Sample Good Operating Practices for Grains, Oilseeds and Pulses Grain Handling and Processing Facilities

Copy No. Uncontrolled

September 4, 2018
Revision 4

Canadian Grain Commission
Process Verification and Accreditation Office
Industry Services
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Foreword

This set of sample good operating practices (GOPs) was created by the Canadian Grain Commission (CGC) in partnership with a Technical Expert Advisory Committee made up of grain industry representatives, audit firms, grain safety experts from the CGC and provincial government HACCP experts. These GOPs are intended to be used as a tool for grain companies to use in developing a HACCP-based food safety system that can be certified by the CGC as being compliant with one of its HACCP-based grain safety programs: CIPRS+ HACCP or CGC HACCP.

These GOPs are intended to be used in conjunction with the generic HACCP plan for grain, also developed by the CGC in partnership with a Technical Expert Advisory Committee. Together, these generic tools serve as guidelines that individual companies can adapt to the specific products and processes at their facilities. If done correctly, the resulting HACCP-based system will be compliant with CIPRS+ HACCP or CGC HACCP.
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GOP—001: PREMISE DESIGN

Objective

All new buildings and modifications to existing buildings are designed and constructed in a manner that minimizes unintentional co-mingling and contamination of product.

Procedure

When developing a HACCP system, the company will first assess existing buildings and structures for adequacy. As new buildings are constructed or modifications/renovations undertaken to existing buildings, these will be assessed for appropriateness related to the points listed below.

The planning of all proposed construction or renovation projects involves the personnel who are designated with the responsibility for evaluating all construction against grain safety and quality considerations, such as:

- the facility is located away from potential sources of external contamination that may compromise the safety and suitability of the grain;
- facility exterior is structurally complete, is suitable for the operations taking place within, and prevents access by pests;
- doors are constructed to minimize the entry of pests;
- washrooms, change rooms, and lunch and break area(s) are provided, are equipped with adequate lighting, an adequate number of flush toilets, hand-washing facilities, and are designed to prevent or minimize contamination;
- building materials used do not negatively impact on grain safety and are suitably maintained;
- design of internal rooms, structures and fittings is suitable for the operations taking place within, discourages cross-contamination, and permits effective assessment, maintenance and cleaning activities;
- lighting fixtures in areas of exposed grain and packaging materials is appropriate for the occupancy area for which they are placed;
- lighting is appropriate to accommodate all activities that will take place, including processing, cleaning, and maintenance;
- lighting in inspection and grading areas is of a design and type that does not lead to a misleading assessment of grain;
- drainage and/or waste disposal systems are equipped with back-flow prevention and no cross-connections exist with drainage or waste systems and potable water lines;
- receiving, processing and shipping areas are physically separate;
- facilities for the storage of production waste (i.e. dockage and screenings) are suitable to prevent pest infestation and prevent contamination of the product;
- staff washrooms with an adequate number of toilets and handwashing facilities are provided;

For new buildings or modifications to existing buildings, the responsible personnel review the blueprints and plans by completing the Construction Evaluation Checklist. The HACCP team reviews the completed Checklist and if they are satisfied that all grain safety and quality considerations have been addressed, they approve the project and construction.
contracts can be awarded. If changes are deemed to be necessary, the plans and blueprints are amended, the responsible personnel review the new plans and blueprints, complete the Construction Evaluation Checklist, and it is re-submitted to the HACCP Team.

**Monitoring and Verification**

During construction or renovation, the responsible personnel conduct an evaluation of compliance with the plans and blueprints by reviewing the invoices and specification of construction inputs, and by carrying out an inspection of the site prior to the next phase being undertaken. A designated manager or designate signs off on each phase of the project on the Construction Inspection Checklist.

After completion, and prior to use of the new facility, the Company arranges a final on-site inspection.

**Corrective Action**

The company records all deviations from the planned blueprints on the Construction Inspection Checklist and halts construction in that area. The company will resolve the deviation as per its Corrective and Preventive procedure and record the corrective action taken on the Corrective and Preventive Action Request Form.

**Records**

- Building Evaluation/Construction Checklist
- Corrective and Preventive Action Request Forms

**Related Documents**

- FSQMS Manual:
  - Management Review
  - Food Safety and Quality System Documentation
  - Control of Documents

**References**

- Canadian Electrical Code, Part 1, s18-216 and s 18-266
- Reference Listing of Accepted Construction Materials, Packaging Materials and Non-Food Chemical Products Database
- NSF White Book™ - Nonfood Compounds Listing Directory
GOOD OPERATING PRACTICE

PROCEDURE: PREMISE MAINTENANCE

PROCEDURE No: GOP—002

DATE:                     REVISION No:      DATE:

WRITTEN BY:               APPROVED BY:

GOP—002: PREMISE MAINTENANCE

Objective
The exterior of buildings and surrounding areas are maintained to prevent or minimize the entry or harborage of pests and contaminants. The interior of buildings are maintained to protect the safety and quality of grain. Waste management systems are in place to protect the safety and quality of grain.

Procedure

EXTERIOR

1. The facility property and land adjacent to the facility is maintained free of debris, refuse, vegetation, and other potential sources of contamination.

2. Roadways to the facility and the shipping areas are graded, and compacted to allow for adequate drainage and to minimize pooling water.

3. Equipment and materials stored outside the facility are stored in designated storage areas or on pallets in a manner that deters pest harbourage and far enough away from the facility to discourage pest travel.

4. Waste removed from personnel and processing areas is stored in a sealed container (e.g. dumpster) far enough away from the facility to discourage pest travel. A removal schedule is in place to minimize waste accumulation.

5. Where pipes extend through walls of the facility, they are sealed to prevent insect, rodent and bird entry; any holes or unprotected openings are sealed.

6. Windows in the plant are equipped with close fitting screens and/or materials that inhibit pest entry.

7. Windows are protected or constructed of unbreakable materials in grain processing and storage areas in areas where they may pose a food safety hazard.

8. Walls, roofs and foundations are maintained to prevent accumulation of water or entry of pests.

INTERIOR

1. Drainage and sewage systems are equipped with the appropriate traps and vents to prevent sewage back-up.

2. There are a sufficient number of clearly identified, appropriately designed and constructed waste containers in production areas. A removal schedule is in place to prevent waste accumulation. All flush, cleanout and sweep materials are identified and disposed to avoid contamination of grain.
3. Lighting fixtures in areas of exposed grain and packaging materials are equipped with shatterproof bulbs or breakage seals or are approved under the Canadian Electrical Code.

4. Lighting in inspection and grading areas is of a design and type that does not lead to a misleading assessment of grain. The following are CGC recommended specifications: 6 tube type 24”x 48” fixture; heat resistant, non-yellowing, white enamel reflectors; styrene prismatic diffusers. Lighting should emit between 2000-3000 Lux, colour temp of 5000K with a colour rendering index (CRI) of 90 or higher. Lights should be positioned no more than one meter above the grading bench.

5. Cracks in walls, ceilings, floors that may harbor insects are sealed.

6. Personnel facilities are properly maintained. Washrooms are equipped with hand-washing or sanitation facilities. Hand-washing notices are posted.

7. Ceilings, doors, walls are maintained in good repair to ensure there is no flaking paint or rust corrosion.

**Monitoring and Verification**

On a predetermined basis, the company conducts a visual inspection of both the exterior and interior of the buildings to ensure that all premise maintenance procedures are being followed. Results of the inspection are recorded on the Premise Maintenance Checklist.

Monitoring is verified on a frequency based on the risk of the process or by internal audits. The Premise Maintenance GOP is reviewed annually by the Management Review Committee to ensure it continues to be current and appropriate.

**Corrective Action**

The company records all deviations on the Premise Maintenance Checklist, and takes and records appropriate corrective actions. For example, appropriate corrective actions for a lighting deficiency would be addressing the deviation immediately by replacing lighting or by placing an order for new lights. If the deviation cannot be addressed immediately, the company will resolve the deviation as per its Corrective and Preventive procedure and record the corrective action taken on the Corrective and Preventive Action Request Form.

**Records**

Premise Maintenance Checklist
Corrective and Preventive Action Request Forms
Internal Audit Reports
Management Review Committee Minutes
GOOD OPERATING PRACTICE  PROCEDURE:  PREMISE MAINTENANCE

PROCEDURE No: GOP—002

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Related Documents

FSQMS Manual:
- Management Review
- Food Safety and Quality System Documentation
- Control of Documents
- Internal Audit
- Corrective and Preventive Action

GOP – 003 Premise Housekeeping
GOP – 004 Pest Control
GOP – 005 Personnel Practices
GOP – 013 Receiving, Handling, Storage and Shipping

References

Canadian Electrical Code, Part 1, s18-216 and s 18-266

Reference Listing of Accepted Construction Materials, Packaging Materials and Non-Food Chemical Products Database

NSF White Book™ - Nonfood Compounds Listing Directory
http://info.nsf.org/USDA/psnclistings.asp
GOOD OPERATING PRACTICE

PROCEDURE: PREMISE HOUSEKEEPING

PROCEDURE No: GOP—003

DATE: REVISION No: DATE:

WRITTEN BY: APPROVED BY:

GOP—003: PREMISE HOUSEKEEPING

Objective

Premise housekeeping is conducted to maintain cleanliness to the predetermined standard that is set to minimize or eliminate pests, prevent dust explosions, and protect the safety and quality of grain. Cleaning materials are appropriate for intended use and stored in a manner that presents no risk of contamination with the grain.

Procedure

The company is responsible for ensuring that a housekeeping schedule is established and maintained for activities including:

1. Grain spilled during unloading, processing and loading is cleaned up promptly.
2. Exposed oil or grease in areas where there is potential for product contamination is cleaned up immediately.
3. Lubricants, chemicals or other hazardous chemicals are returned to a separate, secure location immediately after use.
4. Spider webs and dust on walls, beams, pipes and ceilings are swept on a [weekly] basis to prevent grain contamination.
5. Unused machinery and parts are stored off the ground to discourage rodents.
6. Change rooms, washrooms, lunchroom and common areas are cleaned frequently enough to prevent cross-contamination of grain.
7. All flush, cleanout and sweep materials are identified and disposed of appropriately to avoid contamination of grain.
8. Spilled liquids are mopped up immediately.
9. Waste containers are emptied and the containers cleaned regularly and in a manner that does not contaminate product.
10. Drains, drain traps and drain covers are cleaned on a [monthly] basis.
11. The boot and pit are cleaned to ensure there is no dust or moisture build-up.
12. The receiving area is swept regularly to avoid buildup of debris and the pit grate is cleaned after each crop type to avoid cross contamination.
13. After any period of extended inactivity and prior to the start of operations, the company conducts a pre-operational assessment of the suitability of the premises including all storage areas, employee facilities, and the receiving and shipping areas. The results of the preoperational assessment are recorded.
Monitoring and Verification

On a predetermined basis, the company inspects the facility and records the results on the Housekeeping Checklist.

Monitoring is verified on a frequency based on the risk of the process or by internal audits. The Premise Housekeeping GOP is reviewed annually by the Management Review Committee to ensure it continues to be current and appropriate.

Corrective Action

The company records all deviations on the Housekeeping Checklist, and takes and records appropriate corrective action. Appropriate corrective action could be addressing the deviation immediately by, for example, re-cleaning a particular area or initiating refresher training for employees in cleaning procedures. If the deviation cannot be addressed immediately, the company will resolve the deviation as per its Corrective and Preventive procedure and record the corrective action taken on the Corrective and Preventive Action Request Form.

Records

Premise Housekeeping Checklist
Corrective and Preventive Action Request Forms
Internal Audit Reports
Management Review Committee Minutes

Related Documents

FSQMS Manual: Management Review
Food Safety and Quality System Documentation
Control of Documents
Human Resources
Internal Audit
Corrective and Preventive Action

GOP – 004 Pest Control
GOP – 007 Personnel Training
GOP – 011 Equipment Maintenance
GOP – 016 Allergen Control
GOOD OPERATING PRACTICE

PROCEDURE: PEST CONTROL

PROCEDURE No: GOP—004

DATE: REVISION No: DATE:

WRITTEN BY: APPROVED BY:

GOP—004: PEST CONTROL

Objective

The pest control program is developed to prevent entry and harborage of pests, and to detect and minimize pests in order to protect the quality of grain, and is carried out in a manner that will protect the safety of grain.

Procedure

1. A pest is any animal that either directly or indirectly causes a deterioration of the quality and safety of grain and grain products. Pests may include rodents, insects, birds and wildlife.

2. Regular premise housekeeping and maintenance activities are performed to prevent infestations from occurring. Regular monitoring activities are performed to ensure the grain handling facility is not conducive to the entry and harbourage of pests. Grain is inspected at receiving for the presence of pests and/or pest-damaged grain.

3. The pest control program is contracted to a pest control company or performed by trained facility staff who:
   • are authorized and properly trained to undertake pest monitoring and control procedures;
   • are authorized and properly trained to handle, apply and dispose of chemicals;
   • are licensed to use pest control products according to label instructions;
   • use only products approved by PMRA under the Pest Control Products Act & Regulations;
   • record all pesticide applications on the Pest Application Report and provides copies to the company; and
   • provide a detailed pest control program plan that includes the duties to be performed, chemicals used, handling procedures, type and location of pest devices, frequency of activities, and documentation requirements.

4. If contracted, a current copy of the contracted company’s certification is kept on file, as well as the technician’s licence, the contract and the insurance policy.

5. The facility is inspected on a predetermined basis by a contracted company or trained facility staff. After each inspection, a Pest Inspection Report is prepared and reviewed with the (Food Safety Manager/Quality Manager/other designated staff) to provide information on the status and effectiveness of the pest control program.

5. Results from pest control reports are analyzed for trends in activity. When trend analysis indicates ongoing or unusual pest control issues, an investigation is conducted and documented. Remedial corrective actions are taken based on the root cause of the issue.

6. Pesticides not registered for use near food or in food handling areas are not to be used within the grain processing area.

7. Stored grain is regularly monitored via pit-fall traps and sieving grain samples to detect
for early signs of insect infestations.

8. Empty bins are cleaned and maintained and are monitored for webbing and other evidence of insect infestation.

9. Grain found to be infested is reported to the Canadian Grain Commission as required by the Canada Grain Act and Regulations.

**Monitoring and Verification**

On a predetermined basis, the company conducts an on-site visual assessment of its pest control program and reviews associated pest application and inspection reports. Results are recorded on the Pest Program Checklist.

Monitoring is verified on a frequency based on the risk of the process or by internal audits. The Pest Control GOP is reviewed annually by the Management Review Committee to ensure it continues to be current and appropriate.

**Corrective Action**

The company records all deviations on the Pest Program Checklist and takes and records appropriate corrective actions. Appropriate corrective actions could be addressing the deviation immediately by, for example, requiring the pest control company to return for pest elimination or initiating repairs to the facility to prevent entry of pests. If the deviation cannot be addressed immediately, the company will resolve the deviation as per its Corrective and Preventive procedure and record the corrective action taken on the Corrective and Preventive Action Request Form.

**Records**

Certification documentation  
Facility Map  
Pest Application Report  
Pest Inspection Report  
Pest Program Checklist  
Corrective and Preventive Action Request Forms  
Internal Audit Reports  
Management Review Committee Meeting Minutes

**Related Documents**

FSQMS Manual:  
Management Review  
Food Safety and Quality System Documentation  
Control of Documents  
Human Resources  
Internal Audit  
Corrective and Preventive Action
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GOP – 002 Premise Maintenance
GOP – 007 Personnel Training

**References**


GOP—005: PERSONNEL PRACTICES

Objective

Employees, visitors and contractors follow personnel practices to minimize the risk of contaminating grain products. Protective clothing is provided when required to protect the quality and safety of the grain, or the safety of employees, visitors or contractors. Employees, visitors and contractors must advise management when ill, and no one suffering from a disease transmitted through food is allowed in the grain processing area.

Procedure

In order to ensure grain safety and quality within designated areas of this facility:

1. No food, beverages, medications, or glass containers or any other prohibited items are allowed in the grain processing and storage areas.

2. No one is allowed to eat, chew gum, use tobacco products or spit in or around the grain processing area.

3. All jewelry must be removed or covered to ensure it will not fall into the product prior to entering areas where grain or grain handling surfaces are exposed.

4. Employees who are in contact with the product will cover all cuts and wounds with a secure bandage.

5. Employees wash their hands after using the toilet facilities. Hand-washing signs are posted.

6. All injuries occurring in the facility must be reported to the management immediately and an investigation conducted to ensure that no contamination of the grain has resulted. If contamination has occurred, corrective action is taken to dispose of the contaminated grain.

7. Employees must advise management when ill, and no one known to be suffering from a disease transmitted through food is allowed in the grain processing area.

8. Employees maintain an adequate degree of personal cleanliness and wear clean clothing, headwear and footwear.

9. All visitors and contractors must sign in at the reception area before entering the grain processing areas and abide by the personnel practices.

10. Packaging materials are only used once and for the purpose intended.

11. Any glass breakage will be cleaned up immediately. If there is suspicion of contamination to the product, glass breakage procedures will be followed to ensure segregation and disposal of the contaminated product.
Monitoring and Verification

On a predetermined basis, the company conducts a visual inspection to ensure that the required personnel practices are being followed. Results of the inspection are recorded on the Personnel Practices Checklist. The company also observes employees at the beginning of each shift for signs of medical problems.

Monitoring is verified on a frequency based on the risk of the process or by internal audits. The Personnel Practices GOP is reviewed annually by the Management Review Committee to ensure it continues to be current and appropriate.

Corrective Action

The company records all deviations on the Personnel Practices Checklist and takes and records appropriate corrective actions. Appropriate corrective actions could be removing anyone showing signs of injury or illness that could cause a risk of contamination from the grain handling and processing area, and notifying management; or removing prohibited items from the area. If the deviation cannot be addressed immediately, the company will resolve the deviation as per its Corrective and Preventive procedure and record the corrective action taken on the Corrective and Preventive Action Request Form.

Records

Personnel Practices Checklist
Corrective and Preventive Action Request Forms
Internal Audit Reports
Management Review Committee Meeting Minutes

Related Documents

FSQMS Manual: Management Review
Food Safety and Quality System Documentation
Control of Documents
Human Resources
Internal Audit
Corrective and Preventive Action

GOP – 007 Personnel Training
GOOD OPERATING PRACTICE

PROCEDURE: CHEMICAL USE AND STORAGE

PROCEDURE No: GOP—006

DATE: REVISION No: DATE:

WRITTEN BY: APPROVED BY:

GOP—006: CHEMICAL USE AND STORAGE

Objective

Personnel mix, handle, use and store chemicals in a manner that prevents the contamination of grain. The chemicals used include pesticides, lubricants and other products for premise and equipment maintenance and cleaning activities.

Procedure

All employees or contractors who handle chemicals are appropriately trained and, if applying registered chemicals, are certified by the appropriate provincial licensing board as identified in the training matrix. Personnel handling fumigants and lubricants ensure that:

1. Only products approved by PMRA under the Pest Control Products Act & Regulations are used to control infestations.

2. All other registered chemicals used are listed in the “Reference Listing of Accepted Construction Materials, Packaging Materials and Non-Food Chemical Products Database” published by the Canadian Food Inspection Agency (CFIA), or have a “Letter of No Objection” issued by the CFIA.

3. All chemicals are measured, mixed, handled and used in accordance with manufacturers’ instructions.

4. Chemicals are taken, mixed and dispensed from correctly labeled containers.

5. Non food-grade chemicals (e.g. fumigants, lubricants) are labeled and stored in an area where they are kept secure, dry, well ventilated, and which is separate from grain processing areas.

6. Chemicals used in grain processing and storage areas are stored and handled in a manner that prevents contamination (e.g. covered or otherwise protected).

7. Maintenance activities are conducted in a manner that does not contaminate the product (e.g. using food grade lubricants above the production line).

Monitoring and Verification

On a predetermined basis, the company conducts a visual inspection to ensure that the required chemical use and storage practices are being followed and reviews training records to ensure that personnel using chemicals have received appropriate training. Results of the inspection are recorded. Chemicals used are confirmed against the Reference Listing on an annual basis.

Monitoring is verified on a frequency based on the risk of the process or by internal audits. The Chemical Use and Storage GOP is reviewed annually by the Management Review Committee to ensure it continues to be current and appropriate.
Corrective Action

The company records all deviations on the Chemical Use and Storage Checklist, and takes and records appropriate corrective actions. Appropriate corrective actions could be addressing deviation immediately by, for example, providing new containers or refresher training on chemical use. If the deviation cannot be addressed immediately, the company will resolve the deviation as per its Corrective and Preventive procedure and record the corrective action taken on the Corrective and Preventive Action Request Form.

Records

Personnel Practices Checklist
Corrective and Preventive Action Request Forms
Training Records
Internal Audit Reports
Management Review Committee Meeting Minutes

Related Documents

FSQMS Manual:  Management Review
             Food Safety and Quality System Documentation
             Control of Documents
             Human Resources
             Internal Audits
             Corrective and Preventive Action

GOP – 004 Pest Control
GOP – 007 Personnel Training
GOP – 011 Equipment Cleaning and Maintenance
GOP – 013 Receiving, Handling, Storage and Shipping

References

Reference Listing of Accepted Construction Materials, Packaging Materials and Non-Food Chemical Products Database

NSF White Book™ - Nonfood Compounds Listing Directory
http://info.nsf.org/USDA/psnclistings.asp

PMRA-approved pest control products: http://pr-rp.hc-sc.gc.ca/ls-re/index-eng.php
**GOOD OPERATING PRACTICE**

**PROCEDURE: PERSONNEL TRAINING**

**PROCEDURE No: GOP—007**

**DATE:**

**REVISION No:**

**DATE:**

**WRITTEN BY:**

**APPROVED BY:**

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**GOP—007: PERSONNEL TRAINING**

**Objective**

Training on Good Operating Practices, Standard Operating Procedures and Critical Control Points is delivered and updated as required to ensure that personnel are competent in the activities, policies and procedures necessary to protect the safety and quality of grain. Training is delivered frequently enough to ensure personnel’s understanding remains current.

**Procedure**

1. All employees receive orientation training at the onset of employment. This training includes an overview of the FSQMS and HACCP, including our quality policy and a review of our personnel practices.

2. The company identifies and ensures that all personnel whose activities affect food safety and quality are trained and qualified. The company develops and maintains a matrix of training needs, in addition to the general orientation training, for every employee as required. This is designed to ensure personnel receive the appropriate training at the correct frequency. All employees receive refresher training on HACCP, GOPs, SOPs, and other technical training that apply to their individual areas of responsibilities as identified in the Training Matrix.

3. The company reviews employee training needs on a predetermined basis based on employee performance records. Individual employee performance issues and trends identified suggest where additional or more frequent training may be required. Also considered is the need for trained personnel to conduct internal audits of the FSQMS.

4. The company maintains an Employee Training Record for each employee that includes the following information:
   - employee name;
   - position / title;
   - job description;
   - training received and date; and
   - section manager and employee signatures.

5. Prior to being assigned to a new position, the employee’s qualifications and training record is reviewed against the qualification and training needs as described in the job description. The manager or designate signs off on the staff appointment form.

6. Job specific and/or on-the-job training follow the SOPs and the GOPs that apply to that specific job. Training is recorded on the Employee Training Record and is signed by both the manager or designate and the employee.
7. HACCP Team members are provided with HACCP training, focusing on:  
   - prerequisite programs;  
   - hazard analysis;  
   - CGC generic HACCP model;  
   - production controls; and  
   - HACCP principles.

**Monitoring and Verification**

On a predetermined basis, the manager or designate reviews the employee training records and training matrix to ensure that employees are receiving the training as scheduled. Results are recorded on the Training Matrix.

Monitoring is verified on a frequency based on the risk of the process or by internal audits. The Personnel Training GOP is reviewed annually by the Management Review Committee to ensure it continues to be current and appropriate.

**Corrective Action**

The company records all deviations on the Training Matrix, and takes and records appropriate corrective actions. Appropriate corrective actions could be addressing the deviation immediately by, for example, scheduling the missing training. If the deviation cannot be addressed immediately, the company will resolve the deviation as per its Corrective and Preventive procedure and record the corrective action on the Corrective and Preventive Action Request Form.

**Records**

Employee Training Records  
Employee Training Matrix  
Corrective and Preventive Action Request Forms  
Staff Appointment Forms

**Related Documents**

FSQMS Manual:  
- Management Review  
- Food Safety and Quality System Documentation  
- Control of Documents  
- Human Resources  
- Analysis of Data

GOP – 001 to GOP – 015

Job Descriptions
GOOD OPERATING PRACTICE

PROCEDURE: POTABLE WATER

PROCEDURE No: GOP—008

DATE: REVISION #: DATE:

WRITTEN BY: APPROVED BY:

GOP—008: POTABLE WATER

Objective

When water is used in the production process or in contact with grain or grain contact surfaces, potable water is available. Water samples are sent to a laboratory that has a demonstrated ability to determine if the water supply meets the requirements of “Guidelines for Canadian Drinking Water Quality”.

Procedure

On a predetermined basis, the company samples the water supply and sends the sample out for quality and safety testing. Testing is to ensure that potable water meets the requirements of “Guidelines for Canadian Drinking Water Quality”. Personnel is trained in water sampling procedures.

If well water is used, the company develops and maintains a water treatment program, if water testing indicates a treatment program is necessary to meet potability requirements.

Monitoring and Verification

This procedure is verified to ensure that sampling and testing has taken place as scheduled, and that personnel sampling the water supply have received appropriate training.

The Potable Water GOP is reviewed annually by the Management Review Committee to ensure it continues to be current and appropriate.

Corrective Action

In the event of water failing to meet the requirements of “Guidelines for Canadian Drinking Water Quality”, the company takes appropriate action until the problem has been corrected. The company will resolve the deviation as per its Corrective and Preventive procedure and record the corrective action on the Corrective and Preventive Action Request Form.

Records

Water Test Results

Related Documents

FSQMS Manual: Management Review
Food Safety and Quality System Documentation
Control of Documents
Human Resources
Control of Non-Conformances
Internal Audit
Corrective and Preventive Action
GOOD OPERATING PRACTICE

PROCEDURE: POTABLE WATER

PROCEDURE No: GOP—008

DATE: REVISION #: DATE:

WRITTEN BY: APPROVED BY:

GOP – 002 Premise Maintenance
GOP – 007 Personnel Training

References

Guidelines for Canadian Drinking Water Quality:
GOP—009: EQUIPMENT DESIGN

Objective

All new and existing equipment, including storage bins, are designed and installed to achieve its intended purpose and in a manner that protects the quality and safety of grain during handling, processing and storage.

Procedure

1. All plant equipment and storage bins are easily cleaned and maintained. Plant and equipment surfaces are made of non-toxic materials and designed to withstand the environment of its intended use. Equipment is installed in a manner that facilitates cleaning, inspection and maintenance activities.

2. Magnets and other necessary detection devices are in place where necessary.

3. Storage bins are designed to permit cleaning and maintenance, and to allow for the monitoring of humidity, temperature and air flow where required to reduce the potential of product degradation and mould growth.

4. Prior to purchasing any major piece of equipment, the company reviews the specifications to ensure that it is made of non-toxic materials, can be easily cleaned and maintained, and is designed to withstand the environment of its intended use. The results of this review are recorded on the Equipment Design and Evaluation Checklist. The purchase order for new equipment is signed only after this review has been completed and the specifications are approved.

5. Equipment and test supplies used for testing the quality and safety of grain is fit for purpose as per the manufacturer’s recommended guidelines and the company’s established parameters for testing the quality and safety of grain.

Monitoring and Verification

After the installation of new equipment, and prior to its use, the company conducts a final on-site inspection of the new equipment to ensure it meets the approved specifications and records the results on the Equipment Design and Evaluation Checklist.

The Equipment Design GOP is reviewed annually by the Management Review Committee to ensure it continues to be current and appropriate.

Corrective Action

The company records all deviations from the approved specifications on the Equipment Design and Evaluation Checklist and initiates appropriate corrective action with the supplier. This could include return of the faulty equipment and arranging for an alternate piece of
equipment from the original or a different supplier. The company will resolve the deviation according to its Corrective and Preventive procedure and record the corrective action on the Corrective and Preventive Action Request Form.

**Records**

Equipment Design and Evaluation Checklist

**Related Documents**

FSQMS Manual:  Management Review  
   Food Safety and Quality System Documentation  
   Control of Documents  
   Control of Non-Conformances

GOP – 001 Premise Design  
GOP – 002 Premise Maintenance  
GOP – 011 Equipment Cleaning and Maintenance
GOOD OPERATING PRACTICE  PROCEDURE: CALIBRATION

PROCEDURE No: GOP—010

DATE:  REVISION No:  DATE:

WRITTEN BY:  APPROVED BY:

GOP—010: CALIBRATION

Objective

Calibration activities are conducted at regular and predetermined frequencies to ensure that all inspection, measuring and test equipment that may impact the safety and quality of grain operates as intended.

Procedure

1. All inspection, measuring and test equipment and methods are capable of providing the accuracy and precision required for the measurement being performed. A master list of all inspection, measuring and test equipment is compiled and maintained by the company that indicates for each piece of equipment:
   i. A description of the equipment and its purpose
   ii. Unique equipment number
   iii. Title of the person responsible for calibrating that piece of equipment
   iv. Required frequency of calibration
   v. Calibration method
   vi. Required action to be taken when results are unsatisfactory

2. Calibration activities for each piece of equipment are assigned to appropriately trained personnel or contractors and indicated on the Master Equipment List.

3. Calibration records are kept for each piece of inspection, measuring and test equipment recording the date and results of each calibration, as well as corrective action taken when results are unsatisfactory.

4. Upon installation, the accuracy of each piece of inspection, measuring and test equipment is verified before it is used. Also, at this time, the company conducts a visual inspection to ensure that the equipment location allows for proper inspection, operation, cleaning and maintenance and is safeguarded from adjustments that could invalidate the calibration setting. Results of the accuracy test and inspection are recorded on the calibration records.

5. Where possible, calibrations are conducted against certified measurement standards, which have a known relationship to a nationally registered standard. In cases where no standard exists, the basis for calibration is documented in the calibration record.

6. Calibration status of all inspection, measuring and test equipment is identified on a clearly visible sticker. At a minimum, the sticker must indicate the next calibration date. It could also include:
   - equipment number;
   - date of calibration; and
   - who conducted the calibration.

Monitoring and Verification
On a predetermined basis, the company reviews the Master List of Inspection, Measuring and Testing Equipment and the Calibration Records to verify that calibration activities are occurring as scheduled. In addition, the company inspects the calibration stickers on all inspection, measuring and testing equipment to verify that the information is correct. Results of these reviews and inspections are recorded on the Calibration Checklist. On a predetermined basis, the company observes a calibration being performed and reviews training records to ensure that personnel conducting calibration activities have received appropriate training.

Monitoring is verified on a frequency based on the risk of the process or by internal audits. The Calibration GOP is reviewed annually by the Management Review Committee to ensure it continues to be current and appropriate.

**Corrective Action**

The company records all deviations on the Calibration Checklist, and takes and records appropriate corrective action. Appropriate corrective actions could be addressing the deviation immediately by, for example, requiring that a new calibration sticker be placed on a piece of equipment. In cases where inspection, measuring and test equipment fails in operation or is damaged, the equipment is immediately labeled as damaged and removed to prevent inadvertent use. If any piece of equipment is found to be out of calibration, previous production and/or testing results are assessed to determine whether or not the product continues to meet specifications. If out of specification, the product will be handled as per the company’s Control of Non-conformances procedure. When deviations cannot be addressed immediately, the company will resolve the deviation as per its Corrective and Preventive procedure and record the corrective action on the Corrective and Preventive Action Request Form.

**Records**

- Training Records
- Master List of Inspection, Measuring and Testing Equipment
- Calibration Records
- Calibration Checklist
- Corrective and Preventive Action Request Forms
- Internal Audit Reports
- Management Review Committee Meeting Minutes

**Related Documents**

- FSQMS Manual:
  - Management Review
  - Food Safety and Quality System Documentation
  - Control of Documents
  - Human Resource
  - Analysis of Data
  - Control of Non-Conformances
  - Internal Audit
  - Corrective and Preventive Action
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GOP – 007 Personnel Training
GOP – 011 Equipment Maintenance

**References**

Operator's Manual for each piece of equipment
**GOOD OPERATING PRACTICE**

**PROCEDURE: EQUIPMENT CLEANING AND MAINTENANCE**

**PROCEDURE No: GOP—011**

**DATE: REVISION No: DATE:**

**WRITTEN BY: APPROVED BY:**

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**GOP—011: EQUIPMENT CLEANING AND MAINTENANCE**

**Objective**

Equipment and storage bins are cleaned, maintained and inspected on a regular, pre-determined basis to ensure that equipment critical to grain handling and processing operations, and that may impact on the safety and quality of the grain, operate as intended and do not introduce contaminants, including allergens.

**Procedure**

1. The company compiles and maintains a master list of all equipment critical to grain handling, processing and storage and that may impact on the safety and quality of the grain. This list includes all equipment that has been identified on the company HACCP Plan as potentially introducing hazards to a process, e.g. pneumatic probes. The Master Equipment List includes maintenance, cleaning and inspection schedules for each piece of equipment and all storage bins based on its importance and manufacturers’ recommendations. The Master Equipment List indicates for each piece of equipment:
   
i. A description of the equipment and its purpose
   ii. Unique equipment number
   iii. Maintenance and cleaning frequency
   iv. Maintenance or cleaning method [or reference another document that describes the maintenance and/or cleaning method]
   v. Inspection frequency
   vi. Identification of chemicals and/or lubricants used

2. Maintenance and cleaning activities for each piece of equipment and storage bin are assigned to appropriately trained personnel or contractors and indicated on the Master Equipment List. Assigned personnel or contractors conduct maintenance and cleaning activities at the frequency set out in the Master Equipment List, and prepare an Equipment Maintenance Report.

3. Equipment and storage bin inspections are assigned to appropriately trained personnel and indicated on the Master Equipment List. Assigned personnel conduct equipment inspections at the frequency set out in the Master Equipment List using the Equipment Inspection Checklist.

4. Whenever possible, food-grade lubricants are used above the product line or any area where there could be an adverse effect on the product. Activities requiring food grade lubricants are identified on the maintenance schedule. Where non-food grade lubricants must be used (e.g. due to low temperatures), a risk assessment has been conducted to ensure there is minimal potential for contamination of product. If there is a risk for potential contamination, an appropriate control measure is put into place to mitigate the risk.

5. Processing and handling equipment that is not self-cleaning is cleaned following the completion of each run to ensure there is not an accumulation of dust and/or product buildup and to minimize contamination. When equipment is disassembled and
reassembled for cleaning, it must be done according to manufacturer’s instructions or a detailed cleaning SOP.

6. In the case of identity preserved or allergenic products, processing and handling equipment is cleaned out between product types to prevent co-mingling.

7. Prior to the beginning of each run and after any extended period of inactivity, the company conducts a pre-operational assessment of the suitability of the equipment.

8. Whenever maintenance is to be performed, a pre- and post-inventory of all tools is undertaken, to ensure that all tools are accounted for and to eliminate the potential for a tool to inadvertently fall into the product.

**Monitoring and Verification**

On a predetermined basis, the company reviews the Master Equipment List, Equipment Maintenance Reports and Equipment Inspection Checklists to verify that maintenance and inspection activities are occurring as scheduled and reviews training records to ensure that personnel conducting these activities have received appropriate training.

Monitoring is verified on a frequency based on the risk of the process or by internal audits. The Equipment Maintenance GOP is reviewed annually by the Management Review Committee to ensure it continues to be current and appropriate.

**Corrective Action**

The company records all deviation from the equipment maintenance and inspection procedures on the Master Equipment List, and takes and records appropriate corrective action. Appropriate corrective actions could be addressing the deviation immediately by, for example, requiring that personnel receive refresher training. When deviations cannot be addressed immediately, the company will resolve the deviation as per its Corrective and Preventive procedure and record the corrective action on the Corrective and Preventive Action Request Form.

When inspections indicate that a piece of equipment is operating in a manner that may compromise the safety or quality of grain, the equipment is immediately taken out of use, and repairs are initiated and recorded on the Equipment Inspection Checklist. The equipment is re-inspected and verified to be operating as intended after the repairs are completed. Results are recorded on the Equipment Inspection Checklist.

**Records**

Training Records  
Master Equipment List  
Equipment Maintenance Reports  
Equipment Inspection Checklist  
Corrective and Preventive Action Request Forms  
Internal Audit Reports  
Management Review Committee Meeting Minutes
GOOD OPERATING PRACTICE

PROCEDURE: EQUIPMENT CLEANING AND MAINTENANCE

PROCEDURE No: GOP—011

DATE: REVISION No: DATE:

WRITTEN BY: APPROVED BY:

Related Documents

FSQMS Manual:
- Management Review
- Food Safety and Quality System Documentation
- Control of Documents
- Human Resources
- Internal Audit
- Corrective and Preventive Action

GOP – 007 Personnel Training
GOP – 010 Calibration
GOP – 014 Recall and Traceability

References

Operator’s Manual for each piece of equipment

Reference Listing of Accepted Construction Materials, Packaging Materials and Non-Food Chemical Products Database

NSF White Book™ - Nonfood Compounds Listing Directory
http://info.nsf.org/USDA/psnclistings.asp
GOP—012: PURCHASING OF NON-GRAIN INPUTS

Objective

All non-grain inputs and contracted services that are critical to the receiving, storing, processing and shipping of grain are acquired from approved suppliers in order to meet customer quality specifications and grain safety requirements.

Procedure

1. The company evaluates and selects suppliers of non-grain inputs or contracted services based on their ability to meet contract requirements, which may include the suppliers’ quality system or other quality assurance requirements and/or supplier performance. Results of evaluations are recorded on the Supplier Evaluation Record.

2. If a supplier does not already exist for a particular input, product can be purchased from a new supplier, but approval and justification for continued use of the new supplier is contingent upon successful completion of the supplier approval process within a year.

3. Suppliers are evaluated at least annually and this may include facility inspections. In the case of packaging material suppliers, this annual evaluation includes an assessment of any problems associated with the packaging that has compromised the safety or quality of shipped product, or that have resulted in a customer complaint or other non-conformance. The extent of the evaluation is determined by a risk assessment of the supplier in regard to the company’s processes and products.

4. Information is kept on all key suppliers, including name, address, telephone number, contact person (and alternate). This information is also used if required for recall and traceability purposes.

5. The company ensures that product specifications comply with any legislative requirements, will maintain the integrity of the FSQMS, and are at a price and delivery date that satisfies their requirements.

Monitoring and Verification

On a predetermined basis, the company reviews the Purchase Orders and the Supplier Evaluation Records to ensure that inputs are purchased only from approved suppliers.

Monitoring is verified on a frequency based on the risk of the process or by internal audits. The Purchasing GOP is reviewed annually by the Management Review Committee to ensure it continues to be current and appropriate.

Corrective Action

The company records all deviations from the purchasing procedures on the Purchasing Checklist, and takes and records appropriate corrective action. Appropriate corrective actions could be addressing the deviation immediately by, for example, requiring that a
producer or supplier be evaluated and approved. When deviations cannot be addressed immediately, the company will resolve the deviation as per its Corrective and Preventive procedure and record the corrective action on the Corrective and Preventive Action Request Form.

**Records**

Purchase Orders  
Supplier Evaluation Records  
Purchasing Checklist  
Corrective and Preventive Action Request Forms  
Internal Audit Reports  
Management Review Committee Meeting Minutes  
Key Supplier List  
Key Buyer List

**Related Documents**

FSQMS Manual:  
Management Review  
Food Safety and Quality System Documentation  
Control of Documents  
Human Resources  
Customer Related Services  
Production Planning and Control  
Monitoring and Measurement of Product and Process  
Internal Audit  
Corrective and Preventive Action

GOP – 007 Personnel Training  
GOP – 013 Receiving, Handling, Storage and Shipping  
GOP – 014 Recall and Traceability

**References**

Reference Listing of Accepted Construction Materials, Packaging Materials and Non-Food Chemical Products Database  

NSF White Book™ - Nonfood Compounds Listing Directory  
GOOD OPERATING PRACTICE
PROCEDURE: RECEIVING, HANDLING, STORAGE AND SHIPPING

PROCEDURE No: GOP—013

DATE: REVISION No: DATE:
WRITTEN BY: APPROVED BY:

GOP—013: RECEIVING, HANDLING, STORAGE AND SHIPPING

Objective

Potential hazards and risk of contamination is mitigated by ensuring that all incoming grain and packaging material is assessed by trained staff for grain safety hazards (e.g. treated seed, glass, foreign material, odours, mould growth due to excessive moisture, suspected contamination, etc.) and for quality factors according to the Canada Grain Grading Guide and/or customer specifications. Prior to unload, all trucks, containers or railcars delivering grain or packaging material are inspected to ensure they are clean, in good condition and there is not evidence of pests or potentially hazardous materials from previous loads. Incoming grain identified as being contaminated with treated seed shall be rejected at receiving. Measures are taken to ensure that grain deemed defective after receiving is either disposed or reworked in a manner that ensures its safety. Moisture content of grain is measured upon receipt; grain is stored within safe timeframes and monitored at an appropriate frequency; and records of activities maintained. Decisions are made by trained receiving staff on whether to accept and store the product, redirect to a different customer or reject the load, based on the assessment of the sample made on receipt. All storage, movement, cleaning and processing of grain through the facility is recorded to ensure traceability and facilitate the segregation of unprocessed and processed product. Grain and non-grain inputs are stored in conditions that protect their safety and quality. Packaging is rotated on a first-in first-out basis to minimize degradation. Trucks, railcars and containers used for the transport of grain are assessed before and during loading to ensure they do not present a risk to grain safety and quality. Measures are taken to ensure that there is no contamination from chemicals or defective grain. Non-grain inputs must be inspected on receipt to ensure that they will not be a source of contamination.

Procedure

GRAIN RECEIVING AND HANDLING

1. At receiving, the company requires the trucker hauling the grain to provide (or sign) an affidavit indicating previous load hauled and/or cleaning records to ensure that there are no potential contaminants or varieties out of customer specification present.

2. Prior to unload, the company inspects the receiving pit. The truck is inspected to ensure it is clean (e.g. free of excess dirt, salt, water, other types of grain), in good condition (e.g. no rust or corrosion), and that there is no leakage of automotive fluids.

3. Documentation for all grain and inputs received is obtained from the trucker or farmer, and compared against specifications for that delivery.

4. Take a representative sample at delivery.

5. The delivery sample is inspected for potential contaminants (e.g. treated seed, glass) and tested to determine if moisture content is within acceptable limits. The sample is graded for quality attributes and additional testing and/or inspection may be conducted to determine if it meets customer specifications (e.g. for IP grain).
6. Grain that does not meet specifications (e.g. moisture content is beyond acceptable limits), or is suspected of being contaminated (e.g. treated seed, visible mould, odours from pesticide residues, ergot, foreign material such as stones, glass, bones, metal, wood chips and vegetative matter, etc.) or infested, may be directed to cleaning, drying, redirected for another market, or rejected outright. A non-conformance report regarding disposition of this grain is to be completed.

7. A Grain Delivery Record is kept showing date of delivery, sample number, receipt number, name of the farmer and the trucker, the weight, type of grain, grade, and other quality parameters needed to meet customer specifications, as well as binning location of the delivery. Also recorded are cases where grain is not accepted for delivery due to contamination or infestation. Personnel responsible for accepting grain deliveries initial the information recorded on the Grain Delivery Record for each delivery.

8. Movement of grain from bin to bin for cleaning or blending purposes is recorded on the Blending/Cleaning Record.

DEFECTIVE GRAIN

After receiving, when grain is deemed to be a critical food safety hazard by testing and inspection activities:
- it is binned, identified, labeled and stored separately to prevent contamination;
- the company determines appropriate disposition and completes a corrective action report; and
- if rework is required, the movement of the returned or defective grain from bin to bin for cleaning or blending purposes is recorded on the Blending/Cleaning Record.

When grain is deemed defective after receiving due to the detection of glass, ensure that the following controls are in place:
- the contaminated lot is segregated from other lots immediately;
- the contaminated lot is clearly identified to ensure that it is not available for general use;
- a clearly defined procedure is in place in the event that a facility decides to rework product to remove glass; and
- the procedure should detail the quantitative criteria (i.e. amount of glass in screenings; number of passes through the cleaning equipment required; how the amount of product to be reworked will be determined) used to determine when a product is passable and when a product is still unfit for consumption.

GRAIN STORAGE

1. Received grain products are stored in bins according to company binning procedures. Bulk grain is binned according to grain and grade. IP grain is binned to maintain identity and segregation.

2. Grain is stored within safe timeframes and monitored at an appropriate frequency. Safe timeframes are as set out in the Canadian Grain Commission’s Food Safety & Identity Preserved Quality Management System Standard FSIP-STAN 1.1.0 and are listed below.
3. Dockage and screenings removed during cleaning are stored separately in clearly identified bins.

4. Bins are monitored on a predetermined basis to ensure the continued quality and safety of the grain. Bin monitoring and any actions taken to maintain the quality and safety of stored product (e.g. aeration, drying, turning bins etc) are recorded on the Bin Monitoring Record.

5. Bagged product is stored on pallets off the floor and away from walls to minimize potential contamination. Pallets are inspected for cleanliness on receipt and kept in good repair or slip sheets are placed between pallets and bagged product.

RECOMMENDED SAFE STORAGE TIMEFRAMES FOR WET GRAIN

Finished product moisture (FPM) levels will minimize the risk of mould growth due to high moisture grain. FPM levels for storage up to one year are:

- Wheat <14.6%
- Soybeans <14%
- Fababean <16.1%
- Beans <18.1%
- Lentils <13.1%
- Peas <16.1%
- Mustard seed <9.6%
- Oats <13.6%
- Barley – general purpose <14.9%
- Barley – select <13.6%
- Canola <10.1%
- Flax <10.1%

When moisture level of incoming grain exceeds FPM levels, safe storage timeframes are:

- If moisture is > FPM and <=18% dry to below FPM within 40 days
- If moisture is > 18% and <=20% dry to below FPM within 20 days
- If moisture is > 20% and <= 22% dry to below FPM within 10 days
- If moisture is >22% and <= 24% dry to below FPM within 5 days
- If moisture is >24% dry to below FPM within 3 days

GRAIN SHIPPING

1. The facility provides shipping instructions to staff to ensure that any required inspection and testing to meet customer specifications is done prior to shipping. If product is being moved to another facility for cleaning, drying and/or shipping, shipping instructions are provided that include any required conditioning before shipment.

2. The shipping sample is inspected and assessed by trained personnel to determine that the lot of grain still meets customer specifications. Based on the shipping sample inspection and monitoring of screenings, the shipping staff may decide to ship the lot of grain, send it back for cleaning, redirect to another market or reject the lot outright. A non-conformance report would be completed where appropriate. The results are
recorded on the Final Inspection Report along with information on the amount of product shipped, source bin, car or container number, and customer name or identifier. A bill of lading, an invoice and any other required shipping documentation is prepared for each shipment.

3. Prior to loading, the company ensures that the truck, railcar or container will not introduce a contaminant to the shipped product by:
   - inspecting the outside area for damage and/or structural defects that may allow entry of water, infestation or contamination;
   - inspecting the interior to confirm it is in good condition, clean, dry and free of any foreign material buildup, debris, moisture, infestation or grain from a previous load; and
   - verifying it is free of chemical, animal or other odours that may indicate the presence of a contaminant.

4. The results of the inspection are recorded on the Railcar/Container Inspection Report.

5. In the case of shipments by truck and trailer, a signed affidavit from the trucker on previous load hauled is obtained prior to loading.

6. Information is kept on all key buyers, including name, address, telephone number, contact person (and alternate). This information is also used if required for recall and traceability purposes.

RECEIVING OF NON-GRAIN INPUTS

1. Trucks delivering packaging material are inspected to ensure they are odour-free, structurally sound, and that there is no evidence of pests or potentially hazardous materials from previous loads.

2. Packaging materials, polishing agents and chemicals are inspected on receipt to confirm inputs are from an approved supplier and that the products meet specifications as set out in the purchase order.

3. Packaging materials and polishing agents are received separately from chemicals. Inspect packaging material, bulkheads, and/or cardboard liners at receiving to ensure they are odour-free and have no evidence of pests or other contaminants.

4. Chemicals, maintenance and cleaning supplies are received in a location separate from grain receiving pits to prevent potential contamination of grain products.

5. Received non-grain inputs are unloaded and handled in a manner that prevents damage that may result in possible contamination or cross-contamination.

STORAGE OF NON-GRAIN INPUTS

1. Packaging is rotated on a first in, first out basis to minimize degradation of grain bags.
2. Packaging material is stored on pallets off the floor and away from walls to minimize potential contamination.

3. Chemicals are stored securely and separately from grain, packaging materials and polishing agents.

4. Polishing agents are stored securely and separately from grain, packaging materials and chemicals.

FEED AND FEED INGREDIENTS

1. Processed feed grain and feed grain ingredients are kept separate from unprocessed grain and food-grade grain and grain products.

2. Feed grain and feed grain ingredients are received, handled, stored and shipped in a manner which minimizes the risk for cross-contamination and deterioration.

3. Screenings collected for use as a feed ingredient is examined for hazards on a regular pre-determined basis. Screenings that contain physical, chemical or biological hazards in excess of regulatory or customer safety requirements is segregated to prevent unintentional use until its appropriate disposition can be determined.

**Monitoring and Verification**

On a predetermined basis, the company monitors the receiving, handling, storage and shipping practices to ensure that these procedures are being followed and reviews training records to ensure that personnel performing these functions have received appropriate training. Results of these observations are recorded on the Receiving, Handling, Storage and Shipping Checklist.

Monitoring is verified on a frequency based on the risk of the process or by internal audits. The Receiving, Handling, Storage and Shipping GOP is reviewed annually by the Management Review Committee to ensure it continues to be current and appropriate.

**Corrective Action**

The company records all deviations on the Receiving, Handling, Storage and Shipping Checklist, and takes and records appropriate corrective action. Appropriate corrective actions could be addressing the deviation immediately by, for example, by rejecting or addressing a railcar or container if any damage, contamination or odours are noted. Actions to address the deficiency are noted on the Railcar/Container Inspection Report. When deviations cannot be addressed immediately, the company will resolve the deviation as per its Corrective and Preventive procedure and record the corrective action on the Corrective and Preventive Action Request Form.
# GOOD OPERATING PRACTICE

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## Records

- Truckers’ Affidavit
- Grain Delivery Records
- Blending/Cleaning Record
- Railcar/Container Inspection Report
- Receiving, Handling, Storage and Shipping Checklist
- Bin Monitoring Record
- Final Inspection Report
- Bills of Lading
- Invoices
- Non-Conformance Reports
- Corrective and Preventive Action Request Forms
- Internal Audit Reports
- Management Review Committee Meeting Minutes

## Related Documents

- FSQMS Manual:
  - Management Review
  - Food Safety and Quality System Documentation
  - Control of Documents
  - Human Resources
  - Customer Related Services
  - Production Planning and Control
  - Monitoring and Measurement of Product and Process
  - Control of Non-Conformances
  - Internal Audit
  - Corrective and Preventive Action

- GOP – 007 Personnel Training
- GOP – 014 Recall and Traceability
- GOP – 016 Allergen Control

## References

GOOD OPERATING PRACTICE

PROCEDURE: RECALL AND TRACEABILITY

PROCEDURE No: GOP—014

DATE: REVISION No: DATE:

WRITTEN BY: APPROVED BY:

GOP—014: RECALL AND TRACEABILITY

Objective

Traceability of all grain products is established by maintaining receiving, binning, cleaning, storage and shipping records with unique identifier, key supplier or producer and customer information and, where applicable, correct labeling. Traceability and this recall procedure ensure that any contaminated grain or packaging that poses a food safety hazard can be effectively recalled and traced back to suppliers or producers.

Procedure

IDENTIFICATION AND TRACEABILITY

1. Records maintained through receiving, handling (drying, cleaning, processing), storing and shipping ensure traceability of grain from producer delivery to shipping conveyance.

2. Receiving and storage records for packaging materials ensure traceability from supplier through to shipping.

RECALL COORDINATION

1. The company identifies the recall team, and ensures that the following information on team members and substitutes is maintained:
   • Name;
   • Title;
   • recall responsibilities;
   • address; and
   • phone numbers.

   After-hours contact information for team members and substitutes is maintained.

2. The company ensures all team members are trained in the recall procedure and that this is recorded on the team members’ training records.

3. The recall team will maintain the following information, and confirm that contact information is correct on a predetermined basis:
   • CGC HACCP Technical Advisor, (204) 983-3635; and
   • key supplier and buyer information.

RECALL PROCEDURE

When a non-conforming product that poses a potential food safety hazard has already been shipped, the company follows the following recall procedures:

1. The company reviews the shipping, receiving, and cleaning records to trace the contaminated grain from the lot or bin it was shipped forward to all customers that received shipment from that lot or bin while it contained the contaminated grain.
2. The company contacts the customer(s) who received the contaminated grain and co-ordinates the product recall. All recalled product is binned separately and disposed of according to the company’s control of non-conforming product procedures.

3. The company conducts a root cause analysis, including if necessary, inspection or testing of producer delivery samples to evaluate the source and/or cause of the non-conformance. If investigation finds that other shipments may have been affected, these shipments are also located and controlled. The investigation includes the possibility of intentional contamination of the product. If the source of the problem is determined to be a producer delivery, the information is recorded on the Producer Training Evaluation Record and taken into consideration in the training and evaluation of that producer.

4. Inform the CGC if the non-conforming product is contaminated as defined in the Canada Grain Act, which would result in an Order of the Commission directing the disposal of the grain.

5. Inform the CFIA if the non-conforming grain is being processed into food products or if the grain is destined for the feed market. Protocols for this procedure can be found in the CFIA’s “Recall Plans – Manufacturers’ Guide”.

6. Once the recall is complete, the recall team prepares a recall report summarizing all actions taken, people involved, and records reviewed.

**MOCK RECALL**

Using the recall procedure, a mock recall is conducted on grain and non-grain inputs on a predetermined basis to assess effectiveness of the recall process. This is done by identifying a shipment of grain or one lot of non-grain inputs and verifying that it can be traced forward to all customer shipments from that lot, and back to all producer or supplier deliveries that made up that shipment. Customer and supplier contact information is also verified for accuracy.

The results of the mock recall are reported on a Mock Recall Report or the Internal Audit Report if it was conducted in conjunction with the company’s internal audit. If the mock recall reveals a lack of adequate records to ensure full traceability, corrective action is initiated as per the company’s corrective and preventive action procedure.

**Monitoring and Verification**

On a predetermined basis, the company reviews the Mock Recall Reports to verify that mock recalls are being conducted and that have been carried out by personnel with the appropriate training. The result of this review is recorded by noting review results and initialing and dating the record.

This Recall and Traceability GOP is reviewed annually by the Management Review Committee to ensure it continues to be current and appropriate.
Corrective Action

If the annual review reveals that mock recalls are not being conducted according to this GOP, the company initiates corrective action as per its Corrective and Preventive procedure and record the corrective action on the Corrective and Preventive Action Request Form.

Records

Non-Conformance Reports
Corrective and Preventive Action Request Forms
Final Inspection Report
Bills of Lading
Invoices
Producer Evaluation Record
Internal Audit Reports
Management Review Committee Meeting Minutes
Recall Report
Key Supplier List
Key Buyer List

Related Documents

FSQMS Manual: Management Review
        Food Safety and Quality System Documentation
        Control of Documents
        Human Resources
        Identification and Traceability
        Control of Non-Conformances
        Internal Audit
        Corrective and Preventive Action

GOP – 007 Personnel Training
GOP – 012 Purchasing of non-Grain Inputs
GOP – 013 Receiving, Handling, Storage and Shipping
GOP – 016 Contracting IP Grain

References

CFIA: Recall Plans – Manufacturers’ Guide
GOOD OPERATING PRACTICE

PROCEDURE: FOOD DEFENCE & FOOD FRAUD MITIGATION

PROCEDURE No: GOP—015

DATE:                                    REVISION No:                                    DATE:

WRITTEN BY:                                    APPROVED BY:

GOP—015: FOOD DEFENCE & FOOD FRAUD MITIGATION

**Objective**

A risk assessment procedure is developed, documented and performed to determine food defence and food fraud vulnerabilities due to intentional adulteration within the food safety system and/or the facility. Based on the results of the risk assessment, a mitigation plan is written and enacted to prevent sabotage, substitution, counterfeiting or mislabeling of grain and grain products. The mitigation plan is reviewed on an annual basis.

**Procedure**

**FOOD DEFENCE**

1. If the facility is a member in good standing of the Canadian Border Services Agency’s (CBSA) Partners in Protection (PIP) program, or any customs-trade partnership program where a mutual recognition arrangement exists, it will be considered compliant to the CGC FSIP STAN 1.1.0 requirements for food defence.

2. Prior to developing a food defence plan, an initial risk assessment is performed on the security of your facility and its operations. The risk assessment process includes:
   - the identification of the steps of the process flow, and all parties contributing to the process flow of the HACCP plan. This should include suppliers, receiving, storage, handling, processing and shipment of grain and grain products;
   - an assessment of each step of the process flow for potential food defence threats; and
   - an assessment of the organization’s vulnerability to each threat identified.

Unmitigated risks are addressed through corrective actions and the results of the risk assessment shall be used to develop the Food Defence Plan. The risk assessment procedure is documented.

3. Once the risk assessment is complete, a Food Defence Plan is written and implemented, including:
   - employee and visitor security measures:
   - references are attained for new employees to ensure their suitability for employment;
   - work assignment schedules are developed and maintained;
   - if necessary, an employee identification system (e.g. identification tags, colour-coded uniforms) is implemented;
   - access to sensitive areas (utilities and water, sensitive documents) is restricted to authorized personnel only;
   - personal items not required for job performance are prohibited in the grain handling area;
   - any unusual behaviours are reported to supervisors;
   - all visitors are required to report to the appropriate company representative prior to entering the facility;
   - all staff are trained on how to prevent, detect and respond to food defence
threats; and

- supervisors and management are alert for atypical illness or health conditions among employees.

Physical security of the facility:
- all accessible entryways to facilities are secured when not in use and not being monitored;
- all bulk unloading equipment is secured when not in use and not being monitored;
- inspect all equipment prior to use;
- install adequate interior and exterior lighting;
- perform regular security monitoring of the premises;
- keep staff and public parking areas separate from grain receiving and delivery areas;
- restrict access to the laboratory and monitor the location and usage of re-agents, if applicable; and
- limit access to chemical storage areas to authorized personnel only.

The security of the day-to-day operations of the facility, including the security of receiving, handling, storage and shipping of grain and grain products:
- supervise the delivery of grain and non-grain inputs;
- inspect grain and non-grain inputs for evidence of contamination prior to accepting the delivery and reject suspect deliveries;
- acquire non-grain inputs from previously approved suppliers;
- segregate unfit or contaminated goods in a manner that minimizes the potential to compromise other goods;
- keep inventories of incoming goods, and store these goods in a secure location;
- randomly perform security inspections on warehouses, storage containers and vessels; and
- assess the security of off-site or public warehousing locations.

FOOD FRAUD

1. A security assessment is performed on all incoming materials and grain handling processes, taking into account susceptibility to substitution, mislabeling or counterfeiting. The vulnerability assessment takes into consideration:
- the identification of all inputs to the grain handling process and the suppliers of those inputs, including both grain producers and suppliers of non-grain inputs;
- an assessment of the inputs and the associated supply chain for potential opportunities, risks or vulnerability for food fraud;
- an identification and assessment of process steps that pose potential opportunities, risks or vulnerabilities for food fraud; and
- an assessment of the organization's level of risk or vulnerability to each threat identified. Existing control measures that may be used to mitigate the vulnerabilities are identified.

2. A food fraud mitigation plan is developed and implemented. The plan is based on the results of the vulnerability assessment and addresses ways to mitigate identified vulnerabilities any opportunities to improve existing controls. The plan will take into account, but is not limited to, the following risks:
- origin of grain (Canada, USA Other Countries);
- special attributes that increase the value of raw materials or finished product (e.g. non-GMO, organic);
- increasing the volume of high value commodities; and
- historical evidence of fraudulent activity with similar product.

**Monitoring and Verification:**

A food defence and food fraud self-assessment is conducted annually on the facility’s operations and infrastructure to assess security strengths and areas that require improvement. The food defence and food fraud plan is reviewed annually by your Food Safety Team to ensure that it continues to be current and appropriate. The results of both the assessment and the annual review are recorded.

**Corrective Action**

The company records all food defence and food fraud vulnerabilities identified and takes appropriate corrective actions. Appropriate corrective actions could be addressing the deviation immediately by, for example, restricting employee access to sensitive areas such as chemical storage. If the deviation cannot be addressed immediately, the company will resolve the deviation as per its Corrective and Preventive Action procedure and record the corrective action taken on the Corrective and Preventive Action Request Form.

**Records**

Risk Assessment Checklist
Corrective and Preventive Action Request Forms
Internal Audit Reports
Management Review Committee Minutes

**References**

Canadian Border Services Agency Partners in Protection

SSAFE Food Fraud Vulnerability Assessment Tool
www.pwc.com/foodfraud
GOOD OPERATING PRACTICE

PROCEDURE: ALLERGEN CONTROL

PROCEDURE No: GOP—016

DATE: REVISION No: DATE:

WRITTEN BY: APPROVED BY:

GOP--016: ALLERGEN CONTROL

Objective

An allergen control program is implemented to eliminate or reduce the amount of allergenic grains to an acceptable level. Acceptable levels are determined by customer specifications and their intended use of the product (i.e. further cleaning/allergen control or no further allergen control). When no further allergen control is conducted by the customer, a risk assessment is conducted to determine the allergen control measures required. Controls are implemented as appropriate at receiving, handling, storage and shipping to prevent, reduce or eliminate the presence of allergenic grains and minimize the risk associated with cross contamination.

Procedure

1. A risk assessment is conducted to determine which grain-based allergens pose a risk and where in the process cross-contamination can occur. The risk assessment is documented and the results recorded. The results of the risk assessment are used to determine the required allergen controls for the facility.

2. Maximum allowances for allergenic grains (e.g. wheat, soybeans, mustard) are established at receiving based on how effectively they can be removed by cleaning equipment. Grain is inspected at receipt to ensure that allowances for allergenic grains are not exceeded. If incoming grain contains an excessive amount of allergenic grains the lot is rejected or redirected to another market.

3. Grain is received and handled using designated receiving pits, storage bins and grain handling equipment. If this is not possible, establish documented procedures for cleaning and flushing receiving pits, bins and grain handling equipment thoroughly in between commodities. Maintain records of these activities.

4. Grain spills are cleaned up prior to handling grain for customers with allergen specifications to minimize risk of potential cross contamination.

5. Grain that is being sold to customers with allergen specifications is inspected and/or tested prior to shipping. If product does not meet customer specifications, it is reworked or redirected to another market.

6. Personnel are trained in the established allergen control procedures.

7. Cleaning methods used to remove or reduce allergenic grains to an acceptable level are validated to ensure that they are effective. This is done through sampling and inspection and/or testing of end product to ensure that levels of allergenic grains are removed or reduced to an acceptable level. If validation activities indicate that cleaning processes are not effective in reducing allergenic grains to acceptable levels the company takes corrective actions and a root cause analysis is conducted to determine the source of contamination. Validation activities are documented and the results of validation are recorded.
**Monitoring and Verification**

On a predetermined basis, the company monitors the receiving, handling, storage and shipping of grain lots with allergen specifications to ensure that allergen control procedures are being followed. The company reviews the training records to ensure that personnel performing these functions have received appropriate training. Record the monitoring results.

Verify that monitoring has occurred at a frequency appropriate to the risk or through internal audits. The company’s written Allergen Control prerequisite program should be reviewed annually to ensure it continues to be current and appropriate.

**Corrective Action**

The company records all deviations on the Allergen Control Checklist, and takes and records appropriate corrective action. Appropriate corrective actions could be addressing the deviation immediately by, for example, by rejecting or redirecting grain that exceeds the maximum amount of allergenic grains allowed by the company. Actions to address the deficiency are noted on the Receiving, Handling Storage and Shipping Checklist. When deviations cannot be addressed immediately, the company will resolve the deviation as per its Corrective and Preventive procedure and record the corrective action on the Corrective and Preventive Action Request Form.

**Records**

Allergen Control Risk Assessment Record  
Truckers’ Affidavit  
Grain Delivery Records  
Blending/Cleaning Record  
Railcar/Container Inspection Report  
Receiving, Handling, Storage and Shipping Checklist  
Final Inspection Report  
Non-Conformance Reports  
Corrective and Preventive Action Request Forms  
Internal Audit Reports  
Management Review Committee Meeting Minutes

**Related Documents**

FSQMS Manual:  
Management Review  
Food Safety and Quality System Documentation  
Control of Documents  
Human Resources  
Customer Related Services  
Production Planning and Control  
Monitoring and Measurement of Product and Process  
Control of Non-Conformances  
Internal Audit  
Corrective and Preventive Action
GOOD OPERATING PRACTICE

PROCEDURE: ALLERGEN CONTROL

PROCEDURE No: GOP—016

DATE: 

REVISION No: 

DATE: 

WRITTEN BY: 

APPROVED BY: 

GOP – 007 Personnel Training
GOP – 013 Receiving, Handling, Storage and Shipping
GOP – 014 Recall and Traceability
**GOP—017: CONTRACTING IP GRAIN**

**Objective**

All IP grain is acquired from approved producers in order to meet customer quality specifications and grain safety requirements.

**Procedure**

1. Product is purchased for IP programs under contract with producers. Producer requirements are clearly itemized in contracts and are based on customer specifications.

2. Training on the processes and record keeping requirements of the production contracts is provided by the company to contracted producers prior to seeding. Completion of the training is recorded on the Producer Training and Evaluation Record.

3. The company evaluates producers on the basis of the quality of the pre-harvest or on-farm sample obtained, past performance, and compliance with contract requirements as determined by review of the producer’s on-farm records and/or field inspections. Results are recorded on the Producer Training and Evaluation Record.

4. Information is kept on all producers, including name, address, telephone number and alternate contact person. This information is also used if required for recall and traceability purposes.

5. The company ensures that product specifications comply with any legislative requirements, will maintain the integrity of the QMS, and are at a price and delivery date that satisfies their requirements.

**Monitoring and Verification**

On a predetermined basis, the company reviews the Producer Contracts and the Producer Training and Evaluation Forms to ensure that IP grain is received from only from producers who have been trained and evaluated.

Monitoring is verified on a frequency based on the risk of the process or by internal audits. The Purchasing GOP is reviewed annually by the Management Review Committee to ensure it continues to be current and appropriate.

**Corrective Action**

The company records all deviation from the IP contracting procedures on the Purchasing Checklist, and takes and records appropriate corrective action. Appropriate corrective actions could be addressing the deviation immediately by, for example, requiring that a

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1 This GOP is not required for CGC HACCP, but a written procedure for contracting IP grain is required for CIPRS and CIPRS+ HACCP.
producer be evaluated and approved. When deviations cannot be addressed immediately, the company will resolve the deviation as per its Corrective and Preventive procedure and record the corrective action on the Corrective and Preventive Action Request Form.

**Records**

Producer Contracts
Producer Training and Evaluation Records
Purchasing Checklist
Corrective and Preventive Action Request Forms
Internal Audit Reports
Management Review Committee Meeting Minutes
Key Supplier List
Key Buyer List

**Related Documents**

FSQMS Manual:
Management Review
Food Safety and Quality System Documentation
Control of Documents
Human Resources
Customer Related Services
Production Planning and Control
Monitoring and Measurement of Product and Process
Internal Audit
Corrective and Preventive Action

GOP – 007 Personnel Training
GOP – 013 Receiving, Handling, Storage and Shipping
GOP – 014 Recall and Traceability