

European Code to good practice for the industrial manufacture of safe feed materials



Sectors covered by this Code

The following sector specific sector documents have been developed by the respective sector organisations in cooperation with EFISC:

AAF	Sector reference document on the manufacturing of safe feed materials from starch processing
FEDIOL	Sector reference document on the manufacturing of safe feed materials from oilseed crushing and vegetable oil refining
EBB	Sector reference document on the manufacturing of safe feed materials from Biodiesel processing

The EFISC certification scheme is open to other manufacturers producing feed materials by the development of a sector specific document.

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1 INTRODUCTION



This European Code of good practice for the industrial manufacture of safe feed materials is in line with the Regulation of the European Parliament and the Council laying down requirements for feed hygiene (Regulation 1831/2003/EC), in particular articles 20 to 22 which encourage the development of guides to good practice on hygiene and the application of HACCP principles.

Implementation of the Code aims to encourage measures to be put in place to ensure the safety of feed materials; the operation of businesses in accordance with European feed hygiene requirements and the Codex Alimentarius, and improved traceability.

This Code has been developed in the framework of the European Feed Ingredients Platform, EFIP: www.efip-ingredients.org in consultation with the compound feed manufacturers association, FEFAC (See Appendix 1 for more details). This Code has been developed in the spirit of being comparable and/or compatible with other guides or codes of practice, in line with the *EFIP Feed Ingredients standard for sector guides (Benchmark Code)*¹. This benchmark code is meant to serve as a transparent and objective basis for comparison and mutual recognition of feed safety management systems.

Livestock production plays an important role in agriculture in the European Community. Its viability depends on consumer trust in the safety of the animal products produced and on the availability of feed that has no adverse effect on the health of the animals kept.

The European Union has established a very robust regulatory system that aims to ensure safety throughout the feed chain. This regulatory system comprises general principles for the operators and authorities involved hygiene rules for the operators, norms for the safety of feed products and rules for controls by

¹ See www.efip-ingredients.org/Default_files/page0001.htm

authorities. This new legal framework provides for the necessary harmonisation of feed safety rules at the level of the European Community. The goals set can only be met with the full commitment of the operators involved. Sector associations can play a role in supporting their operators in achieving these goals.

It is a basic principle of food/feed law that each operator in the chain must accept its own responsibility in providing safe products. The legislation prescribes the measures which the operator must implement to achieve this. The operator will apply these generically formulated rules and, by doing this, the operator adapts the rules to serve feed safety from a company perspective. This activity can be harmonised at sector level, the result of which should be transparent to all partners in the chain. The *founding principle* of this Code is therefore *subsidiarity of food and feed chain safety* and self-management of feed safety.

Provisions of this Code were developed in line with the current provisions of guidance documents already or in progress of being applied by several sectors of the European feed chain. This Code was also developed in line with most of the management precepts laid down in ISO22000:2005.

This Code is aimed to ensure an equivalent level of protection against feed hazards, as foreseen in the legislation.

The fact that the HACCP approach as a food hazard control management tool has been widely and successfully implemented in food processing plants has highlighted its potential to adopt a similar approach within the feed industry. But HACCP principles alone are not self-sufficient and if the benefits of such an approach are to become a reality, this must be backed-up by a management system, traceability procedures (as laid down in Regulation (178/2002/EC) and communication between feed business operators and a given sector. Such approach requires internal monitoring and control of all feed production and distribution steps.

The text of the Code is designed to set out general requirements and to be used by operators as a reference tool when to develop their feed materials safety management system.

This Code will be submitted to periodical review in line with emerging/ new relevant technological, scientific and legislative developments or statutory modifications in the sectors.

Running side by side with the Code EFISC Aisbl has developed a parallel and independent certification system that is described in the Rules for Certification document. Participation in the EFISC auditable system is based on voluntary commitment.

Please, consult the EFISC web-page www.efisc.eu to have access to these documents and learn more about how to ensure compliance with this Code of Practice.

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The following sector documents are available:

APPENDIX 4: SECTOR REFERENCE DOCUMENT ON STARCH PROCESSING.

APPENDIX 5: SECTOR REFERENCE DOCUMENT ON OIL AND OILSEED PROCESSING.

APPENDIX 6: SECTOR REFERENCE DOCUMENT ON THE MANUFACTURING OF SAFE FEED MATERIALS FROM BIODIESEL PROCESSING

2 SCOPE, PURPOSE AND DEFINITIONS

2.1 Scope and purpose: use of this Code

This document is referred to as the EFISC Code to good practice for the industrial manufacture of safe feed materials. It is part of the EFISC feed safety assurance scheme.

The aim of this Code is to ensure safety of feed materials by:

- Minimizing the risk, that unsafe feed materials enter the feed chain.
- Enabling an operator to implement the objectives of the feed hygiene regulation (Regulation 183/2005/EC).
- Providing measures to ensure that other applicable feed safety regulatory requirements are met.

This Code covers the industrial manufacturing of feed materials starting from the entry point of incoming materials, including the purchasing of raw materials related to feed material manufacturing, plant storage, manufacturing, sales and transport of the product produced, until the point of transfer of ownership.

This Code does not cover primary production, production of additives or the trading in feed materials.

All feed materials placed on the market by the manufacturer are EFISC certified or have been certified according to an EFISC recognised scheme.

The use of the Code is limited to manufacturers of feed materials producing sectors who have developed a sector specific document, approved and recognised by EFISC Aisbl.

This Code was developed to meet the legitimate expectation of the compound feed industry to operate with safety-committed feed materials producers.

This Code can only be applied by operators that produce feed materials on an industrial scale (hereafter "operator"). It is a publicly available document and its content can be voluntarily followed by any such producer.

Compliance with this Code does not exonerate the operator from compliance with the EU and National regulatory requirements in each country in which the operator is active and the product is placed on the market.

The manufacturer of the feed materials remains responsible for the safety of the feed materials within the scope of this Code.

2.2 Structure of the EFISC feed material safety assurance scheme

The EFISC scheme consists of the following documents:

- a) EFISC Code to good practice
- b) Sector specific documents
- c) EFISC Rules of Certification

The sector specific documents are an integral part of the EFISC Code, developed by the responsible European feed material producing sector organisations. The sector documents provide examples on the products, hazards, processes, risk assessments and control measures. The sector documents are approved by the respective European sector organisation and EFISC. Codes of practice referred to in the sector documents are a component of the feed safety assurance system.

The documents are available on the EFISC Aisbl website (www.efisc.eu).

The EFISC Code is building on the respective EU legislation. For an overview on the applicable legislation see chapter 7.

2.3 EFISC governance

The EFISC feed safety assurance scheme is governed by the EFISC Aisbl, a non profit organisation, based in Brussels, Belgium. The EFISC Aisbl consists of a daily management unit, a technical committee, the EFISC Board of Directors and the EFISC General Assembly.

The daily management unit manages the scheme, its development, communication and promotion with the stakeholders involved.

The EFISC technical committee reviews and updates the EFISC documents in order to meet the legal requirements, developments in good practice and technological developments. This process happens in dialogue with the feed safety working groups of the relevant European sector organisations and the licensed certification bodies.

The EFISC Board instructs the daily management unit and technical committee and reviews and approves the work done.

Members of the management unit, technical committee, EFISC Board and EFISC GA are selected for their expertise and experience in feed material safety.

2.4 Exclusion of requirements

It might be possible that certain requirements in this Code do not apply to the operator. If the operator has performed a risk assessment which proves that the requirement is not applicable and/ or relevant the requirement can be excluded. The findings of the risk assessment have to be available and documented. The exclusion of requirements may under no circumstances hamper the compliance

with the feed safety requirements in the European and National legislation and the EFISC Code.

2.5 Registration of the operator

The feed material business operator shall register any establishment under their control, active in any stage of feed material production, in line with Reg. 183/2005 EC.

2.6 Definitions applicable to this Code

The following definitions are used in the Code and associated annexes:

2.6.1 Legal Definitions

a) For the purpose of this document:

Batch: identifiable quantity of feed determined to have common characteristics, such as origin, variety, type of packing, packer, consignor or labelling; and in case of a production process a unit of production from a single plant using uniform production parameters or a number of such units, when produced in continuous order and stored together (Regulation 767/2009/EC).

Establishment: any unit of a feed business(Regulation 183/2005/EC).

Feed (or feeding stuff): any substance or product, including additives, whether processed, partially processed or unprocessed, intended to be used for oral feeding to animals (Regulation 178/2002/EC).

Feed additives: substances, micro organisms or preparations, other than feed material and premixtures, which are intentionally added to feed or water in order to perform, in particular, one or more of the following functions:

- Favourably affect the characteristics of feed;
- Favourably affect the characteristics of animal products;
- Favourably affect the colour of ornamental fish and birds;
- Satisfy the nutritional needs of animals;
- Favourably affect the environmental consequences of animal production;
- Favourably affect animal production, performance or welfare, particularly by affecting the gastro-intestinal flora or digestibility of feeding stuffs; or
- Have a coccidiostatic or histomonostatic effect.

(Regulation 1831/2003/EC and Regulation 183/2005/EC).

Feed business: any undertaking whether for profit or not and whether public or private, carrying out any operation of production, manufacture, processing, storage, transport or distribution of feed including any producer producing, processing or storing feed for feeding to animals on his own holding; (Regulation 178/2002/EC and adapted). See 'Stages of production, processing and distribution'.

Feed business operator: the natural or legal persons responsible for ensuring that the requirements of food/feed law are met within the feed business under their control. (Regulation 178/2002/EC and adapted). See 'Feed business'.

Feed hygiene: the measures and conditions necessary to control hazards and to ensure fitness for animal consumption of a feed material, taking into account its intended use (Regulation 183/2005/EC).

Feed materials: various products of vegetable or animal origin, whose principal purpose is to meet animals' nutritional needs, in their natural state, fresh or preserved, and products derived from the industrial processing thereof, and organic or inorganic substances, whether or not containing feed additives, which are intended for use in oral animal feeding either directly as such, or after

processing, in the preparation of compound feeding stuffs or as carriers of premixtures (Regulation 767/2009/EC).

First placing on the market: the initial placing on the European Union market of a feed material after its manufacture or the import of a feed material (Regulation 1831/2003/EC and adapted).

Food (or Foodstuffs): any substance or product, whether processed, partially processed or unprocessed, intended to be, or reasonably expected to be ingested by humans.

'Food' includes drink, chewing gum and any substance, including water, intentionally incorporated into the food during its manufacture, preparation or treatment.

'Food' shall not include: feed; live animals unless they are prepared for placing on the market for human consumption; plants prior to harvesting; medicinal products; cosmetics; tobacco and tobacco products; narcotic or psychotropic substances; residues and contaminants (Regulation 178/2002/EC).

Hazard: biological, chemical or physical agent in the feed chain with the potential to cause an adverse health effect (Regulation 178/2002/EC).

Labelling: means the attribution of any words, particulars, trademarks, brand name, pictorial matter or symbol to a feed by placing this information on any medium referring to or accompanying such feed, such as packaging, container, notice, label, document, ring, collar or the Internet, including for advertising purposes (Regulation 767/2009/EC).

Operator: see feed business operator.

Placing on the market: means the holding of food or feed for the purpose of sale, including offering for sale or any other form of transfer, whether free of charge or not, and the sale, distribution, and other forms of transfer themselves (Regulation 178/2002/EC).

Processing aids: any substance not consumed as a feeding stuff by itself, intentionally used in the processing of feeding stuffs or feed materials to fulfil a technological purpose during treatment or processing which may result in the unintentional but technological unavoidable presence of residues of the substance or its derivatives in the final product, provided that these residues do not have any adverse effect on animal health, human health or the environment and do not have any technological effects on the finished feed (Regulation 1831/2003/EC).

Risk: a function of the probability of an adverse health effect and the severity of that effect, consequential to a hazard (Regulation 178/2002/EC).

Risk assessment: means a scientifically based process consisting of four steps: hazard identification, hazard characterisation, exposure assessment and risk characterisation (Regulation 178/2002/EC).

Stages of production, processing and distribution: any stage, including import, from and including the primary production of a food, up to and including its storage, transport, sale or supply to the final consumer and, where relevant, the importation, production, manufacture, storage, transport, distribution, sale and supply of feed (Regulation 178/2002/EC).

Traceability: the ability to trace and follow a food, feed, food producing animal or substance intended to be, or expected to be incorporated into a food or feed through all stages of production, processing and distribution (Regulation 178/2002/EC).

Undesirable substances: any substance or product, with the exception of pathogenic agents, which is present in and/or on the product intended for the animal feed and which presents a potential danger to animal or human health or to the environment or could adversely affect livestock production (Directive 2002/32/EC).

b) In this document the terms 'where necessary', 'where appropriate', 'adequate' and 'sufficient' shall mean respectively where necessary, where appropriate, adequate or sufficient to achieve the objectives of this Code (Regulation 852/2004/EC and adapted).

2.6.2 Other definitions

For the purpose of this document:

Calibration: the demonstration that a particular instrument or device produces results within specified limits by comparison with those produced by a reference or traceable standard over an appropriate range of measurements.

Check/control: the state wherein correct procedures are being followed and criteria are being met (Codex Alimentarius).

Code of Practice: document identifying the principles of feed hygiene essential to ensure the safety of feed for animals and in turn the safety of animal products intended for human consumption.

Contaminant: any biological or chemical agent, foreign matter, or other substances not intentionally added to food or feed which may compromise food and/or feed safety or suitability (Codex Alimentarius and adapted).

Contamination: the introduction or occurrence of a contaminant in food/feed or food/feed environment (Codex Alimentarius and adapted).

Control Measure: any action and activity that can be used to prevent or eliminate a feed / food safety hazard or reduce it to an acceptable level (Codex Alimentarius and adapted).

Corrective Action: any action to eliminate the cause of a detected non-conformity or other undesirable situation (ISO 22000:2005).

Cross-Contamination: contamination of a material or product with another material or product.

Critical Control Point (CCP): a step at which control can be applied and that is essential to prevent or eliminate a feed / food safety hazard or to reduce it to an acceptable level (Codex Alimentarius and adapted).

Critical Limit: a criterion that separates acceptability from unacceptability (Codex Alimentarius).

Feed Safety: high level of assurance that the feed or the feed material will neither cause harm to the farm animals when prepared or consumed according to the intended use, nor to the final consumer. Throughout the Code, the word 'safety' is taken to have the same meaning as 'Feed Safety'.

Flow diagram: a systematic representation of the sequence of steps or operations used in the production or manufacture of a particular food or feed item (Codex Alimentarius and adapted).

HACCP (Hazard Analysis and Critical Control Point): a system which identifies, evaluates, and controls hazards to feed safety (Codex Alimentarius and adapted).

Hazard analysis: the process of collecting and evaluating information on hazards, and conditions leading to their presence, to decide which are significant for feed safety and therefore shall be addressed in the HACCP plan (Codex Alimentarius).

Incoming material: a general term used to denote raw materials/ products delivered at the beginning of the production chain.

Intermediate product: any material which has been processed by the operator before the final product is obtained.

Manufacture/production: all operations encompassing receipt of materials, processing, packaging, repackaging, labelling, relabeling, quality control, release, storage, and distribution of feed materials and related controls.

Operational PRP

Operational prerequisite programme

PRP identified by the hazard analysis as essential in order to control the likelihood of introducing feed/food safety hazards to and/ or the contamination or proliferation of feed/ food hazards in the products or in the processing environment(ISO 22000:2005 and adapted).

Plan: to establish the objectives and processes necessary to deliver results in accordance with the operator's policies regarding quality and safety.

PRP

Prerequisite Program: feed/ food safety basic conditions and activities that is necessary to maintain a hygienic environment throughout the feed/ food chain suitable for the production, handling and provision of safe end products and safe feed/ food for animal and following human consumption. Alternative terms for PRPs may be used. For instance, the terms Good Manufacturing Practice (GMP), Good Agricultural Practice (GAP) and Good Hygienic Practice (GHP). (ISO 22000:2005 and adapted).

Procedure: a specified way to carry out an activity or a process (ISO 9000:2005).

Quality: degree to which a set of inherent characteristics fulfils requirements (ISO 9000:2005).

Raw material: any material which enters the manufacturing process of the feed material.

Record: document stating results achieved or providing evidence of activities performed (ISO 9000:2005).

Requirement: need or expectation that is stated, generally implied or obligatory (ISO 9000:2005).

Rework: action on a nonconforming product to make it conform to the requirements (ISO 9000:2005).

Safety: see feed safety.

Shelf life: a defined time period for which a product fully complies with its specification if stored appropriately.

Sign / Signature: confirmation of an authorized person in writing or by electronic means with controlled access.

Specification: document stating requirement (ISO 9000:2005).

Validation: obtaining evidence that the control measures will be effective (ISO 22000:2005).

Verification: confirmation, through the provision of objective evidence that specified requirements have been fulfilled (ISO 22000:2005).

Written documents: paper printed documents. These may be substituted by electronic, photographic, or other data processing systems provided that the data will be appropriately stored during the anticipated period of storage (archive) and can be made readily available in a legible form.

3 REQUIREMENTS ON THE FEED SAFETY MANAGEMENT SYSTEM

Any feed safety management system applied by the operator should be based on the **four** following pillars:

- 1) Interactive communication within the organisation and upstream and downstream in the food chain.
- 2) A management system based on a process approach and customer focus.
- 3) A prerequisite program to assist in controlling the likelihood of introducing hazards to feed products through the work environment, feed production process, input and incoming materials, workers hygiene, and cross contamination between products. The application of those good manufacturing practices shall include the feed hygiene requirements set in the EU Regulation (183/2005/EC) and related texts. The prerequisite programme shall be established, implemented and maintained regularly according to best hygienic practices.
- 4) An HACCP (Hazard Analysis Critical Control Points) system effectively put in place, implemented, documented and maintained. The HACCP system in feed materials production should take into account the seven principles set in the Codex Alimentarius. The hazard analysis is useful to identify all relevant hazards, of which some may be managed through the prerequisite program (PRP/ OPRP's) and others be put under control of specific CCPs as set out in the HACCP system.

HACCP and prerequisite program are dynamically interacting.

The pillars above may be combined into one single management system, such as required by ISO 22000:2005.

4 MANAGEMENT SYSTEM

4.1 Management responsibility

4.1.1 Management commitment, responsibility and policy

The management (from the higher management to the lower management) shall be committed to the implementation of the Code in order to help ensure the feed safety of the products.

Management shall ensure that responsibilities and authorities are defined, documented and communicated within the organization.

The management shall:

- a) Establish a feed safety policy, ensure that objectives are established and communicate the policy throughout the organisation.
- b) Ensure that these objectives and policies are in compliance with this Code and regulatory requirements.
- c) Define and document the scope of the **feed safety management system**, by identifying the product categories, production sites/ process lines and outsourced activities which are covered by the system.
- d) **Identify all other relevant activities at the location which might cause a risk for feed material production**
- e) **Ensure crisis management is in place with defined responsibilities.**

Staff appointed by management shall have defined responsibility and authority to:

- a) Identify and record any problems with regard to product safety and the operator's **feed safety management system**.
- b) Initiate remedial measures and control of any such problems.
- c) Initiate action to prevent the occurrence of nonconformities relating to product safety.

4.1.2 HACCP team leader: responsibility, authority and communication

Management shall appoint a HACCP-team leader who, irrespective of other responsibilities, shall organize the work of a HACCP-team and shall have the responsibility and authority to:

- a) Ensure that the feed safety management system is established, implemented, maintained and updated in accordance with the requirements in this Code and the regulatory requirements.
- b) Report directly to the organization's management on the effectiveness and suitability of the management system.
- c) Arrange relevant training and education of the HACCP-team members.

The HACCP-team leader shall be a management representative or have direct access to management.

Management shall provide adequate resources for the establishment, implementation, maintenance, updating and control of the feed safety management system. Adequate communication shall be in place to inform the HACCP team (leader) of significant changes in products or processes.

4.1.3 Management review

The management shall document verification measures taken to ensure that the feed safety management system is working effectively. These shall include planning, implementation and monitoring of processes which demonstrate product conformity. Monitoring processes shall include collection of measurements, analysis of data and, if relevant, measures to improve the effectiveness of the system

A documented procedure shall define the structure(s) to identify and manage corrective measures, including:

- a) Analysis of the cause of the non-conformity.
- b) Definition of the corrective measure.
- c) Tracking of the realisation of the measure.
- d) Verification of the effectiveness of the measure, where appropriate.

All of the above steps shall be demonstrable by e.g. records or minutes of meetings.

Annually, the management shall review the implementation, effectiveness and validity of the feed safety management system by evaluating:

- a) Actions resulting from previous management reviews.
- b) Results of internal and external audits.
- c) Results of the HACCP-verification.
- d) Complaints and other customer feedback.
- e) Implementation of major corrective and preventive measures.
- f) Changes that could have an impact on the validity of the feed safety management system.

The output of the review shall address:

- a) Conclusions on the implementation, effectiveness and validity of the feed safety management system.
- b) Actions and objectives to improve the feed safety management system.

The report of the review shall be readily available.

4.2 Resource Management

4.2.1. Provision of resources

The management shall identify and provide the necessary resources so that all activities within the scope of this Code are carried out in a manner such that the feed material is safe.

Feed materials businesses must have sufficient staff possessing the skills and qualifications necessary for the manufacture of the products concerned.

Management shall provide sufficient and appropriately designed infrastructure, work environment facilities, production areas and equipment.

4.2.2 Human resources

4.2.2.1 Organisational chart

The management shall establish an organisational chart. The responsibilities regarding feed safety shall be documented and kept updated.

4.2.2.2 Competency, awareness and education

All personnel carrying out activities affecting feed safety shall be competent and have the appropriate education, training, skills and experience according to the job description. The job description will be communicated to the employees responsible. Training programmes should be routinely reviewed and updated, where necessary.

The management shall:

- a) Identify and define clearly the necessary skills and competences for personnel whose activities have an impact on feed safety in the job description.
- b) Provide the necessary education and/or training according to the job description to ensure and maintain the fulfilment of these necessary skills, including an introduction to HACCP principles.
- c) Ensure that personnel responsible for monitoring feed safety processes are trained in proper monitoring techniques and the necessary actions to be taken when there is a loss of control of the processes.
- d) Evaluate the effectiveness of the activities above.

- e) Ensure that the personnel are aware of the relevance and importance of their individual activities in contributing to feed safety.
- f) Ensure that personnel are aware of the necessity of effective communication.
- g) Maintain appropriate records of education, training, skills and experience of all personnel having an impact on feed safety.

4.2.2.3 Personal hygiene

The management shall have a documented personal hygiene programme in place based on a risk assessment; these requirements shall also apply for visitors and contractors.

The management shall:

- a) Ensure that personnel hygiene facilities are clearly and suitably designated, located and maintained.
- b) Provide appropriate work wear such as protective clothing and safety footwear, where necessary and maintain them in hygienic conditions.
- c) Clear rules on no- smoking and no- eating/drinking on site. If necessary, provide separate facilities for these.
- d) There shall be written procedures for actions to be taken in case of a medical condition that might endanger the safety of the feed material or the suspicion thereof.
- e) Ensure that visitors and contractors respect the requirements regarding hygiene when visiting/ working on the site.

4.2.3 Infrastructure and work environment

The management shall provide the resources for the establishment and maintenance of the infrastructure needed to achieve conformity with the requirements of the feed safety management system.

4.2.3.1 Basic requirements

The management shall provide appropriate work environment in line with local, National and European Regulations and the requirements in the EFISC Code in order to achieve product conformity.

4.2.3.2. Requirements for loading, storage, production areas and other feed material related facilities

The management shall provide facilities of the appropriate lay-out, design, construction and size, be such as to avoid contamination, cross-contamination and any generally adverse effects on the safety of the feeds.

The management shall ensure the following:

a) Exteriors

The factory environment shall be maintained orderly and clean. A system should be in place to avoid contamination by animals. Access on the site will be controlled in order to avoid unauthorised entry to the production, storage and shipping areas.

The management shall take into account to what extent the factory environment and nearby activities may have an adverse effect on feed material safety. Measures to protect against possible sources of contamination shall be taken and documented

b) Buildings

The management shall provide buildings in good repair, fit for their purpose and allowing for inspection.

c) Floors, walls, overhead fixtures and ceilings

Floors, walls, overhead fixtures and ceilings shall be designed, constructed and finished to:

1. Meet the production requirements
2. Avoid the risk of contamination
3. Prevent the accumulation of dirt
4. Reduce condensation
5. Avoid the growth of undesirable microorganisms
6. Avoid the shedding of particles
7. Facilitate cleaning

d) Drainage facilities

Drainage facilities must be adequate for the purpose intended; they must be designed and constructed to avoid the risk of contamination.

e) Doors and Windows

Doors, windows and other openings shall be constructed to avoid the entree of pests, moisture and foreign matter. If windows can be opened pest fences should be installed. Doors and windows shall be designed to facilitate cleaning. Doors shall be kept closed.



f) Lighting

Sufficient lighting will be provided throughout the facilities and production areas in order to allow personal to operate in a hygienic manner and to carry out their feed safety responsibilities. Where there is a risk of contamination from breakages lighting equipment shall be shatter proof.

g) Ventilation

Ventilation of sufficient capacity shall be provided to keep rooms free of excessive steam and condensation.

4.2.3.3. Equipment

The management should provide manufacturing equipment, located, designed, constructed and maintained to suit the manufacture of safe feed materials. The equipment shall be used and stored so as to minimize feed safety risks.

Where applicable, equipment must be placed away from walls to allow easy access for operation, cleaning and maintenance and to prevent pest infestation.

4.2.4 Control of monitoring, measuring and dosing devices

The management shall ensure that monitoring and measurement can be carried out in a manner consistent with documented procedures. Where necessary to ensure valid results, measuring and dosage equipment shall:

- a) Be calibrated or verified at specified intervals, based on a risk assessment, or prior to use, against measurement standards traceable to international or national measurement standards. Dosing devices shall be calibrated at least once a year in case the risk assessment shows a risk for feed safety. Where no standards exist, the basis for calibration or verification shall be recorded.
- b) Be adjusted or re-adjusted as necessary.
- c) Be identified to enable the calibration status to be determined.
- d) Where possible, be safeguarded from adjustments that would invalidate the measurement result.
- e) Be protected from damage and deterioration during handling, maintenance and storage.

In addition, the management shall assess and record the validity of the previous measuring results when the equipment is found not to conform to requirements. The management shall take appropriate action. Records of the results of calibration and verification shall be maintained.

4.2.5 Maintenance

Maintenance activities may not have a negative impact on feed safety.

The operator shall provide planned maintenance in the factory. A plant maintenance program shall be in operation addressing the facility and equipment. A record shall be kept of work carried out.

Lubricants used have to be food grade where applicable.

After maintenance activities and before starting the production a procedure should be in place to ensure good hygiene practices.

4.2.6 Cleaning, disinfection and sanitation

The management shall install a documented cleaning program. Effectiveness of the program shall be demonstrated.

Ensure that all inside and outside areas, buildings, facilities and equipment are kept clean and in good state to function as intended and to prevent contamination.

The equipment must be designed to facilitate manual or CIP cleaning.

Containers and equipment used for the transport, storage, conveying, handling and weighing of feed materials shall be kept clean.

A schedule shall be implemented with method, agents used and frequency of cleaning including responsibilities for the tasks. The cleaning methods shall be adapted to the nature of the substances to be removed. A qualified person will verify the correct implementation of the cleaning schedule.

Cleaning agents and disinfection agents used shall be suitable for its purpose, food grade when needed and authorised in the country of use. The agents shall be stored separately according to the manufacturer's instruction(s), clearly labelled, and applied properly to avoid contamination of the products.

Cleaning utensils shall be suitable for their purpose, maintained and stored, in order to avoid the risk of contamination.

4.2.7 Pest control

The management shall provide a written plan for pest control including description of periodic inspections. Effectiveness of the plan shall be demonstrated and documented.

A schedule shall be implemented with areas, facilities and equipment to be inspected including frequency as well as details of pesticides, fumigation agents or traps used as well as responsibilities for the tasks.

Pest control products used shall be suitable and comply with local regulations for the purpose concerned, used and stored according to the manufacturer's instruction, clearly marked and separately stored from incoming materials and feed materials and applied properly to avoid contamination of incoming materials and feed materials.

The positions of traps and bait stations shall be mapped.

The HACCP plan shall consider the risk of contamination due to infestation or use of pesticides.

Spoilage and dust shall be controlled to prevent pest invasion.

When there is a potential for pest contamination external opening windows, roof vents or fan, where present, shall be insect screened. External opening doors shall be closed or screened when not in use.

The results of the pest control are part of the yearly management review.

4.2.8 Waste control

The operator shall control waste and materials containing hazardous levels of contaminants or other hazards. These shall be disposed of in an appropriate way to prevent contamination of the feed materials.

Where necessary to prevent such hazards:

- a) Dispose in a manner which avoids contamination.
- b) Store waste in closed or covered containers at defined waste accumulating areas.
- d) Waste containers should be clearly marked.
- e) Waste shall be disposed of according to local Regulations and in a manner which ensures that equipment and the safety of feed materials are not affected.

4.2.9 Water, steam and air supply

Water, steam and air used and re-used in feed materials manufacture shall be of suitable quality at all stages. The management must be sure that the water, steam or air which is used in the production of the feed materials is safe for animals.

The management must include water, boiler chemicals, steam and air in the risk assessment.

4.3 Operational rules

4.3.1 General

The management shall implement all manufacturing activities in line with this Code.

4.3.2 Incoming materials requirements

The management should place special emphasis on ensuring that incoming materials comply with EU, National legislation and the requirements mentioned in this standard.

A documented entry check program on purchasing and approval of the incoming material should be in place.

Under the EFISC scope incoming materials are purchased for the manufacturing of food or feed materials.

The documented **entry check program** shall contain the following elements:

- 1) A product specification shall describe the incoming material to be purchased ([See § 6.4](#)).
- 2) A risk assessment will be performed (See chapter 6 and the relevant sector document).
- 3) Requirements for analytical monitoring (sampling, frequency, inspection) shall be defined (See [chapter 6](#), [§4.4.3](#), sector document- minimum requirements).
- 4) Sampling and analysis will be carried out ([See § 4.4.3](#)).
- 5) The check on compliance should be made and documented.
- 6) When necessary corrective actions, based on the outcome of the findings ([See §4.4.4](#)).
- 7) Records of any relevant analytical and monitoring results and necessary actions arising from that evaluation shall be maintained.
- 8) The outcome of the monitoring will be used for the review of the risk assessment.

4.3.2.1 Processing aids and additives for production of feed materials

The incoming material is purchased for the manufacturing of processed feed materials (processing aids, additives).

The incoming material can originate from:

a. Certified source (Preferable situation)

The product shall preferably be purchased from a certified source in compliance with one of the relevant standards ([See Annex 3](#) list recognised standards).

The manufacturer shall conduct the entry check programme ([See § 4.3.2](#)).

These suppliers must be identified and their certification status verified on at least an annual basis and before taking effective delivery. The actual certification status of the supplier can be found on the respective scheme owner's website.

b. Non- certified source

The incoming materials are purchased from a non- certified source. The manufacturer becomes the start of the feed chain and a gate keeper procedure becomes a pre- requisite ([See § 4.3.2.2](#)).

4.3.2.2 Gatekeeper protocol (processing aids, additives from non-assured source)

When purchasing materials from a non- assured source the manufacturer shall:

- a) Prepare a case file for each purchase. The case file will contain the following:
 - 1) The contract with the supplier. The contract will include the requirements for the incoming material, storage and transport ([§4.3.10](#) and [§4.3.11](#)).
 - 2) The requirements and outcome of the entry check programme described under [§4.3.2](#).
 - 3) Results of audits made, if applicable, based on a risk assessmentThe case file must be completed before the first delivery takes place.
- b) Control the incoming product according to the entry check plan and carry out release sample testing (See [§4.3.2](#), [§4.4.3](#)).
- c) Integrate the supplier into the supplier evaluation.

4.3.3 Handling of incoming materials

The management shall make sure that each batch entering the site shall be uniquely registered by means of a batch number, full name of product, date of receipt and quantity received. A first visual and physical check of the raw material will be performed. Any damage shall be reported to an appropriate responsible unit, e.g. the quality control unit.

For incoming material a receipt and storage procedure must be in place. If silos are emptied, this shall be recorded

Incoming materials should be checked in accordance with the entry check program ([See § 4.3.2](#))

Samples of the incoming materials should be retained in sufficient quantity using a procedure pre-established by the manufacturer and be retained, in order to ensure traceability. The samples must be sealed and labelled for easy identification; they must be stored under conditions which prevent any abnormal change in the composition of the sample or any adulteration. They must be kept for a period appropriate to the use for which the feed material is placed on the market ([See § 4.4.3](#)).

4.3.4 Measures for the prevention of cross contamination

The operator shall have a program in place to prevent, control and detect cross contamination in order to reduce the risk of contamination of feed with other products.

4.3.5 Measures for the prevention of contamination

The operator shall have a program in place to prevent, control and detect contamination. It shall include measures in order to prevent physical, chemical and microbiological contamination. The factory environment, facilities and equipment are constructed, maintained and operated in such a way to minimize the possibility of contamination.

4.3.6 Processing Aids and Technological Additives

The participant must ensure that the use of processing aids or (technological) additives does not adversely affect the feed safety

4.3.7 Rework

The management shall handle rework in a way to ensure that feed material safety, traceability and regulatory compliance are maintained.

The approval and use of reworks (e.g. from rejects, customer returns or spillage) shall be considered within the HACCP system. Potential reworks which are not approved for the intended use are managed in accordance with non-confirming product (See §4.4.4) and if they become waste material, they should be dealt with according to waste disposal procedures (See §4.2.8), unless they are directed to an industrial application.

4.3.8 Production of feed materials

Management shall ensure the availability of work instructions:

- a. The different stages of production shall be carried out according to written procedures aimed at defining, controlling and monitoring the critical points in the manufacturing process.
- b. These shall include procedures to address the risk of carryover.

The management shall plan and carry out production and service provision under controlled conditions. Production areas shall be controlled so that access for non-authorised personnel can be prevented.

4.3.9 Finished feed materials

The management should provide, as applicable, information that describes the following:

- a. Each product shall have a written specification. (See §6.4)
- b. Each product shall have a unique name or code.
- c. Each batch shall be labelled by a unique identifier (which can be a combination of codes) in order that it can subsequently be identified and traced. Labelling shall be in accordance with the relevant EU feed legislation.

All feed materials should be inspected prior to dispatch, in accordance with written procedures, to ensure it meets specification. A retention sample of adequate size shall be taken of each batch and must be kept for a period appropriate to the use for which the feed material is placed on the market with a minimum time period of three months.

- d. The samples must be sealed and labelled, stored in a manner that should prevent abnormal change.

If products are rejected and thus not put into circulation for any reason related to product safety, their disposal, destination, or return to supplier shall be recorded.

4.3.10 Storage

The management shall control and document all storage activities of the incoming materials, processing aids, waste materials, non-conforming materials and feed materials in order to allow for easy identification, product control, minimize deterioration and avoid cross-contamination.

Rules controlling storage:

- a. Incoming materials shall be clearly identified and stored in suitable designed places, adapted and maintained, in order to ensure appropriate storage conditions which manage the risks of contamination and possible infestation by harmful organisms. Packed materials shall be stored in appropriate packaging.
- b. Feed materials shall be clearly identified and stored under clean and suitable conditions.
- c. Chemicals (detergents, pesticides, lubricants, technical products) not intended for feed materials inclusion shall be clearly identified and stored separately and secured.
- d. Waste material and non conforming materials shall be clearly identified and stored separately.
- e. In a situation that a storage unit contains a non conforming product it will be handled according to §4.4.4. Once the storage unit is emptied, the cleanliness of the unit will be verified and documented before a new product will enter (see §4.2.6).
- f. Specified stock rotation systems shall be applied when applicable to ensure materials are used in the right order and within the prescribed shelf live.
- g. If a manufacturer hires external storage services he shall preferably make use of certified storage. [See annex 3](#).
If his is not the case all the requirements applicable for the storage in this Code shall be part of the contract.
- h. The operator shall control the outsourced activities.

4.3.11 Transport

4.3.11.1 General transport requirements

Transportation of feed materials, whether bulk or packed, by road, river, rail or sea should be sufficiently controlled to ensure compliance with this Code and the legal requirements for the transportation of feed materials in order to guarantee a safe product to the customer.

Whatever means of transport is used, the transport contractor and the transporter are responsible for ensuring that the vehicle and equipment used for transport conforms to feed safety requirements.

Impurities that are hazardous to humans or animals may get in contact with the final product. Measures must be taken to ensure that the loading and transportation of the product is adequate in order to minimize the risk of chemical, microbiological and/or physical contamination of the product.

Based on a risk assessment the operator must evaluate at reasonable intervals the effectiveness of the measures taken.

4.3.11.2 Transport operation packed feed materials

The management shall ensure that in the case of transporting feed materials in sealed containers or packaging, risk assessments must consider any potential hazards and ensure that controls effectively preclude any serious risk of contamination. If the operator makes use of an external carrier for the transport of packaged feed ingredients then this external transporter does not have to be certified.

4.3.11.3 Transport operation bulk feed materials

The management shall ensure that any transport offered is suitable for transportation of the feed materials and shall apply the following general rules:

- a) Staff qualified and authorized and/ or supervisor identified for the check of the vehicle and loading compartments, before loading.
- b) Records must be available showing the previous three loads (by load compartment), the load compartment inspection and, if relevant, any cleaning operations that have been carried out.
- c) For the safety requirements as regards bulk transport by road, see the website of the International Database Transport (for) Feed ([IDTF](#)) for the relevant requirements and prescribed working and verification methods. Check the website on which products fall in to which feed safety hazard category and the appropriate cleaning and/ or disinfection measures necessary.
- d) The load compartment is empty, clean, and odourless and, if necessary, dry and free from possible contaminants from previous loads or cleaning

regimes. If this is not the case cleaning and/or disinfection measures have to be implemented.

- e) The handling equipment is clean and suitable for its purpose.
- f) The load compartment must be clearly identified and labelled. In case a vehicle has different load compartments loaded with different products each compartment will be clearly identified and labelled.
- g) Measures shall be taken in order to avoid cross contamination. After a forbidden load ([see IDTF](#)), the check release procedures as described in the GMP+ "[Procedure for the acceptance of loading compartments after the transport of prohibited loads](#)" shall be implemented.
- h) The transporter shall cover the load compartments against rain and other contamination, based on a risk assessment.
- i) The conformity of control results as well as non conformities and corrective actions must be verified, recorded and documented.
- j) In order to guarantee traceability all relevant data will be recorded. See [§ 4.4.2](#) traceability.

When the loading compartment is repeatedly used for the same feed ingredient (so-called dedicated transport) it is allowed to assess which cleaning frequency is adequate for that specific feed ingredient based on a risk assessment.

4.3.11.4 Transport by road

The following situations for the transport of feed material may apply:

a) Road transport owned by the operator

The operator shall work according to a defined procedure which ensures that the transport activity complies with the requirements in this Code (See [§ 4.3.11.1](#) & [4.3.11.2](#) & [4.3.11.3](#)).

b) Road transport by the customer

Where distribution or transport is of the responsibility of the customer the operator must take reasonable precautions to avoid potential hazards and possible contamination of the feed material.

The operator shall communicate with the customer in case of anomaly detected before loading and obtain written loading permission from the customer.

c) Road transport carried out by a sub contractor

For the transport of feed materials carried out by a sub contractor the operator shall make use of certified transport against one of the recognised, relevant schemes, unless the customer accepts non- certified transport (See [Annex 3](#) for the relevant recognised schemes).

In a country where a local certified transporter is not available the transporter shall be selected on the basis that it can satisfy product safety and reliability criteria as described (See [§4.3.11.1 & 2](#) and [§ 4.5.1](#) supplier relationship).

The operator must communicate its requirements on transportation to the transporter; these requirements shall be documented.

4.3.11.5 Water borne and rail transport

The following situations for the transport of feed material may apply:

a) Waterborne and rail transport ordered by the customer

Where distribution or transport is of the responsibility of the customer the operator must take reasonable precautions to avoid potential hazards and possible contamination of the feed material. (See [§4.3.11.1](#) & [§4.3.11.2](#) & [§4.3.11.3](#)).

The operator shall communicate with the customer in case of anomaly detected before loading and obtain written loading permission from the customer.

b) Waterborne and rail transport carried out by a sub contractor

For the water borne and rail transport of feed materials carried out by a sub contractor the operator shall make use of certified transport against the relevant scope of one of the recognised schemes, unless the customer accepts non-certified transport (See [Annex 3](#) for the relevant recognised schemes).

In a country where a local certified transporter is not available the transporter shall be selected on the basis that it can satisfy product safety and reliability criteria as described (See [§4.3.11.1](#) & [§4.3.11.2](#) & [§4.3.11.3](#)) and [§4.5.1](#) supplier relationship).

The operator must communicate its requirements on transportation to the transporter; these requirements shall be documented.

4.3.11.6 Inspection on loading of water borne- and rail transport

For the transport of feed materials by inland waterway, sea or rail a physical check must be taken by an authorised person (designated loading inspector) to check the cleanliness of the loading compartments and the loading equipment and process (see [§4.3.11.5](#)).

The designated inspector must be either:

- a) A designated loading inspector of an independent inspection agency accredited for ISO/IEC 17020 and certified for ISO 9001:2008 for the relevant scope of LCI and feed and performing in accordance with internationally recognised standards as FOSFA and GAFTA.
- b) An inspector assigned by the operator, who is trained and competent as a qualified loading inspector, unless specified otherwise in the contract with the customer.

The detailed findings of the inspector shall be documented in the LCI report.

4.3.12 Product and process development

The specifications of this Code must be taken in to account when developing new, or further developing existing products and processes. All feed materials have to be risk assessed before being placed on the market.

4.4 Management system components

4.4.1 Documentation requirements

The management shall maintain a feed safety management system manual that covers all aspects of this Code. All documents and records shall be easily accessible for relevant personnel and effectively controlled. Documentation and record control shall be defined in a documented procedure.

All documents of the feed safety management system manual shall be authorised, under version control and distributed in a controlled manner. The operator shall have a system in place to prohibit the use of redundant documents.

Other documents that are relevant for feed safety shall be identified and managed.

Records shall always remain up to date, legible, readily identifiable and retrievable. The management shall identify all relevant records and their archiving time period and location. The archiving time period is as a minimum period the expiry date of the products produced plus one year.

4.4.2 Traceability

The management shall establish and implement a **documented** traceability system to be able to identify incoming materials from the immediate suppliers and distribution of the feed materials product to the immediate customer as well as to enable the identification of product lots of the feed materials produced and their relation to batch numbers or codes of incoming materials.

When rework or any reworking operation is performed, traceability shall be maintained.

In the feed material industry, the traceability from reception of the raw material to the dispatch of **feed material** should reflect the nature of the production process (continuous, batch etc.).

A traceability system shall at least include:

- a) **Supplier and customer data**
- b) Codes or batches of incoming **and outgoing materials**; in-process products, packaging and chemicals.
- c) Number of tanks, silos or equipments used.
- d) Manufacturing and any operational documents applied.
- e) Time of operations and controls.
- f) Quantity and flow.

In general all records required for traceability must be kept for a period of 5 years in accordance to the EU relevant legislation in particular Regulation 178/2002 and its Guidance on the implementation of articles 11, 12, 14, 17, 18, 19 and 20 OF REGULATION (EC) N° 178/2002 ON GENERAL FOOD LAW and/or national Provisions.

Records related to traceability shall always remain up to date, legible, readily identifiable and retrievable. The management shall identify all relevant records and their archiving time period and location.

The samples of **incoming raw materials and feed** materials must be retained for a period appropriate to the use for which the feed is placed on the market. The samples must be kept in appropriate, sealed and labelled containers and be disposed of in a controlled way. The storage conditions must prevent any deterioration or damage to the samples.

Records should be maintained and readily available regarding the production, distribution and use of feed materials to facilitate the prompt trace-back of feed materials to the immediate previous source and trace-forward to the next subsequent recipients if known or probable adverse effects on consumers' health are identified.

The management shall verify the validity of its traceability procedures by an upstream and downstream traceability test at least once a year. Such test shall be documented and evaluated for improvements.

4.4.3 Inspection, sampling and analysis

The management shall have a documented system of inspection, sampling and analysis, both for control and verification, **addressing products and hazards, methods, frequency, qualifications and responsibilities.**

Such system shall be appropriate to the materials and products to be tested. The management shall demonstrably take into account relevant European and National legislation and International Guidelines, **information available from the RASFF, sector organisation data collection and suppliers.** [See table 1- page 38](#)

a) Monitoring and control

The management shall formulate the monitoring plan based on a risk assessment taking into account the frequency and the severity of each specific contaminant by product at each stage of the production and the outcome of previous analysis. Based on the outcome the specific analyse frequency will be established. ([See chapter 6](#)).

A feed material producing company operating multi sites with the same product, can in addition of their own data, make use of the analyse results available from other company sites for their risk assessment.

In case the management does not have sufficient information and data available in order to establish a risk assessment for the product/ process in question it shall apply the minimum monitoring requirements as formulated in the relevant [annex](#) of the specific sector document. This measure is applicable for the maximum period of one year. After this period a solid risk assessment shall be in place.

The monitoring plan will be reviewed on an annual basis as a minimum.

If it can be shown that a parameter does not contain a significant risk, the number of samples and analysis can be reduced. On the other hand, when the analysis results show an increased risk, the numbers of samples and analysis have to be increased and measures taken to address the cause.

The monitoring shall be systematically spread across the year.

In the case of excess the product involved will be treated as a non- conforming product. See [§4.4.4](#) Non – conforming product

On request monitoring data may be collected by the relevant feed working groups of the European sector organisation . The outcome of the collective sector monitoring will be shared with the participants on an anonymous basis.

Specific requirements for the monitoring of fats and oils on dioxin and dioxin like PCB's are described in the respective annex of the FEDIOL sector document and the [Revised FEDIOL code of practice on the safety of vegetable fats and oils in feed with regard to dioxin and dioxin-like PCBs.](#)

**Specific requirements for the monitoring of Salmonella in Oilseed Crushing Plants are described in the [FEDIOL Code of practice for the control of Salmonella](#)

b) Initial validation and/or verification of the manufacturing process

The management shall validate and/or verify the safety of the manufacturing process in order to assure the safety of the finished feed material (See§ 6.11 and §6.12).

In a situation where the manufacturing process is outside of the established critical limits the management shall take the necessary corrective action and perform intensive sampling and analysis by batch, for the relevant hazards, in order to verify the safety of the process and product. Once verified, the monitoring frequency is determined as described under a) monitoring and control.

4.4.3.1 Sampling

The person responsible for taking the samples shall have good knowledge about sampling, the manufacturing process and the safety of feed materials. The sampler will be trained for the function according to [§4.2.2.2](#)

The sampling procedures shall be adapted for:

a) Sampling of incoming , semi- finished and finished feed materials

- To control the conformity of incoming materials, semi- finished and the finished feed materials the sampling method shall represent the characteristics of the whole lot at an adequate level.
- The sample frequency will be established based on a risk assessment and the relevant EU or National requirements.
- Sample volume shall be sufficient for further testing. The sample shall be labelled, sealed and registered, allowing for easy identification.

b) Sampling for internal monitoring

- To verify the validity of other control measures, sampling the method and frequency shall be adapted to the expected effectiveness of these control measures.

Contamination during sampling taking will be avoided.

Samples will be properly disposed in order to avoid contamination of the feed materials.

4.4.3.2 Frequency of analysis

The frequencies of the specific analysis are based on the outcome of the risk assessment with a view to the risk involved and its possible impact and the relevant regulatory requirements (See chapter 6).

All sample related data and analyse results will be documented, accessed and communicated within the organisation.

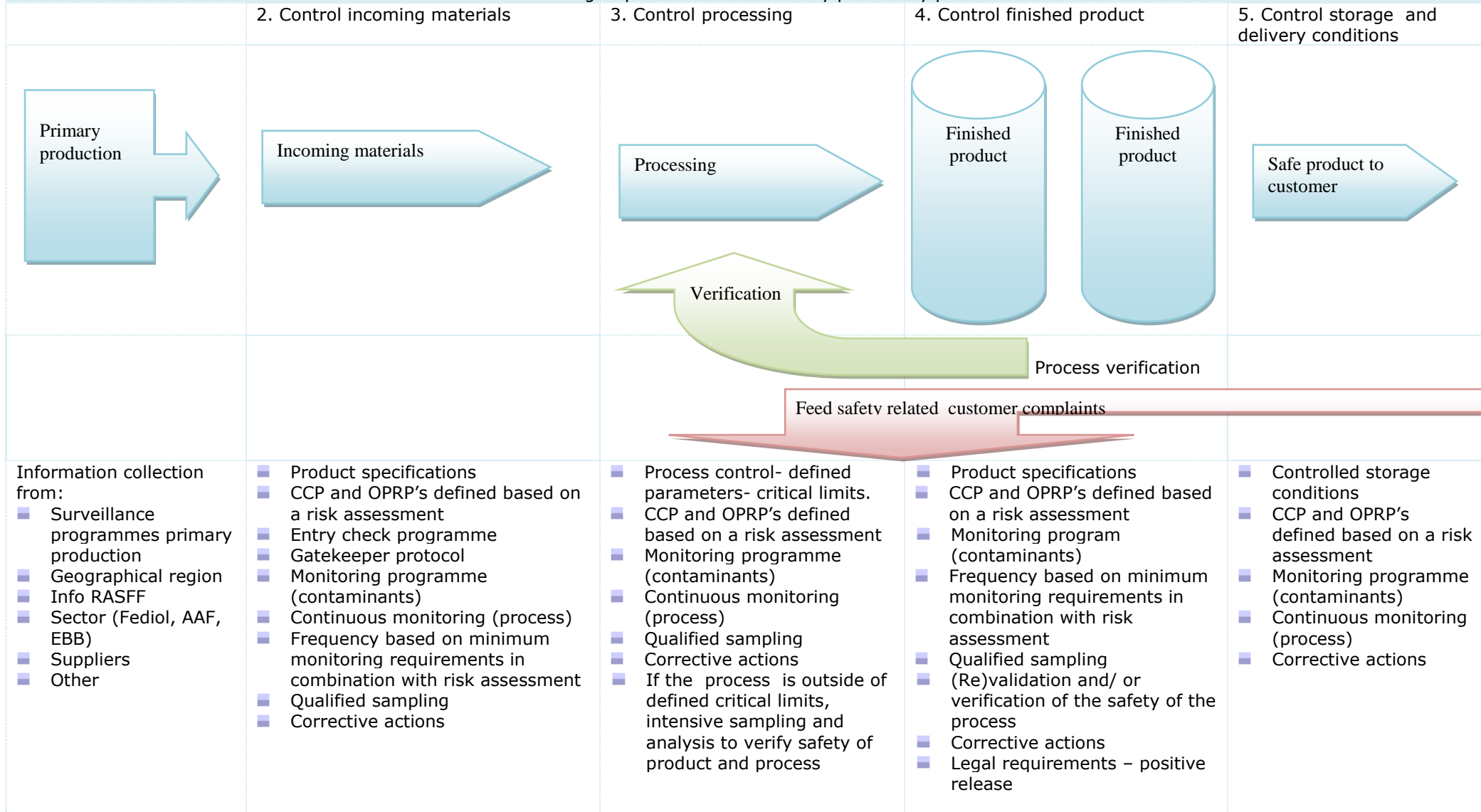
4.4.3.3 Laboratory and methods

For in-house laboratory analysis regarding feed material safety, the laboratory shall be accredited against ISO/IEC 17025, or the suitability of the method and its application shall be validated against the appropriate standard and ring testing by participating in inter- laboratory proficiency tests in line with ISO/ IEC 17043, conformity assessment- general requirements for proficiency testing.

For sub contracted analysis in general and the kind of feed materials safety analysis requiring by law an accredited lab and normalised methods, the laboratory performing the analysis should be accredited according to ISO 17025 for the relevant scope. In case no normalised method is available a validated method can be used.

Table 1. EFISC flow diagram monitoring.

Based on HACCP in combination with minimum monitoring requirements - Hazards by product by process indicated sector documents- risk assessments



For external analysis laboratories certified according to ISO/ IEC 17025- for internal analysis laboratories certified according to ISO/ IEC 17025 or valid method and ring testing in line with ISO/ IEC 17043.

Information, experience and monitoring data sharing at sector level

4.4.4 Control of non-conforming product

The management shall establish a documented procedure for dealing with products which do not comply with intended requirements.

The procedure should include:

- a) Identification.
- b) Segregation of affected batches.
- c) Provision for disposal of products where appropriate.
- d) Evaluation of the root cause of the non-conformance.
- e) Documentation of non-conformance, root cause analysis, corrective actions and verification.
- f) Recording of internal information of relevant parties.

Responsibility for review and disposal of the non-conforming product shall be defined.

A batch of feed material contaminated with specific contaminants above legal limits shall not be mixed with other batches of feed material with the aim to dilute the contamination.

A non-conforming product should be reviewed in accordance with documented procedures and actioned in one of the following ways:

- a) Rejection and return to supplier
- b) Rework (See rework [§4.3.5](#)).
- c) Reclassification (e.g. as a product intended for industrial use).
- d) Dispensation (not in case of a feed safety issue).
- e) Rejection and subsequent destruction or disposal according to waste disposal procedures (See [§4.2.8](#)).

4.4.5 Crisis management – withdrawal and recall for safety reasons

The management shall implement a documented withdrawal and recall procedure that ensures customers and regulatory authorities can be informed promptly in the event of any irregularity that may adversely affect feed material safety in line with Reg. 178/2002/EC art. 20.

If the management considers or has reason to believe that a feed material which it has produced, processed or manufactured does not satisfy the feed safety requirements it shall immediately initiate procedures to withdraw and if necessary, recall from users of the feed material the feed in question from the market and inform the competent authorities thereof.

The business operator shall:

- a) The withdrawal and recall procedure shall be documented.
- b) Responsibility shall be defined for notifying customers and regulatory authorities.
- c) Responsibility within the operation for product withdrawal and recall(s) shall be defined.
- d) A crisis contact will be available 7/24.
- e) All relevant contacts (including relevant authorities) shall be listed and kept up-to-date.
- f) The certification body and EFISC shall be informed about the situation without delay.
- g) Allow the Certification Body to perform a short notice audit in order to evaluate the situation and take appropriate action.

Feed materials which are considered unsafe will be handled as non conforming product (See [§4.4.4](#)).

Yearly the recall procedure shall be tested by a simulation to ensure its validity.

4.4.6 Internal audits

The management shall ensure that internal audits are performed on a yearly basis, taking into account all relevant processes to verify the feed safety management system is:

- a) Effectively implemented and maintained.
- b) In compliance with regulatory and other defined requirements.

Internal audits may also be used to identify potential opportunities for improvements. The planning for internal audits shall be documented, as well as any updating actions resulting from previous audits.

The documented audit procedure should, as a minimum, include:

- a) Preparation and issue of audit plans.
- b) Scope of audits.
- c) Frequency of audits.
- d) Methods used to conduct the audits.
- e) Reporting of findings and suggested improvements.
- f) Distribution of reports.
- g) Implementation of corrective actions and follow-up activities.
- h) Selection and training of competent auditors ([See §4.2.2.2](#))

The requirements for the conduct of audits shall ensure the objectivity and impartiality of the audit process. Auditors shall not audit their own work.

For the internal audit the following information could be relevant, among others:

- a) The auditor checklist available on the [EFISC website](#).
- b) Previous internal and external audit reports.
- c) Reports on the actions resulting from previous audits.
- d) List with non- conforming feed materials and related corrective actions.

The auditor will document his findings, possible recommendations and conclusion and report to the management.

The management shall review the findings and ensure the necessary follow- up of the non conformities and corrective actions.

4.5 Supplier and customer relationship

4.5.1 Supplier relationship

The choice of suppliers of services and incoming materials is a key aspect of any operator's safety management system(s). Poor suppliers can result in the production of low quality feed materials and may compromise the safety of the operator's entire process. All operators should therefore place special emphasis on ensuring that their suppliers comply with the operator's requirement and the requirements in this Code.

A list of the suppliers of products and services will be kept up-to-date and available.

Preferably the operator shall make use of suppliers of products and services certified in compliance with a standard recognized by EFISC. The certification status will be contractually agreed.

Suppliers of high risk raw materials should be evaluated based on a risk assessment, on a yearly basis.

Suppliers of services with a possible impact on feed material safety, like for instance laboratories, transport and storage providers, shall be included in the suppliers risk assessment and evaluation as far as possible (See chapter 6).

4.5.2 Customer relationship

The operator shall ensure adequate communication with customers to determine customer feed safety requirements. The product requirements will be specified in the product specification and be part of the contract ([See §6.4](#)). Contracts and orders shall be subjected to review to determine whether the operator is able to meet such requirements. The contract review shall include notification of the HACCP-team leader in advance of production or delivery if customer requirements may have an impact on feed safety.

Each customer complaint shall be examined following a documented procedure that establishes the workflow and responsibilities for managing complaints.

For each complaint the following data must be kept:

- a) Feed product **specification**, quantity and lot number under complaint.
- b) Name of customer and delivery place.
- c) Characteristics of complaint.
- d) Investigation to research causes.
- e) Action taken to prevent recurrence.
- f) Feedback to the customer.

Customer complaints regarding feed safety will be recorded so retrieval is made easy for the HACCP verification.

5 PREREQUISITE PROGRAMMES

In order for an effective HACCP system to be implemented, a prerequisite programme shall be established by the operator, indicating the control measures, based on the outcome of his risk assessment.

The PRP programme shall as a minimum, address the topics listed below.

More detailed provisions can be found in this document under the chapter on management; 4.2 resource management and chapter 4.3 operational rules. In addition more information can be found in the risk assessment of the relevant sector reference documents ([see Annexes](#))

The link provided in the text below provides a cross reference to the related text.

5.1 Construction and lay-out of the building ([See §4.2.3.2](#)).

5.2 Lay-out of premises and workspace ([See §4.2.3.3](#)).

5.3 Utilities ([See §4.2.3.3](#)).

5.4 Waste disposal ([See §4.2.8](#)).

5.5 Equipment, cleaning and maintenance ([See §4.2.3.4](#)).

5.6 Management of incoming materials ([See §4.3.3](#), §4.5.1).

5.7 Measures for the prevention of contamination ([See §4.3.4](#)).

5.8 Cleaning and sanitation ([See §4.2.6](#)).

5.9 Pest control ([See §4.2.7](#)).

5.10 Personal Hygiene ([See §4.2.2.3](#)).

5.11 Personal facilities ([See §4.2.2.3](#)).

5.12 Rework ([See §4.3.5](#)).

5.13 Product withdrawal and recall ([See §4.4.4 and §4.4.5](#)).

5.14 Storage ([See §4.3.10](#)).

5.15 Transportation ([See §4.3.11](#))

5.17 Training and supervision of personnel ([See §4.2.2.2](#))

5.18 Product information ([See §6.4](#))

5.19 Food defense, biovigilance and bioterrorism (See [§4.1.1](#), [§6.6](#))

6 HACCP SYSTEM

6.1 General introduction

HACCP stands for Hazard Analysis and Critical Control Points and is a "tool" that helps an operator to identify safety hazards and quantify the risk associated with their products and processes. The system then enables the operator to document, control and verify the effect of measures to control these safety hazards.

The production of safe feed materials requires that the HACCP system is built upon a solid foundation of prerequisite programs. Prerequisite programs provide the basic environmental and operating conditions that are necessary for the production of safe feed materials. While prerequisite programs may impact upon the safety of a feed material, they also are concerned with ensuring that feeds are wholesome and suitable for consumption. HACCP system are narrower in scope, being limited to ensuring feed is safe to consume. The nature of the PRP will vary between individual operators but the general principles will apply across the European feed material industry.

The prerequisites are the backbone of the system and without them no HACCP system will be successful. These procedures provide a solid operating foundation allowing the HACCP team to focus on the few critical issues that may not be addressed as part of the daily program but still require special care.

The HACCP-method is based upon seven basic principles:

1. Conduct a hazard analysis.
2. Determine the critical control points (CCPs) and operational prerequisite program (OPRP).
3. Establish critical limits.
4. Establish a system to monitor the control of each CCP and OPRP.
5. Establish the corrective action to be taken if controls should fail.
6. Establish a procedure to verify that all the aspects of the HACCP system are working effectively.
7. Document all procedures and records to demonstrate the HACCP system is working effectively.

6.2 General requirements

The operator shall have a well-documented, fully implemented HACCP-system that covers all activities within the scope. This scope starts at the point of legal ownership of the incoming materials and ends where the ownership of the final product is transferred to the customer.

The practical application and implementation of HACCP requires a structural approach that can be divided into the following implementation strategy;

6.3 HACCP-team and team leader

The HACCP- system shall be developed and maintained by a multi-disciplinary team that will have responsibility for establishing, developing, maintaining and reviewing the HACCP system. This team shall have access to multidisciplinary knowledge and practical experience in feed safety management systems. It is vital this team has the full support of the Operator's management and ideally a management representative should lead the team. The team should include people who have as a whole demonstrable thorough knowledge of:

- a) Application of HACCP-principles.
- b) Production processes and equipment used.
- c) Products, incoming materials and their related hazards.
- d) Legal and sector requirements.

Team meetings shall be chaired by a HACCP-team leader. This team leader reports directly to management. HACCP-team meetings are regularly planned. The outcome of these meetings, the composition of the HACCP-team and the individual competence of the team members shall be documented.

6.4 Incoming material and feed material specifications

The HACCP-system shall cover the production of all existing and new feed materials.

Detailed information regarding each product is required in order to assess hazards presented by the process or delivery to the end user. Be sure to consider the product incoming materials, and application of the feed material by your customers. Both final products and incoming materials may be defined as groups if feed safety aspects are comparable. For practical reasons it is advisable to group similar products where appropriate. In that case, all materials in a group shall be stated in the relevant specification.

For incoming materials, documented specifications shall be defined stating:

- a) Name or other identification.
- b) Origin and production method.
- c) Relevant chemical, physical and microbiological characteristics regarding feed safety, including characteristics determined in the hazard analysis.
- d) Packaging (if any).
- e) Shelf life/storage conditions.
- f) Relevant legislation.

For **feed materials**, documented specifications shall be defined stating:

- a) Name or other identification.
- b) Relevant chemical, physical and microbiological characteristics relating to feed safety.
- c) Packaging (if any).
- d) Composition.
- e) Labelling/claims.
- f) Shelf life/storage conditions.

- g) Directions for application/intended use.
- h) Relevant legislation.
- i) The intended use of the product shall be identified and documented.

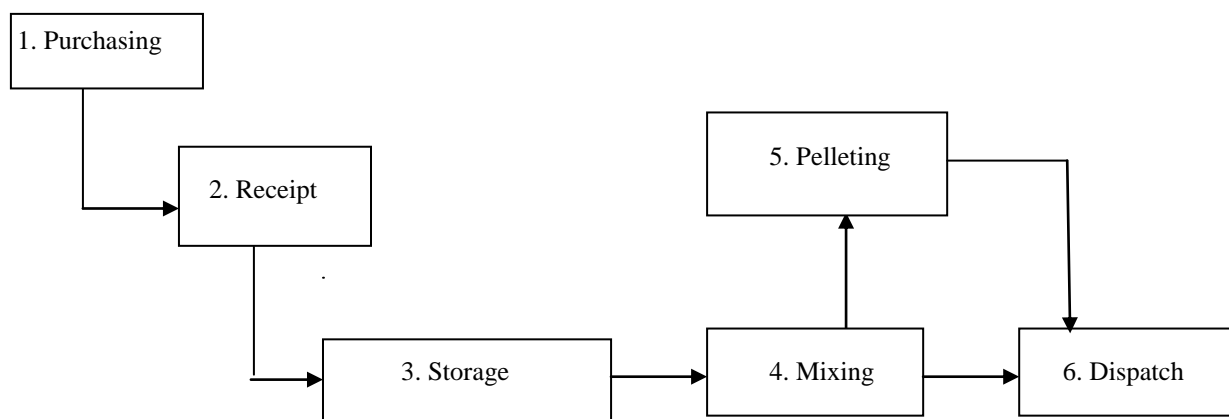
6.5 Process information

All processes within the scope shall be documented in process flow diagrams. Process flows shall have a level of detail that facilitates a thorough analysis by the HACCP-team. The process flow diagram should indicate the steps used to produce the product. One block in the process flow should reflect a step in the process.

The process flow diagram shall include:

- a) Production, storage and logistic processes.
- b) Processes for the production or treatment of water, steam, compressed air, gasses or any other substance that comes into direct contact with the product.
- c) Equipment for CIP where these may constitute a hazard for the final product.
- d) **All** outsourced processes.
- e) Rework and/or intermediate storage.
- f) Relevant input of processing aids.
- g) Line-up variations that are inherent to the process.

The diagram should be as simple as possible, with clear diagrams and unambiguous terms. Its level of detail should be in line with the knowledge of the HACCP-team members of the process. A very basic example is given here:



Confirm the accuracy of the process flow diagram *in situ* by checking it against the actual operating process in your facility.

Where cross-contamination may form a risk, the process information shall include a layout of the premises showing routing of (final) products, waste and personnel and the location of waste collectors and personnel facilities.

All process information shall be demonstrably validated by the HACCP-team against the actual processes and premises.

6.6 Hazard analysis

The HACCP-team shall conduct and document a hazard analysis that covers materials and all process steps within the defined scope.

The diagram shall be used to identify potential hazards at each process step, taking the particular circumstances of the step into account, from the perspective of:

Chemical – Pesticides, lubricants, dioxins, heavy metals, cleaning agents etc.

Biological – Undesirable micro-organisms such as salmonella, E. coli, moulds, etc.

Physical - Foreign bodies such as glass, wood, jewellery, stones metal objects etc.

For example, for Step 1, your first consideration should always be, "How good is the material being supplied to me?"

Both the source and the hazard should be specified, e.g.: "Too low pressing temperature causing Salmonella survival".

In addition the site location risk and other activities on the site will be taken into account in the risk assessment.

For all identified hazards, the acceptable level of the feed safety hazard in the finished product will be determined based on the requirements in the EU and National legislation, customers feed safety requirements and other relevant data.

6.7 Risk assessment

For all identified hazards, the risk level shall be assessed by determining the severity of the health effect of the hazard and the likelihood that this effect will occur at that step, with no control measure in place (unmitigated risk). The HACCP-team shall compare the calculated risk levels to a predefined risk level to identify the significant hazards and the non-significant hazards. The predefined risk level and its motivation and the assessment and determination of (non-) significant hazards shall be documented.

Example:

Severity ↓			
High	3	4	4
Medium	2	3	4
Low	1	2	3
Likelihood → of occurrence	Low	Medium	High

This table is based on two basic elements for risk characterisation, i.e. severity and likelihood. Where appropriate, additional parameters such as the detectability or additional ranking category (“very low” for instance) may be included in order to allow a specific adaptation of the risk assessment on a case by case basis.

Four risk levels can be determined with the risk evaluation model. In the event of risk level 1, no measures may be necessary. In the event of risk level 2, periodic measures have to be carried out. When the outcome of the assessment shows a high risk level (3 and 4) the manufacturer shall use the decision tree to evaluate the risk. A level 3 hazard can be addressed by the PRP programme, an OPRP or CCP. A level 4 hazard is an OPRP or a CCP.

6.8 Selection and assessment of control measures

All significant hazards shall be evaluated by the management, using a structural method, to determine whether the related process step is an OPRP or a CCP.

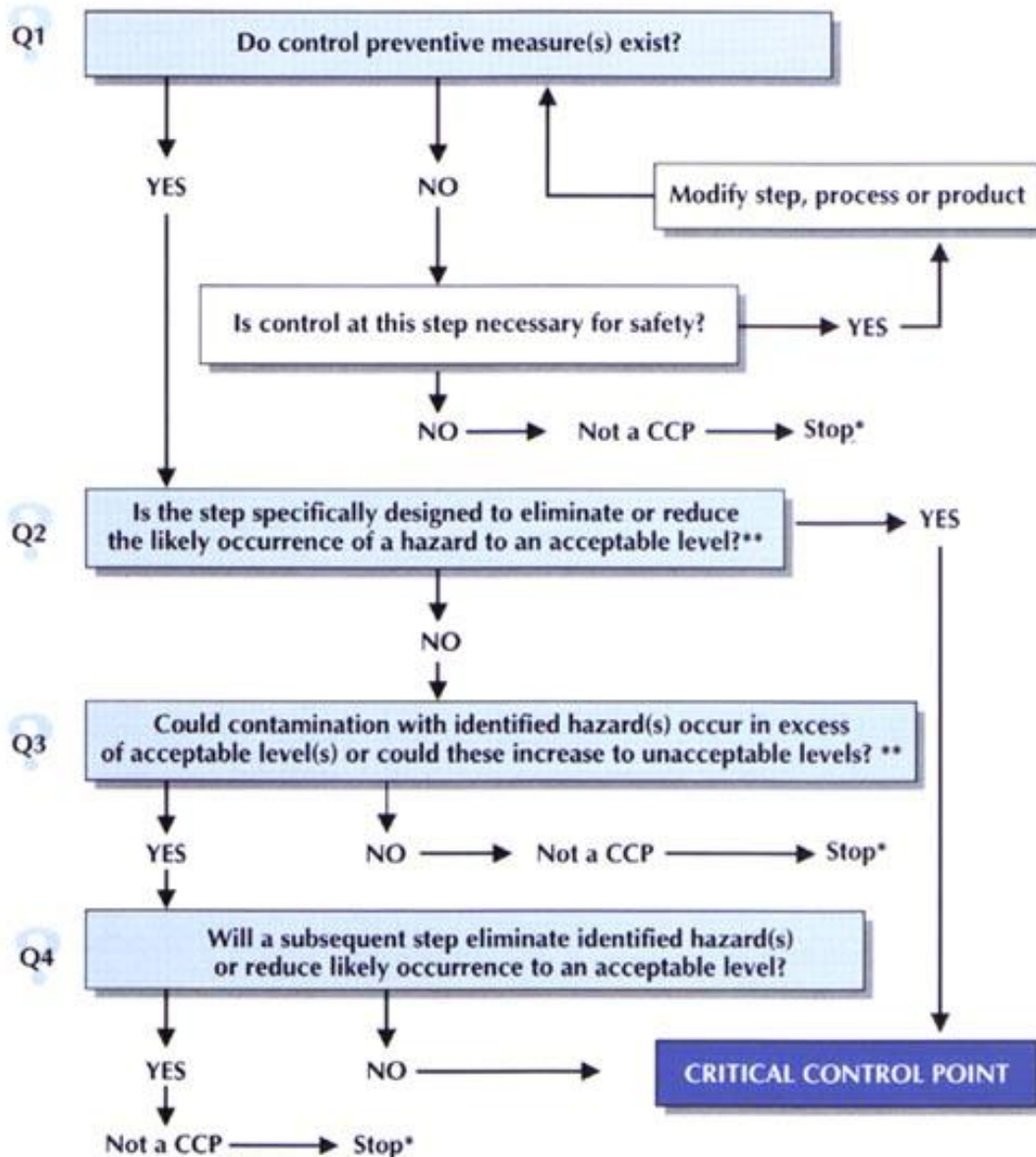
If a significant hazard needs a specific and “absolute” control and there is no point further down stream in the process that can reduce or eliminate it, it is a CCP.

In case the significant hazard is not a CCP it shall be controlled by an operational prerequisite program. The OPRP will reduce and control the hazard to an acceptable level. Exceeding the limits does not automatically mean that the product is unsafe. The OPRP will be monitored and corrective actions recorded, to demonstrate that the OPRP is implemented.

This method shall as a minimum take into account:

- a) The need for a specific control measure.
- b) The possibility to monitor and/or control the process step.
- c) The validity of the control measure to eliminate the risk or reduce it to an acceptable level.
- d) The presence of a subsequent processing step that will eliminate the risk or reduce it to an acceptable level.

The determination is facilitated by the application of a decision tree (See figure below), which indicates, by means of four questions, a logic reasoning approach. To avoid a large number of non-realistic CCP’s, the tree should only be applied on significant hazards, e.g. with risk levels of 3 and 4.



The total number of CCPs will depend on the processes and products but following the proper method it will give the relevant number of CCP's. Try to keep the total number as low as possible. You can monitor a few key CCPs much more effectively than a vast array.

Once the process step and related hazard that needs a specific control are identified the control measure must be defined. The control must be possible, measurable and eliminate or reduce the risk to an acceptable level. If the CCP is out of control immediate corrective action must be possible.

The motivation and outcome of the OPRP and CCP determination shall be documented.

6.9 Establishing the operational prerequisite programmes (OPRP's)

The operational PRPs shall be documented and shall include the following information for each programme:

- a) Feed safety hazard(s) to be controlled by the programme ([See §6.8](#)).
- b) Control measure(s) ([See §6.8](#)).
- c) Monitoring procedures that demonstrate the correct implementation of the operational PRP's ([See §6.11](#)).
- d) Corrections and corrective actions to be taken if monitoring shows that the operational PRPs are not in control ([See §6.11](#)).
- e) Responsibilities and authorities.
- f) Record(s) of monitoring.

6.10 Establishing the HACCP plan

The HACCP plan shall be documented and shall include the following information for each identified critical control point (CCP):

- a) Feed safety hazard(s) to be controlled at the CCP ([See §6.8](#)).
- b) Control measure(s) ([See §6.8](#)).
- c) Critical limit(s) ([See §6.11](#)).
- d) Monitoring procedure(s) ([See §6.11](#)).
- e) Corrections and corrective action(s) to be taken if critical limits are exceeded ([See § 6.11](#)).
- f) Validation and verification ([See §4.4.3](#))
- g) Responsibilities and authorities.
- h) Record(s) of monitoring.

6.11 Critical limits and monitoring

For all identified OPRP's and CCP's, critical limits shall be defined. These limits shall be validated by e.g. legislation, scientific data or challenge tests. Establish a target value as an average and a critical limit that will divide the acceptable from the unacceptable. These limits must comply with all legislative obligations but if there are no legal limits one's own research; analytical and bibliographic, and experience (either your own or a consultant's) should be used to strike the right balance between safety and operability.

A clear distinction shall be made between limits that trigger (only) process adjustment and critical limits that, if exceeded, require product aimed corrective actions. Critical limits and their validation shall be documented.

Monitoring of an OPRP or CCP is a planned measurement of the process parameters to establish if an OPRP or CCP is under control. It must have a schedule, limits as defined above, a written procedure, responsible employees with appropriate training and a written record of the measurements/observations/results.

The monitoring of OPRP and CCP's shall be valid to:

- a) Signal exceeding of critical limits.
- b) Represent continuous state with acceptable certainty.

If any indirect monitoring or qualitative limit is used, the validation of the method and/or of the competence of the operator shall be documented.

6.12 Correction

The HACCP-team shall define planned corrections and corrective actions to be taken, aimed at correction, if a critical limit is exceeded. This correction shall extend itself over all products that were not demonstrably processed within critical limits.

Correction reports shall represent the actual measured values, date/time, initials of the employee involved and any correction, including the volume and final destination of involved product. A documented procedure shall be in place for the handling of non-conforming product in order to ensure that the feed material can not be released before being evaluated ([See §4.4.4 non-conforming product](#)).

The operator shall document an overview of all OPRP's and CCP's, including the control measures, critical limits, monitoring frequency and method, corrections, records and related responsibilities. This overview shall be implemented in the operational documentation of the feed safety management system manual.

Example:

Step	Hazard	Category	CCP	Monitoring				Critical limit	Corrective action	Record & verification
				What	How	When	Who			
4.Mixing	Foreign objects in material	Physical (any)	3 (3 rd in process)	What	How	When	Who	All holes < 2 mm Sieve is rotating at 50 revs'/minute	Block product since last inspection in accordance Replace or repair sieve or reset its speed if its out of spec.	Number of complaints on foreign objects in final product
				Sieve	Inspected to ensure it is operating and in good condition	Daily	Maintenance Dept.			

6.13 Validation of the feed safety management system

The operator can refer to the Code including the relevant sector reference document(s) to validate the HACCP-system.

The HACCP system should be validated at least after every change.

6. 14 Verification of the feed safety management system

The HACCP-team shall verify the feed safety management system at least annually to confirm its effectiveness and validity. This verification shall demonstrably consider:

- a) Implementation and effectiveness of all prerequisites.
- b) Implementation and effectiveness of all control measures.
- c) All deviations in OPRP and CCP control and corrective actions taken.
- d) Internal and external notifications (complaints) related to feed safety.
- e) Results of relevant chemical and microbiological analysis.
- f) Incidents and recalls.
- g) Changes in products, processes and legislation.

This verification shall lead to explicit conclusions on the implementation, effectiveness and validity of the feed safety management system. The verification shall be fully documented, ideally be part of the company's internal audit schedule and be used as input for the management review.

There is a number of documents that will be necessary as part of the HACCP system. A minimal list is prescribed here:

- a) HACCP-team (members and expertise).
- b) Minutes of HACCP-team meetings.
- c) End product specifications.
- d) Material specifications.
- e) Process diagrams.
- f) Prerequisites.
- g) Hazard analysis tables, including OPRP and CCP-determination and validation.
- h) OPRP programme including all hazards, critical limits, monitoring and corrective actions.
- i) HACCP-plan including all CCP's, critical limits, monitoring and corrective actions.
- j) Operating procedures for OPRP's and CCP's.
- k) Corrective reports and associated documents.
- l) Verification procedures and results for all of the above.

7 REFERENCE DOCUMENTS

In order to align the Guide with current animal feed legislation and various activities on national, industrial and/or association levels, it takes into account the principles of feed and food safety as well as HACCP principles that are set out in various international documents further down and EC legislation, in particular:

EU legislation

- The General food law Regulation ([178/2002/EC](#))
- The Feed Hygiene Regulation ([183/2005/EC](#))
- REGULATION (EU) No [225/2012](#) - amending Annex II to Regulation (EC) No 183/2005 as regards the approval of establishments placing on the market, for feed use, products derived from vegetable oils and blended fats and as regards the specific requirements for production, storage, transport and dioxin testing of oils, fats and products derived thereof
- The Placing on the market Regulation ([767/2009/EC](#))
- REGULATION (EU) [No 939/2010](#) amending Annex IV to Regulation (EC) No 767/2009 on permitted tolerances for the compositional labelling of feed materials or compound feed
- The Regulation on the Catalogue of feed materials ([68/2013 /EC](#))
- The Official Control Regulation ([882/2004/EC](#))
- The Additives Regulation ([1831/2003/EC](#))
- The Directive on undesirable substances in animal nutrition([2002/32/EC](#))
- Regulation (EU) [No 574/2011](#) amending Annex I to Directive 2002/32/EC of the European Parliament and of the Council as regards maximum levels for nitrite, melamine, *Ambrosia* spp. and carry-over of certain coccidiostats and histomonostats and consolidating Annexes I and II thereto
- REGULATION (EU) [No 277/2012](#) amending Annexes I and II to Directive 2002/32/EC of the European Parliament and of the Council as regards maximum levels and action thresholds for dioxins and polychlorinated biphenyls
- Regulation (EU) No [744/2012](#) amending Annexes I and II to Directive 2002/32/EC of the European Parliament and of the Council as regards maximum levels for arsenic, fluorine, lead, mercury, endosulfan, dioxins, *Ambrosia* spp., diclazuril and lasalocid A sodium and action thresholds for dioxins
- The Pesticide residues Regulation ([396/2005/EC](#))- [Pesticide EU MRLs database](#)
- Regulation (EC) No [178/2006](#) amending Regulation (EC) No 396/2005 of the European Parliament and of the Council to establish Annex I listing the food and feed products to which maximum levels for pesticide residues apply
- Regulation (EU) [No 600/2010](#) amending Annex I to Regulation (EC) No 396/2005 of the European Parliament and of the Council as regards additions and modification of the examples of related varieties or other products to which the same MRL applies

- Regulation (EC) [No 149/2008](#) amending Regulation (EC) No 396/2005 of the European Parliament and of the Council by establishing Annexes II, III and IV setting maximum residue levels for products covered by Annex I thereto
- Regulation (EC) [No 260/2008](#) amending Regulation (EC) No 396/2005 of the European Parliament and of the Council by establishing Annex VII listing active substance/product combinations covered by a derogation as regards post harvest treatments with a fumigant
- Regulation (EC) [No 299/2008](#) OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Regulation (EC) No 396/2005 on maximum residue levels of pesticides in or on food and feed of plant and animal origin, as regards the implementing powers conferred on the Commission
- Regulation ([No 459/2010](#)) amending Annexes II, III and IV to Regulation (EC) No 396/2005 of the European Parliament and of the Council as regards maximum residue levels for certain pesticides in or on certain products
- The GMO feed and food Regulation ([1829/2003/EC](#))
- Regulation (EC) No [1830/2003](#) concerning the traceability and labelling of genetically modified organisms and the traceability of food and feed products produced from genetically modified organisms and amending Directive 2001/18/EC
- The Commission Recommendation on the presence of deoxynivalenol, zearalenone, ochratoxins A, T2 and HT2 and fumonisins in products intended for animal feeding, ([2006/576/EC](#))
- The Commission recommendation on the monitoring of the presence of ergot alkaloids in feed and food ([2012/154/EU](#))

Disclaimer: This list of EU legislation is not an exhaustive list. It does provide the main relevant EU legislation but does not have the intention to be complete.

CODEX

- The Codex Alimentarius [Code of Practice on Good Animal Feeding](#)

FAO

- [Good practice for the feed industry](#)- Implementing the Codex Alimentarius Code of Practice on Good Animal Feeding

ISO Standards

- [ISO 22000](#) food safety management systems- requirements for any organisation in the food chain
- [ISO 9001:2008](#) Quality management systems- requirements
- [ISO/TS 22002](#) Prerequisite programmes on food safety - Part 1: Food manufacturing

BSI

- The publically available specification [PAS 222:2011](#) "Prerequisite programmes for food safety in the manufacture of food and feed for animals"

8 SECTOR REFERENCE DOCUMENTS

A sector Code should include or call on the development of comprehensive risk analyses at sector level addressing per feed material involved:

- The identification of feed safety hazards.
- The formulation of measures to control these hazards
- **Minimum monitoring requirements**

The responsibility of individual locations/operators for HACCP remains untouched.

Sector "Codes of practice" referred to in the sector document are integral part of the sector document and the requirements are part of this Code.

The following feed material sectors have developed sector reference documents covering feed materials safety issues:

APPENDIX 4: SECTOR REFERENCE DOCUMENT ON THE MANUFACTURING OF SAFE FEEDMATERIALS FROM STARCH PROCESSING

APPENDIX 5: SECTOR REFERENCE DOCUMENT ON THE MANUFACTURING OF SAFE FEEDMATERIALS FROM OIL AND OILSEED PROCESSING

APPENDIX 6: SECTOR REFERENCE DOCUMENT ON THE MANUFACTURING OF SAFE FEEDMATERIALS FROM BIODIESEL PROCESSING

APPENDIX 1: Stakeholder consultation

EFIP has contacted and met a large representation of industrial sectors linked with production and consumption of feed materials and other stakeholders throughout the Community.

The aim of these meetings was to invite all major stakeholders associated with the feed industry in the EU to provide feedback on this Code prior and after to its first release in June 2009.

The final objectives of this consultative process, which is still open and continuous, are:

- a) Search for contributions, establish a constructive discussion and invite stakeholders to provide comments and proposals on the text for its continuous improvement.
- b) To provide a good understanding of the Code's approach to other sectors.
- c) To reach a sufficient degree of confidence within the feed and food chain, taking the greatest care of the legitimate safety expectations of the other sectors industry.
- d) To provide the Code a chain approach and coordination with the other parties involved.

A special mention has to be given to the very active participation of AAF and FEDIOL within the EFIP Platform, the European Feed Ingredients Platform, of which they are founding members. EFIP is established by the major European associations or federations representing the sectors that supply feed materials to the EU market, and is a voluntary platform to evaluate sectors' guides, share experiences, cooperate and offer concerted guidance to all of their members on the implementation of the Feed Hygiene Regulation and relating safety schemes. Together, the EFIP members represent the vast majority of all "materials" that enter the food chain via compound feed (cereals, processed vegetable or animal products, additives, and co-products from the food processing industry).

European Feed Ingredients Platform (EFIP)

In line with the publication of the Feed Hygiene Regulation (Reg. (EC) No 1831/2003) and in particular articles 7, 20 and 22 thereof, all of the major European associations or federations representing the sectors that supply feed materials to the EU market have taken steps to ensure that all of their respective sector guides meet the obligations of Reg. (EC) No 1831/2003, and more globally all feed regulations requirements, and are conforming with the Codex Alimentarius guide on good animal feeding CAC/RCP 54-2004.

These associations or federations have formed [EFIP](#), the European Feed Ingredients Platform. EFIP is a voluntary platform to evaluate sectors' guides, share experiences, cooperate and offer concerted guidance to all of their Members on the implementation of the Feed Hygiene Regulation and relating safety schemes.

Together, the EFIP Members represent the vast majority of all "feed materials" that enter the food chain via compound feed (cereals, processed vegetable or animal products, additives, and co-products from the food processing industry), whether produced in Europe or imported from third countries.

The following associations are a member of EFIP:

- [AAF - Association des Amidonniers et Féculiers - European Starch Industry](#)
 - [Association](#)
- [COCERAL - Comité du Commerce des céréales, aliments du bétail, oléagineux, huile d'olive, huiles et graisses et agrofournitures](#)
- [FAMI-QS - Feed Additive and Premixture Quality System European Association](#)
- [FEDIOL - The EU Oil and Protein meal Industry](#)
- [FEFANA- EU Association of Specialty Feed Ingredients and their Mixtures](#)

AAF

AAF (Association des Amidonniers et Féculiers) is the trade association which represents the interests of the European starch industry both at European and international level. The starch industry is present in 21 European countries and currently counts 24 members and 7 associate members. For a complete list please refer to the AAF web-site: <http://www.aaf-eu.org/>

FEDIOL

FEDIOL is the European federation representing the EU Oil and Protein meal industry. FEDIOL members are 14 National Associations of seed crushers' and oil processors' established in the different EU countries. Through its network of associations, over 35 companies are affiliated to FEDIOL, such as AAK, A.D.M, CARGILL, BUNGE, IOI Loders Croklaan, Lipidos Santiga, Sovena, Thywissen, Wilmar Edible Oils,.... A comprehensive list of companies affiliated to FEDIOL associations can be consulted on our web-site: <http://www.fediol.eu/>

APPENDIX 2: LIST OF ACRONYMS AND ABBREVIATIONS

- **As:** Arsenic
- **B:** Biological
- **C:** Chemical
- **Cat.:** Category
- **CCP:** Critical Control Point
- **Cd:** Cadmium
- **CFU/g:** Colony Forming Units per gram
- **CIP:** cleaning-in-place
- **DDT:** Dichlorodiphenyltrichloroethane
- **EC:** European Commission
- **EFIP:** European Feed Ingredients Platform
- **EU:** European Union
- **FEFAC:** European Feed Manufacturers' Federation
- **GMP:** Good Manufacturing Practice
- **HACCP:** Hazard Analysis and Critical Control Points
- **HCH:** Hexachlorocyclohexane
- **HCN:** Hydrogen cyanide
- **Hg:** Mercury
- **ISO:** International Organisation for Standardisation
- **MRL:** Maximum Residue Limit
- **MS:** Member States
- **P:** Physical
- **PAH:** Polycyclic aromatic hydrocarbons
- **Pb:** Lead
- **PCBs:** Polychlorinated biphenyls
- **PCCDs:** Polychlorinated-dibenzo-para-dioxins
- **PCDFs:** Polychlorinated-dibenzo-furans
- **PRP:** Prerequisite Programme
- **SFM:** Safe, Fair and Merchantable
- **SO₂:** Sulphur Dioxide
- **T°C:** temperature degrees Celsius
- **TEF:** Toxic Equivalent Factor
- **WHO:** World Health Organisation

Annex 3 Recognised feed and food safety schemes by EFISC

EFISC recognises the following schemes with the scope manufacturing of feed materials as valuable and accepts combined audit of the schemes with EFISC:

Ovocom- GMP

GMP+

QS

AIC- Femas

EFISC recognises the relevant modules of the following schemes for the activity indicated:

	transport	storage	trading	additives	laboratories
GTP					
Fami QS					
OVOCOM					
GMP+					
QS					
AIC					
Qualimat					
ISO 17025					

EFISC recognises the following schemes as valuable food safety assurance schemes which audit results can be taken into account during a combined EFISC audit

FSSC 22000

BRC

ISO 22000

IFS



**European Code to good practice for the industrial
manufacture of safe feed materials
Version 3.0
Effective from 15 January 2014**

