



Canadian Grain Commission
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Canada

Canadian Grain Commission

Grain Sampling System Standard

CGC GSS STAN 3.0

Uncontrolled Copy

Canadian Grain Commission
Process Verification and Accreditation
Industry Services
900 -303 Main Street
Winnipeg, Manitoba
Canada R3C 3G8

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Review

This Canadian Grain Commission Standard is subject to annual review. Amendments will be issued to ensure the standard continues to meet current needs.

Revision Record

Revisions to this standard will be given a consecutive number and will be dated.

Please ensure that all revisions are inserted, obsolete pages removed, and the record below is completed.

| Revision No. | Revision Content and Pages | Entered by | Date |
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Distribution

| Name | Position |
|------------------------------|----------------------------------------------------------------------------------------|
| Brian Lemon | Director, Industry Services, Canadian Grain Commission (CGC) |
| Laura Anderson | National Manager Process Verification and Accreditation, CGC |
| Elaine Bernardin | Certification and Accreditation Advisor Process Verification and Accreditation, CGC |
| Melonie Stoughton-Ens | HACCP Technical Advisor Process Verification and Accreditation, CGC |
| Accredited Service Providers | Master List at Process Verification and Accreditation Office |

CANADIAN GRAIN COMMISSION

GRAIN SAMPLING SYSTEM STANDARD

1.0 SCOPE

This document outlines the requirements for facilities seeking certification under the Certified Container Sampling Program (CCSP) and third parties seeking accreditation under the Accredited Container Sampler Program (ACSP).

Eligible applicants include those Canadian facilities involved in the processing and handling of grain and third parties wanting to provide sampling services to those facilities. Samples collected under a Grain Sampling System compliant with this standard can be submitted for grading and testing in support of subsequent certification of the lot of grain sampled. Under CCSP, a grain company's own sampling system will be certified, and the Canadian Grain Commission will issue a "Certified Submitted Sample Certificate" based on the inspection of such samples.

Companies or individuals with no physical grain handling infrastructure are eligible to apply under the ACSP to become accredited as third party samplers. The Canadian Grain Commission will issue an "Official Certificate" based on the inspection of samples collected by an accredited third party sampler.

Excluded from these programs are terminal and transfer elevators, flour mills and malting plants.

2.0 REFERENCES

- CGC PROC 3.0.1 *Sampling Methods and Procedures Guide*
- CGC *Sampling Systems Handbook and Approval Guide*
- CGC ASP STAN 4.0 *General Requirements for Accredited Service Providers of Sampling Program Services*
- CGC QSP 4.1.0 *Accreditation and Monitoring of Third Party Samplers and Sampling System Auditors*

3.0 DEFINITIONS AND ACRONYMS

Accreditation – A right bestowed upon an independent organization to act on behalf of the CGC:

- to assess grain companies' IP, food safety and/or sampling management systems, and/or
- to take official samples of grain being shipped by container

Accredited Sampler – An employee of a CGC-accredited third party sampler company, who has been trained, evaluated and deemed competent by CGC to take official samples of container lots of grain on behalf of the CGC. Samples taken by these individuals can be submitted to the CGC for inspection and official certification.

Certification – Formal assurance by the CGC that the company's Grain Sampling System meets the requirements of the Grain Sampling System Standard (CGC GSS STAN 3.0).

Certified Sampler – An employee of a grain company, who has been trained, evaluated and deemed competent by CGC to oversee the company's CGC-certified container sampling program (CCSP). A Certified Sampler's responsibilities may include training and overseeing "Designated Samplers" (see below) to take samples according to the sampling procedures approved by the CGC as part of the company's CCSP.

Designated Sampler – An employee of a grain company who has been trained and deemed competent by the company's "Certified Sampler" to follow the company's sampling procedures within their CGC-certified container sampling program (CCSP). The Designated Sampler must also be evaluated by a CGC-accredited third party auditor during an on-site audit of the company's CCSP. During an on-site audit, the accredited auditor will verify that the designated sampler can correctly take samples, divide, and/or package samples (depending on the individual's assigned responsibilities) according to the company sampling procedures approved by the CGC as part of the company's CCSP.

Registration – Formal assurance that the facility receiving third party sampling services has the proper infrastructure to allow third party samplers access to obtain a representative sample.

Site Schematic – A diagram or plan of a facility or plant which indicates how bulk or bagged product flows within the facility. The schematic should also indicate where in the facility the grain is being sampled. It may include floor plans of the facility and storage/bin locations. The schematic can be hand-drawn, computer or mechanically generated.

ACSP Accredited Container Sampler Program

CCSP Certified Container Sampling Program

CGC Canadian Grain Commission

GSS Grain Sampling System

4.0 GENERAL REQUIREMENTS

The company shall establish, document, implement and maintain a Grain Sampling System (GSS). The company shall:

- identify the processes needed for the GSS,
- determine the sequence and interaction of these processes,
- determine the criteria and methods needed to ensure that the operation and control of these processes are effective,
- ensure the availability of resources and information necessary to support the operation and monitoring of these processes,
- monitor, measure and analyse these processes, and
- implement actions necessary to achieve planned results and continual improvement of these processes.

5.0 DOCUMENTATION REQUIREMENTS

5.1 General

5.1.1 CCSP

The documented GSS for grain handling companies shall consist of, as a minimum:

- a Sampling Manual which includes:
 - a general description of the facility or business, including the address, contact person and contact information, the date, the name of the person(s) who prepared the Sampling Manual, the name of the Sampling System Manager (see Section 6.1), and an organizational chart,
 - the identification of the sampling registration/certification programs to which the manual pertains,
 - documented procedures required by this standard or reference to them,
 - a plant schematic that indicates floor plans, storage/bin locations, product flow and sampling locations,
 - a description of the interaction of the processes of the GSS.
- Standard Operating Procedures (SOPs) for each type of sampling that occurs in the facility(ies), and
- any other documents needed for the planning, operation and control of its processes.

The documentation for the GSS, including the Sampling Manual, shall be approved by the Sampling System Manager (see Section 6.2) and shall be subject to review and approval by the CGC.

5.1.2 ACSP

The documented GSS for third parties conducting sampling-related activities on behalf of the CGC shall consist of, as a minimum:

- a Sampling or other Quality Management System Manual which includes:
 - a general description of the business, including the address, contact person and contact information, the date, the name of the person(s) who prepared the Sampling Manual, the name of the Sampling System Manager and an organizational chart;
 - procedures for ensuring the integrity of the samples, keeping sampling records, and addressing non-conforming product;
 - a description of the interaction of the processes of the GSS.
- a Standard Operating Procedure (SOP) specific for each grain handling or transloading facility for which they are providing sampling services. This procedure describing sampling methods, tools and processes must be submitted and approved by CGC prior to the provision of sampling services.
- a plant schematic that indicates floor plans, storage/bin locations, product flow and sampling location for each of the facilities where samples will be taken.

The documentation shall be subject to review and approval by the CGC.

5.2 Control of Documents

The company shall have documented procedures for:

- reviewing and updating procedures,
- ensuring that changes and the current revision status of documents are identified,
- ensuring that relevant versions of documents are available to staff at points of use through the use of a distribution list,
- ensuring that documents are legible and readily identifiable,
- identifying external documents,
- preventing of the use of obsolete documents, and
- ensuring that the appropriate, up-to-date references cited in the Sampling Manual and/or applicable Standard Operating Procedures are available to staff.

5.3 Sampling Records

5.3.1 Sampling System Records

The company shall maintain records as objective evidence that:

- the GSS meets the requirements of this standard,
- personnel are trained and qualified and approved equipment is used for the company's sampling activities,
- the documentation activities are performed as described in the GSS, and

- effective corrective and preventative action is taken and implemented, as required by Section 9.0.

5.3.2 Sampling Process Control Records

The records shall include any records deemed essential to control the sampling process by the company, which may include the following:

- list of sampling equipment used
- sampling equipment maintenance and clean-out records
- contracts with third party samplers
- sampling records (logs)
- sample submission forms
- receiving records
- lot records
- storage records, bin records
- any corrective action reports
- past assessment reports
- shipping records
- bills of lading

5.3.3 Storing Records

Records shall be stored so that they are protected and easily retrievable. Records shall be retained for a minimum of two (2) years. Only authorized persons shall dispose of records.

6.0 MANAGEMENT RESPONSIBILITY

6.1 Management Commitment

Top management shall provide evidence of its commitment to the development, implementation and continuous improvement of the GSS by:

- appointing a Sampling System, Quality or Operations Manager who will meet the requirements listed in Section 6.2,
- communicating to the company the importance of meeting customer as well as statutory and regulatory requirements, and
- ensuring the availability of resources.

6.2 Sampling System Manager Responsibility and Authority

The Sampling System Manager shall have responsibility and authority that includes:

- ensuring that processes needed for the GSS are established, implemented and maintained,
- ensuring that responsibilities and authorities of those company positions which perform the sampling activities are defined and implemented by appropriately trained staff,
- reporting to top management on the performance of the GSS, including the results of internal and external audits, and any need for improvement, and

- ensuring that the individuals (staff or third parties) performing the sampling activities are not subject to pressures which would adversely affect the quality of their work, independence of judgement or maintenance of integrity when undertaking activities for which they have been authorized by the CGC.

The Sampling System Manager shall be responsible for the development and implementation of a record management and retention system as required in Section 5.3. Records shall include internal and external audit reports and follow-up activities, including corrective actions to non-conformances, and any other records deemed necessary to verify conformance with the program.

The Sampling System Manager shall review the sampling system procedures and activities at defined intervals to ensure their continuing suitability, adequacy and effectiveness in satisfying the requirements of this standard.

While the Sampling System Manager shall be responsible for the overall GSS, he or she may designate qualified personnel or contractors to assist in developing and implementing different components of the system, such as record keeping, document control, administration and internal audits.

7.0 RESOURCE MANAGEMENT

7.1 Provision of Resources

The company shall determine and provide the resources needed to implement and maintain the GSS.

7.2 Human Resources

7.2.1 Employee Training

Staff with GSS responsibilities shall be trained on all components of the GSS for which they have responsibilities.

All staff performing third party sampling under the ACSP must meet the definition of an accredited sampler (see Section 3.0).

Each company with a sampling system certified under the CCSP must have at least one staff member that meets the definition of a certified sampler (see Section 3.0). These staff may train designated samplers (see Section 3.0). Methods of training designated samplers shall be established and documented, with particular attention being given to:

- sampling procedures and required equipment,
- record-keeping, and
- corrective action.

The company shall ensure that all staff with GSS responsibilities are

aware of the relevance and importance of their activities to maintaining the integrity of the sampling system.

Training shall be provided on an ongoing basis. Evaluations of the training to ensure its effectiveness shall be undertaken.

Staff training shall provide a redundancy of skills to ensure continuity of service during absences.

7.2.2 Training Records

Records of education, training, skills and experience shall be retained.

7.2.3 Employee Evaluations

Evaluation of employee work related to the sampling system shall be included as part of the company's employee performance evaluation process.

7.3 Infrastructure and Work Environment

The company shall determine, provide and maintain the infrastructure needed to achieve conformity to sampling requirements. Infrastructure includes, as applicable:

- buildings, workspace and associated utilities,
- appropriate sampling equipment (see Section 8.3), and
- access to product within the company's process that ensures that a representative sample can be taken.

8.0 SAMPLING PROCESSES

8.1 Review of Requirements Related to the Sampling Activities

The company shall review the sampling requirements for the type of certification desired for the product lot. This review shall determine the approved sampling methodologies prior to the sampler undertaking sampling activities. The review shall also ensure that the sampler, company and/or companies (facilities and/or third party samplers) are certified and/or accredited to obtain samples for the required certification.

When sampling is to be conducted by an accredited sampler, the third party is responsible for ensuring that the facility where sampling is to occur is registered by the CGC to receive third party sampling services and for obtaining a site schematic for the facility from the CGC.

8.2 Customer Communication

The company shall determine and implement arrangements for communicating with customers regarding certification requirements, including any sampling for special testing. For grain companies, the customer is the buyer of the product. For third party samplers, the customer is the grain or transloading company.

8.3 Sampling Equipment and Methodology

Sampling processes, methods and equipment shall be documented and approved by CGC prior to certification, either in the Sampling Manual or SOPs. CGC PROC 3.0.1 *Sampling Methods and Procedures Guide* provides guidance on the approved sampling equipment and its proper use.

Each process used to take a sample shall be documented, including the:

- staff or third party responsible for taking the sample,
- process for communicating the approved sampling procedures to sampling staff,
- sampling equipment used, including the cleaning and maintenance processes, if applicable,
- manner and location of taking the sample (including where applicable, the type, make, model and operation of automatic sampling devices),
- mixing and dividing composite samples,
- packaging and labelling submitted samples,
- submission of samples for testing,
- method for identifying and maintaining the integrity of the composite and submitted samples, and
- labelling and storage of the retained sample.

Companies providing third party sampling services must have a documented procedure (SOP) specific to each grain handling or transloading facility for which they are providing sampling services. This procedure must be submitted to and approved by the CGC prior to the provision of sampling services at a facility.

8.4 Identification and Traceability of Samples

Each lot shall be identified with a unique lot number. For bagged lots, each bag shall be individually identified. In the absence of individually stencilled or tagged bags, the container number must be captured as the bag lot identification for certification purposes. Each sample shall be identified in a manner that permits traceability to the lot that it represents. Where third party samplers are used, the third party shall be responsible for ensuring the sample is traceable to the lot.

8.5 Sample Retention

Sample retention periods should be defined. For the CGC Letter of Analysis for the Flax Container Protocol Certified Sampler Program, samples shall be retained for no less than six (6) months.

8.6 Approval of Automatic Samplers

Automatic sampling equipment shall be approved by the CGC as required in the Chapters 2 and 3 of the CGC *Sampling Systems Handbook and Approval Guide*. Records of the CGC approval must be kept.

8.7 Maintaining the Integrity of the Sampled Lot

The company shall ensure that the integrity of the sampled lot is maintained by sealing or fastening the bags, totes or containers prior to or immediately after sampling. The company shall also ensure the integrity of the sample by cleaning/flushing handling systems between crop types. Where third party samplers are used, the third party shall be responsible for verifying these activities.

8.8 Control of Non-conforming Product

The company shall establish and maintain documented procedures to prevent the unintended use or delivery of product that does not achieve the intended certification for which the sample was collected.

Non-conforming product shall be isolated from conforming product. Records shall be kept of the disposition of the non-conforming product.

9.0 INTERNAL AND EXTERNAL AUDITS

9.1 Internal Audits

The company shall conduct internal audits, at least annually, to determine whether their sampling system:

- conforms to the requirements of this Standard and to their sampling procedures, and
- is effectively implemented and maintained.

An internal audit program shall be planned, taking into consideration the status and importance of the processes and areas to be audited, as well as the results of previous audits. The audit criteria, scope, frequency and methods shall be defined. Selection of auditors and conduct of audits shall ensure objectivity and impartiality of the audit process.

Where possible, internal auditors shall not audit their own work. The responsibilities and requirements for planning and conducting audits, and for reporting results and maintaining records shall be defined in a documented procedure. The management responsible for the area being audited shall ensure that corrective actions are taken without undue delay to eliminate detected nonconformities and their causes. Follow-up activities shall include the verification of the effectiveness of the corrective actions taken to resolve the non-conformance and reporting of verification results.

9.2 External Audits

Under CCSP, the company shall be subject to an annual external audit by a CGC-accredited third party auditor.

Company management must provide reasonable assistance to CGC and/or third party auditors during audits in order to allow the audit team to examine records and documents, collect samples, inspect product, equipment and the facility, and/or interview facility staff or third party samplers who are involved in sampling processes.

Under ACSP, the third party company shall participate in a monitoring program as detailed in CGC GSS QSP 4.1.0 *Accreditation and Monitoring of Third Party Samplers and Sampling System Auditors*.

9.3 Corrective and Preventative Action

When corrective actions are required, the details of the problems encountered, their cause and the required corrective action shall be recorded and given to the Sampling System Manager for resolution.

A documented procedure shall be in place to ensure that the corrective action is effective.

When required, sampling system documents shall be amended to reflect the procedures that have been changed to prevent a reoccurrence of the non-conformance.