for controlling a particular critical control point. This standard also provides requirements for inspections and audits.

If a participant carries out activities with feeds which are outside the scope of this standard then it may be necessary to apply another GMP+ standard instead of, or in addition to, this standard.

For exact details is referred to GMP+ C1 *Approval Requirements and Procedure for Certification Bodies*, Annex 1

The participant remains responsible at all times for the safety of the feed and activities associated with them, as well as for checking on compliance with the requirements. This must be done by the participant himself. By complying with the requirements of this standard and by being certified accordingly, the participant can demonstrate the safety and quality of his services or feed to third parties.

Irrespective of the obligations arising from this standard, the participant will only offer services regarding feeds which are safe for animals and (indirectly) safe for the consumers of the animal products.

1.4 The structure of this standard

This standard is structured according to the latest version of the ISO 9001 standard. The structure of this standard is (almost) the same as ISO 9001 and GMP+ B1 standard, so that organisations which, in addition to transport also produce, process or trade animal feeds, can apply the transport standard fairly easily.

The sections which are designated with a *) have been completed by a participant in another GMP+ standard through that certification and these sections no longer have to be completed for participation in this standard.

GMP+ Appendices (GMP+ BAxx), to which there are also references, are separate GMP+ documents within the B series which are not attached to this standard. If there is a reference then it applies within the framework of this standard. See also Chapter 2.

1.5 Exclusion of requirements

It is possible that certain requirements do not apply to a participant. A participant may exclude these requirements. Exclusions must, however, be justified and recorded. The exclusions may in any event not lead to the participant supplying feeds or offering services which do not comply with feed safety as defined in the GMP+ FSA module.

No requirements may be excluded because the participant finds them to be not relevant such as because customers do not ask for them or because compliance with these requirements is not a legal obligation or because the company is small.

2 Normative references

2.1 GMP+ documents

In addition to the requirements listed in this GMP+ standard, the participant must also comply with the requirements included in the GMP+ Appendices (GMP+ BAxx) and with the International Database Transport for Feed (IDTF) to which reference is made in this standard.

The participant must also comply with the relevant requirements as recorded in the GMP+ A-documents.

These documents can be found on GMP+ International's website (www.gmpplus.org)

2.2 Legal compliance

Special attention was paid when drawing up this standard to the inclusion of the relevant requirements in the applicable feed legislation. Compliance with this standard does not however guarantee that there is compliance with all the legal requirements or mean that feed legislation can then be ignored. It is the participant's own responsibility to comply with the relevant feed legislation.

In addition to the requirements of this standard the participant must also verify and ensure that his transport activities are in accordance with the applicable legal requirements.

3 Terms and definitions

See GMP+ A2 *Definitions and Abbreviations*

4 Feed Safety Management System

4.1 Requirements for the feed safety management system

The participant must set up the feed safety management system so that it complies with the requirements of this GMP+ standard. The participant must document this, implement it and maintain it as well as continuously improve its effectiveness.

The participant must:

a. Establish and record the scope of the feed safety management system. The scope must at least include all the transport for which the participant is responsible:
   1. The participant is responsible for the transport.
   2. The participant must specify all the transport of feed.
   3. The participant must bring all business locations from which transport takes place within the scope of the feed safety management system.
   4. All other activities, which means the activities which are not able to cover under this or other GMP+ standards must also be described by the participant. The participant must ensure that these activities do not have a negative influence on the safety of the feed.
   5. The participant should control all transport activities using his own feed safety management system in accordance with the requirements of this standard.
      This applies to own road transport:
      - of own or third-party feeds;
      - of both packaged (including sealed containers) and unpackaged feeds

      This applies to contracted out road transport:
      If the participant contracts this transport out then the participant must ensure that this transport complies with the requirements of this GMP+ standard Road Transport may only be contracted out to a company which is GMP+ certified for this. See section 7.11.

      Exceptions to this may be:
      If a participant makes use of an external carrier for the transport by road of packaged products (including sealed containers) then this external carrier does not have to be GMP+ certified.

   6. The road transport of vegetable foodstuffs[1] may – on the condition that the foodstuff carrier is HACCP-certified – be carried a feed company in a foodstuffs means of transport.

b. Establish working methods used to carry out the transport effectively.
c. Make available resources and information required for carrying out the transport.

[1] *Vegetable substances are all vegetable substances and products, processed, partially processed or unprocessed, which are intended for consumption by humans or where it may be reasonably expected that they will be consumed by humans.*

d. Monitor and evaluate the working methods.
e. Implement actions which are necessary to achieve planned results and continuous improvement of the transport.

These working methods must be controlled by the participant in accordance with the requirements of this GMP+ standard.

NOTE: If at one location several companies carry out activities covered a GMP+ standard, each of them must hold a certificate for these activities. See GMP+ A1 *General Regulations.*

4.2 Documentation

4.2.1 General

The documentation of the feed safety management system must include:
a. documented statements of the involvement of the management the feed safety policy and feed safety objectives;
b. a quality manual;
c. documented procedures required by this GMP+ standard;
d. documents required by the participant for the achievement of effective planning, implementation and control of the transport;
e. records required by this GMP+ standard (see section 4.2.4);
f. all relevant legally-required permits, records and certificates under the feed legislation.

The participant must maintain a register of the following documentation:
a. Documentation relating to the transport and the controls.
b. The participant should have a documentation system for the description of the critical points in the transport process and for the drawing up and implementation of a quality control plan as laid down in section 7.12 and in section *Procedures GMP+ International* published on the IDTF website.
c. The participant should keep the results of the controls: All these documents must be kept to be able to trace the history of any batch of transported feed and in the event of complaints to be able to determine responsibility (see also section 4.2.4).

NOTE:

The structure of the documentation of the feed safety management system may differ per organisation as a result of:
A. The size of the organisation and the type of transport;
B. The nature and complexity of the transport;
C. The expertise of the personnel.

4.2.2 Quality manual

The participant must set up and update a manual which includes:

a. the scope of the feed safety management system, including the details of and clear justification for any exclusions;
b. the documented procedures as required as a minimum under the GMP+ standard(s) which have been laid down for the feed safety management system or a reference to them;
c. a description of the transport activities and the relationships between them;
d. structure of the documentation.

4.2.3 Control of the documentation

Documents which are required by the feed safety management system must be controlled.
There is a documented procedure in which the authorities related to the approval, issue and control of documents are regulated. Controls are established in this as needed to:

a. review documents with respect to suitability before they are distributed;
b. assess documents and update them if necessary and to re-approve them; as in the event of changes to the feed legislation and/or the GMP+ standard;
c. know changes and the current revision status of the documents;
d. have the current versions of the documents available at workplaces where transport activities are carried out;
e. keep documents legible and easily recognisable
f. keep documents from an external source recognisable as such and controlling their distribution prevent of unintended use of lapsed documents and
g. application of appropriate identification if it is retained for whatever reason. Records must comply with the requirements in section 4.2.4.

4.2.4 Control of records

Records must be established and maintained to provide evidence of compliance with the requirements for the effective operation of the feed safety management system so that the feed safety of the products is guaranteed.

Records must be legible, easily recognisable and retrievable. A well-documented procedure must be established to define the control required for the identification, storage, protection, retrieval, storage period and destruction of records.

The storage period for these records amounts to at least three years unless a longer storage period is required under feed legislation or other regulations.

5 Management responsibility

5.1 Management commitment

Top management must demonstrate its involvement in the development and implementation of the feed safety management system and the continuous improvement of its effectiveness through:

a. making known within the organisation of the importance of compliance with both the requirements of the customers and the feed legislation and regulations
b. establishing the feed safety policy (see section 5.2);
c. establishing a management statement;
d. establishing feed safety objectives (see section 5.3.1);
e. carrying out management reviews (see section 5.5);
f. ensuring the availability of resources.

5.2 Feed safety policy

Top management must ensure that the feed safety policy:

a. is appropriate for the transport of safe feed;
b. is matched to the requirements of customers;
c. prescribes that the company works in accordance with the requirements of the feed safety management system;
d. offers a framework for the establishment and assessment of feed safety objectives;
e. is made known and is understood within the organisation, and
f. is reviewed for continuing suitability and improvement.

5.3 Planning

5.3.1 Feed safety objectives

Top management must ensure that objectives related to the safe transport of feed are established for relevant functions and levels within the organisation. The feed safety objectives must be measurable and consistent with the feed safety policy.

5.3.2 Planning of the feed safety management system

Top management must ensure that

a. the feed safety management system is introduced and maintained correctly in order to comply with both the requirements in section 4.1 and the feed safety objectives, and
b. the operation and cohesion of the feed safety management system is maintained when changes relating to the feed safety management system are planned and implemented.

5.4 Responsibility, authority and communication on feed safety

5.4.1 Responsibility and authority

Top management must ensure that the responsibilities and competences are defined and made known in writing within the organisation. The participant must record the responsibility structure in an organisational chart.

5.4.2 HACCP-team

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5.4.3 Management representative

Top management must appoint a management representative who, irrespective of other responsibilities, must have the responsibility and authority:

a. to establish a feed safety management system and to implement it and maintain it in accordance with this standard, and
b. to report to top management on the performance of the feed safety management system and any need for improvement, and
c. to ensure that the awareness of the requirements of customers is promoted throughout the whole organisation.

NOTE: In (small) organisations these responsibilities and competences may lie with the same person.

5.4.4 Internal communication

Top management must ensure that appropriate methods of communication are established within the organisation and that communication takes place with respect to the effectiveness of the feed safety management system in order to comply with the GMP+ standard.

5.5 Management review

5.5.1 General

Top management must review the feed safety management system at least once per year with regard to effectiveness and whether it is possible to comply with the requirements of this standard. This review must also include the assessment of opportunities for improvement as well as the need for changes in the feed safety management system, including feed safety policy and feed safety objectives.

Records of management reviews must be kept (see section 4.2.4).

5.5.2 Review input

The input to the management review must include information on:

a. results of the internal audits (section 8.2) and the verification (see section 8.3);
b. the assessment and evaluation of the suppliers (including hired carriers and suppliers of cleaning and disinfection agents) (see section 7.11 and 8.3);
c. results of external audits;
d. feedback from customers;
e. the extent to which transport complies with the requirements;
f. status of preventive and corrective measures;
g. follow-up measures from previous management reviews;
h. changes which may influence the feed safety management system, and
i. recommendations for improvement.

5.5.3 Review output

The output of the management review must consist of the exclusions and measures with respect to:

a. improvement of the effectiveness of the feed safety management system;
b. improvement of the transport with respect to the requirements of customers; and
c. requirement for resources.

6 Management of recourses

6.1 Provision of recourses

The participant must determine which resources are needed and ensure that these resources are available

a. to implement and maintain the feed safety management system and continually to improve its effectiveness;
b. to improve feed safety through compliance with the requirements of the stakeholders as established in the GMP+ FSA module.

6.2 Personnel

6.2.1 General

Personnel performing work affecting feed safety must be competent based on appropriate education, training, skills and experience. The participant must have sufficient personnel with the skills and qualifications which are required for the transport of feed.

An organisation chart must be drawn up. There must also be a description of the qualifications (for example diplomas, professional experience) and the responsibilities of the supervisory personnel which must be made available to the competent authorities who are responsible for inspection.

The personnel involved in transport must be clearly informed in writing of their tasks, responsibilities and authority, especially in the event of changes, to obtain the desired product quality.

Where relevant, a person with relevant qualifications must be designated with quality control.

6.2.2 Competence, awareness and training

The participant must:

a. determine the necessary skills for the personnel performing work which influences the achievement of the safe transport of feed;
b. provide training or take other actions to satisfy these needs;
c. evaluate the effectiveness of the actions taken;
d. ensure that its personnel are aware of the importance of their activities with respect to feed safety and how they contribute to the achievement of feed safety objectives;
e. maintain records of personnel education, training, skills and experience (see section 4.2.4).

6.3 Infrastructure

The participant must determine, provide and maintain the infrastructure needed for the safe transport of feed.

a. Infrastructure includes, as applicable;
b. buildings, working areas and associated facilities;
c. means of transport and/or loading compartments;
d. process equipment (both hardware and software);
e. supporting services (for example communication).

6.3.1 Basic requirements

The participant will ensure that the means of transport:

a. are made of appropriate materials which can be effectively cleaned and maintained to avoid contamination of the feed. This applies in particular to materials and surfaces which come into direct contact with feed;
b. are in good technical condition;
c. are appropriate for their intended use and function in accordance with their intended use;
d. make good hygiene production/practices possible;
e. are free on the outside, including the chassis, from visible particles from prior loads.

6.3.2 Requirements for facilities, production areas and equipment

6.3.2.1 Facilities

The facilities must be such that:

a. the chance of errors is as small as possible and contamination, cross-contamination and general harmful effects on the safety and quality of the feed is avoided as much as possible;
b. no confusion can occur between different products, the products are properly identified and cross-contamination and decay is prevented

Effective programmes must be used for combating harmful organisms.

6.3.2.2 Production areas

Areas for the means of transport and loading compartments and their immediate surroundings must be clean.

The lay-out, design, construction and size of the production areas and equipment must be such that:

a. cleaning and/or decontamination and maintenance can be carried out in a proper fashion;
b. the areas, including the company site around them, are only accessible for persons who have been given permission to do so by the participant.

6.3.2.3 Loading compartments

The company shall ensure that the loading compartments:

a. are clean, fully emptied, free of load residues and free of the odour of previous loads;
b. are dry and/or dried in case of dry subsequent loads;
c. are covered unless the participant demonstrates that not covering the loading compartment does not involve any risks of product contamination.

6.4 Work environment

6.4.1 Maintenance

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6.4.2 Cleaning

The penetration of harmful organisms into feed must be prevented to counter decay. Where necessary the temperature must be kept as low as possible in order to prevent condensation or decay.

Cleaning programmes must be introduced. This must include responsibilities and methods, frequency and times of the cleaning.

The cleaning and decontamination agents require special attention. These must be appropriate for the purpose for which they are used. They must also not form any risk to feed safety.

The residues of cleaning and disinfecting agents must be kept as small as possible.

6.4.3 Waste control

Waste and material which is created at the participant that is not appropriate as feed must be identified as such and kept separate. This must be removed properly and may not be used as feed.

Waste must be collected and stored in clearly designated bins or containers. Places where waste is collected and stored must be included in the cleaning and disinfection programmes.

The participant must make clear how the waste and its removal are controlled. The participant must be able to show that the waste does not and cannot get into the feed chain.

6.5 Identification and traceability

The participant must take appropriate measures to ensure that the feed transported can be traced effectively.

The participant must maintain a register with the relevant details relating to the transport so that transported products can be traced effectively.
The participant undertaking the transport has a reliable administration in which at least the following will be included:

a. the quantities and types of product[2] per client (i.e. the customer of the transport);
b. where applicable, copies of any accompanying documents, guarantees, certificates, etc.;
c. the loading and unloading addresses;
d. the identification and coding of the bulk load compartments used to achieve the transport sequence of goods transported;

The above data regarding customers and loading and unloading addresses may be documented in coded form, as long as insight can be given into the data pertaining to the codes used, for the external auditors.

Bulk load compartments must be identified and there must be traceability of the order of consignments using the loading compartments in question, including for instance by means of coding of the compartments and, by means of consignment notes, whether or not in electronic form, which are held on the vehicle.

N.B. Registration requirements are also stated in section 7.12.6.

[2] *Incl. At least the cleaning regime coding as specified in the IDTF.*

7 Process control

7.1 Basic requirements programme

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7.2 Planning of the realisation of a safe product

The participant must ensure the introduction, implementation and maintenance of one or more permanent, written procedures which are based on the HACCP principles.

These principles are:

a. to identify any hazards that must be prevented, eliminated or reduced to acceptable levels (see section 7.5),
b. to identify the critical control points at the step or steps at which control is essential to prevent or eliminate a hazard or reduce it to acceptable levels (see section 7.6),
c. to establish critical limits at critical control points which separate acceptability from unacceptability for the prevention, elimination or reduction of identified hazards (see section 7.7),
d. to establish and implement effective monitoring procedures at critical control points (see section 7.8),
e. to establish corrective action when monitoring indicates that a critical control point is not under control (see section 7.9),
f. to establish procedures to verify that the measures outlined in subparagraphs (a) to (e) are complete and working effectively. Verification procedures shall be carried out regularly (see section 7.10 and 8.3);
g. to establish documents and records commensurate with the nature and size of the feed businesses to demonstrate the effective application of the measures outlined in subparagraphs (a) to (f) (see section 4.2.1).

The HACCP principles described above have been detailed generically in this standard for the transport of feed and have resulted in the specific control measures with respect to transport sequence and cleaning and disinfection regimes. The participant implements the HACCP principles by using these control measures as specified in section 7.12 of this standard and the instructions with respect to transport sequence, cleaning and disinfection (section *Procedures GMP+ International* published on the IDTF website) .

7.3 Transport requirements

7.3.1 Determination of transport requirements

The participant must determine the requirements with respect to transport.

These are at least:
a. the relevant requirements established in the GMP+ FSA module and the special requirements of customers;
b. requirements not established in consultation with customers but which are necessary for the correct carrying out of the transport;
c. feed legislation requirements related to transport; and
d. any additional requirements determined by the participant and which relate to the safe transport of animal feed.

7.3.2 Review of transport requirements

The participant must review the transport requirements. This review must be carried out before the participant accepts a transport commission and must ensure that:
a. the transport requirements have been established (see section 7.3.1);
b. a solution is found for requirements from the contract or from orders which deviate from requirements which were made earlier, and
c. the participant has the ability to meet the established requirements.

Records of the results of the review and actions arising from the review must be maintained (see section 4.2.4).

Where transport requirements are changed, the participant must ensure that the relevant documents are amended and that the relevant personnel are made aware of the changed requirements.

7.3.3 Description of the product based on requirements (specifications)

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7.3.4 Communication with the customer

The participant must establish and implement effective measures for communication with customers with respect to:
a. Information about the transport;
b. enquiries, contracts or order handling including amendments, and
c. customer feedback

The participant must have a system in place for the recording and handling of complaints.

7.4 Process information

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7.5 Hazard analysis

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7.6 General and specific control measures

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7.7 Standards

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7.8 Monitoring and measuring

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7.9 Corrective actions

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7.10 Validation of the HACC plan

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7.11 Purchasing

7.11.1 Purchasing process

The participant must ensure that purchased products and services comply with the requirements of this standard. All external carriers who are used should be GMP+ certified. See also GMP+ BA10 *Minimum Requirements for Purchasi*ng.

7.12 Transport

7.12.1 Control of transport

The participant must draw up a description of the transport activities which he carries out. This description must contain at least the number and type of means of transport, the types of loads which are transported and the method of cleaning used. If there is any change to the transport process then the participant must review the description and the procedures and modify them if necessary.

The transport of feed should be carried out in such a way that a situation is avoided where previously carried products lead to contamination of subsequent feed transports.

The participant must ensure this by, after every load, cleaning, inspecting and checking in the correct way and recording everything properly. See section *Procedures GMP+ International* published on the IDTF website.

Feed may (in combined transports) not become mixed together.

Transport of packaged products must take place in a clean and dry loading compartment. The loading compartment should be completely emptied and free of load remains and odour from previous loads.

There must be supervision of the presence of feeds, undesirable substances and other contaminants which are harmful to the health of humans or animals and proper control strategies must be available to make the risk as small as possible.

7.12.2 Acceptance of the order, and cleaning regime

The participant must have at least a documented procedure for the acceptance of an order for the transport of feed.

The participant must determine the following before accepting the transport order:

a. goods description (nature and type) and preferably IDTF number of the product;
b. which cleaning regime applies. For this the participant should request information from the client with the transport order about the cleaning regime which applies.

Before loading the cleaning regime of the previous loads and of the new load must be determined, and there must be compliance with section *Procedures GMP+ International* published on the IDTF website in which further requirements for cleaning and disinfection and the loading sequence are set out.

In order to be able to establish this participant must be aware of the nature of the product and of the specific product characteristics including its (chemical) composition. If deviations are observed during loading or during transport then the participant should carry out corrective actions. (See section 8.4.2).

7.12.3 Check during loading

Prior to every feed transport, a visual check must be carried out as to whether the load compartment is clean, which means completely emptied and free of material residue and odour from previous loads, and dry or dried in the case of the next load being dry.

The driver should visually check the product during loading.

7.12.4 Cleaning

After the transport, cleaning and/or disinfection must be carried out in accordance with the cleaning regimes established and prescribed in the IDTF.

The participant must draw up a cleaning programme for this which demonstrably complies with the legal requirements and the additional requirements for cleaning (and disinfection) of means of transport as laid down in section *Procedures GMP+ International* published on the IDTF website.

Requirements laid down in *Procedures GMP+ International* establish the loading sequences and the cleaning and disinfection regimes.

The cleaning programmes will include as a minimum:
a. the responsibilities with respect to cleaning;
b. the cleaning methods;
c. the frequency and times of cleaning;
d. the use of the various cleaning and disinfection regimes depending on the previous load;
e. the critical items for attention per type of means of transport where there must be an indication of which parts must be disassembled before the start of cleaning (these are, for example, places which are difficult to clean such as pipes, hoses, hinges, pumps, places which cannot be reached, etc.);
f. cleaning and disinfection agents. These must be appropriate for the purpose for which they are used. They must also not form any risk to the safety of the feed which are being carried in the means of transport. The residues of cleaning and disinfecting agents must be kept as small as possible.

Each cleaning programme drawn up for a certain loading compartment must be checked for effectiveness (validated). Then this cleaning programme can be adopted as the official cleaning method for each similarly constructed loading compartment (see also section *Procedures GMP+ International* published on the IDTF website).

After each cleaning, at least a visual inspection must be carried out. The result of this inspection must be registered in the logbook, together with the registration of the transported loads, the applied intervening cleaning regimes with the cleaning and disinfecting agents used.

7.12.5 Monitoring and measuring

7.12.5.1 Checking the effectiveness of cleaning and disinfection regimes

The participant must review the effectiveness of the cleaning and disinfection methods used by way of additional checks. The participant must draw up a control programme which includes the minimum frequency for carrying out these checks.

7.12.5.2 Management of monitoring and measurement equipment

The participant must determine before implementation of the monitoring plan which monitoring and measurement equipment is required to demonstrate the feed safety of the product. The monitoring and measurement equipment must be registered (see section 4.2.4).

The participant must establish processes to ensure that the monitoring and measurement can be carried out and that it is carried out in a way which matches the monitoring and measurement requirements.
If it is necessary to achieve valid results the measurement equipment must:

a. be calibrated or verified at specified intervals or prior to use in accordance with measurement standards which are derived from international or national measurement standards; if such standards do not exist the basis used for the calibration or verification must be recorded (see section 4.2.4) and inspections will be in accordance with standardised checklists;
b. adjusted or re-adjusted if necessary;
c. identified so that the calibration status can be determined;
d. secured against adjustment which would make the measurement result invalid
e. protected against damage and deterioration during handling, maintenance and storage.

The participant must also assess and record the validity of the previous measurement results if it appears that the monitoring and measurement equipment does not function in accordance with the requirements. The participant must take suitable measures with respect to the equipment and any product which is influenced by it. Records of the results of calibration and verification must be maintained (see section 4.2.4).

If computer software is used in the monitoring and measurement of specified requirements its capacity to comply with the intended application must be confirmed. This must be done before initial use and re-confirmed if necessary.

7.12.6 Registration

Registration will take place of the transports, of the cleaning between consecutive bulk transports and of the inspections.

a. Loads should be recorded preferably with an IDTF number by the driver in the event of bulk transport for each loading compartment in a journey sheet, which may be in electronic form, on the means of transport or immediately available or retrievable.
   The registrations of the three prior loads in the loading compartment (with the carrier's signature and date) should be available for checking.
   The data in the vehicle journey reports must be transferred to the logbook at the offices of the transport company. See also the registration requirements in section 6.5.
b. The legally records including the waybill should be available.
c. The cleaning and disinfection actions for each bulk load compartment must be noted and initialled in the consignment note by the driver, whether or not in electronic form. The result of the cleaning and disinfection actions must be checked visually and recorded in the consignment note, along with the previous loads and the cleaning and disinfection actions.
d. The prescribed inspections and checks and also any other inspections and checks must also be registered.

The carrier must be able to demonstrate that in the past no 'prohibited loads' have been transported in a loading compartment (see section *Procedures GMP+ International* published on the IDTF website).

Following carriage of a prohibited load, no feed may be transported, unless the means of transport and/or loading compartment has been released according to the procedure for the acceptance of loading compartments after the transport of prohibited loads specified in section *Procedures GMP+ International* published on the IDTF website.

7.12.7 Corrective actions

The participant must ensure that non-conformities to the requirements in this standard are recorded and controlled in order to prevent unintentional use or delivery of the product. The controls and associated responsibilities and competences for dealing with non-conformities must be defined in a documented procedure.

The participant must deal with non-conformities in one or more of the following manners:

a. by taking measures to put an end to the observed non-conformity;
b. by permitting use, release or acceptance with the approval of the client and/or the relevant authority;
c. by taking measures to exclude the originally-intended use or application.

If there have been feed and undesirable substances and/or germs in a bulk loading compartment, then this loading compartment must be cleaned such that no contamination of the next load can take place. Records of this must be available.

Records of the nature of non-conformities and any measures taken later, including approvals obtained, must be maintained (see section 4.2.4).

If a non-conformity is corrected then there must be verification again of whether there is compliance with the requirements.

NOTE: This control shall provide for identification, documentation, evaluation, segregation (when practical), disposal of non-conforming products and for notification to the involved parties, both internal and external.

8 Measurement, analysis and improvement

8.1 General

The participant must plan and implement the required monitoring, measurement, analysis and improvement processes in order to:
a. demonstrate that the transport meets the requirements;
b. ensure that the feed safety management system meets the requirements, and
c. continuously to improve the effectiveness of the feed safety management system.

8.2 Internal audit

The participant must carry out internal audits at planned intervals to determine whether the feed safety management system:
a. conforms to the planned arrangements (see section 7.2), to the requirements of this GMP+ standard and to the requirements of the feed safety management system established by the participant, and
b. is effectively implemented and maintained.

An annual (which means a minimum audit frequency of 1x per 12 months) audit programme must be planned and implemented in which all parts of the transport process must be addressed. Account must be taken of the results of the previous audits.

The audit criteria, scope, frequency and methods must be established. Selection of the auditors and the conduct of audits must ensure the objectivity and impartiality of the audits. Auditors must not audit their own work.
The responsibilities and requirements for planning and conducting audits, and for reporting results and maintaining records (see section 4.2.4), must be recorded in a documented procedure.

The management responsible for the area being audited must ensure that actions are taken without undue delay to eliminate detected non-conformities and their causes. Follow-up activities must include the verification of the actions taken. The participant must also record the verification results.

8.3 Verification of the feed safety management system

The participant must determine, collect and analyse appropriate data at least once per year (which means with a minimum frequency of 1x per 12 months) to demonstrate the suitability and effectiveness of the feed safety management system and to evaluate whether continuous improvement in the effectiveness of the feed safety management system is feasible. This must include monitoring and measurement data from other relevant sources (including internal/external audits, complaints, records, evaluations).

The analysis of the data must provide information with respect to:
a. compliance with transport requirements (see section 7.3.);
b. characteristics and trends of the transport including opportunities for preventive measures, and
c. the suppliers.

NOTE: The result of this analysis partly forms the input for the management review (see section 5.5.2)

8.4 Improvement

8.4.1 Continual improvement

The participant shall continually improve the effectiveness of the feed safety management system through the use of the feed safety policy, feed safety objectives, audit results, analysis of data, corrective and preventive actions and management review.

8.4.2 Corrective actions

The participant must take action to eliminate the cause of non-conformities in order to prevent recurrence. Corrective actions must be appropriate to the effects of the non-conformities encountered.

A documented procedure must be established to record requirements for:
a. reviewing non-conformities (including customer complaints);
b. determining the causes of these non-conformities;
c. evaluating the need for action to ensure that non-conformities do nor recur;
d. determining and implementing action needed;
e. records of the results of action taken (see section 4.2.4), and
f. reviewing corrective action taken.

8.4.3 Preventative action

The participant must determine measures to eliminate the causes of potential non-conformities in order to prevent their occurrence. Preventive actions must be appropriate to the effects of the potential problems.

A documented procedure must be established to record requirements for:
a. determining potential non-conformities and their causes;
b. evaluating the need for action to prevent non-conformities;
c. determining and implementing action needed;
d. records of the results of action taken (see section 4.2.4), and
e. reviewing preventive action taken.

8.4.4 Early warning procedure

The participant has a documented procedure for the (early) signalling and treatment of signals which indicate that the safety of a feed might not match the legal standards or the standards established in the GMP+ Feed safety Assurance module and which might lead to damage to subsequent links in the chain.

Signals are assessed on this basis and if desired control measures must be taken to prevent or to control the hazard which has been signalled.

If there is a potential hazard which cannot be controlled by the participant in question and which may also cause damage to others then the participant is obliged to inform the GMP+ International. This must be done in accordance with GMP+ BA5 *Minimum Requirements EWS*.