Chapter 12

SUPPLIER FOOD SAFETY ASSURANCE

A chain is only as strong as its weakest link. Food from unsafe sources is one of the most common causes of foodborne illness and product recalls. Making sure that a facility is hazard free is good food safety practice. However, it's also very important to make sure that sources of incoming materials are hazard free.

Ensuring that incoming materials are free from hazards is the best way to keep dangers away from the food and the facility.

A safe finished product depends on using safe materials in production. A good Supplier Food Safety Assurance (SFSA) program helps ensure that happens.

An SFSA is a formal agreement between a facility and its suppliers. It ensures that those who provide materials will meet stated standards in the products they deliver.

SFSA agreements help create confidence when developing a food safety system. For example, a facility may reduce how often it monitors for a potential hazard because its suppliers have met SFSA requirements in procedures, controls and records.

1.0 PARTS OF A SUPPLIER FOOD SAFETY ASSURANCE PROGRAM

Having many suppliers can reduce control over food safety. The reduced control of sourcing raw materials from many suppliers can outweigh its economic benefits. An important part of a good HACCP system depends on knowing that suppliers understand and assist in controlling hazards in a facility's products.

A strong SFSA program includes:

- A supplier approval program for ingredients, packaging and other services or supplies that may affect food safety;
- An Approved Supplier List;
- Requesting and maintaining (where possible) on file a Letter of Continuing Guarantee from each supplier;
- Supplier performance evaluations;
- Plans for buying from 'non-approved' sources in emergencies;
- Incoming material specifications (if necessary, ask suppliers for input on the facility's incoming product specifications);

- A written specification change procedure to organize and record all changes; and

- Incoming product and release protocol (e.g. based on Certificate of Analysis or internal testing) for the facility's receiving department. This ensures that incoming materials meet required or agreed upon specifications.

By having an agreement with a supplier, the supplier shares responsibility for a safe final product. Share as much information as possible with suppliers when developing and running the facility's food safety system. Good communication helps ensure that the facility's food safety information is up-to-date and correct.

Determine if any materials that arrive could affect food safety. This includes not only raw ingredients and packaging, but also those materials that are added indirectly to the product, such as processing aids. For example, in a smoked product, wood chips (or wood byproducts such as sawdust) are used to produce a natural wood smoke ingredient. In this case, sawdust should be controlled in the SFSA.

Controls involve setting the specifications, or conditions, that arriving materials must meet. It also means that the facility must check those products to confirm their standards. How much each product is controlled depends on what the risks are, and how further processing could affect the risks.

2.0 CHOOSING SUPPLIERS

The first level of control in the SFSA is the Supplier Program. This involves picking the right suppliers.

Ensure that the raw materials, services and other materials received from suppliers are safe. Using approved suppliers is a big first step toward this.

Choosing a supplier that can deliver a safe product should be the goal. Consider the following guidelines when selecting and keeping suppliers:

- Ask suppliers what type of food safety systems they have in place. Facilities with HACCP systems in place or certified against one of the Glabal Food Safety Initiative standards may require less investigation than those without.

- Find out whether suppliers are manufacturers or wholesale warehouses. Find out whether they receive raw materials, products and services from licensed and dependable sources.

- Before signing an agreement, inspect the supplier's warehouse or facility. This is especially important if they supply high-risk products or if there are questions about their food safety systems.

- Once an agreement is in place, check on the supplier from time to time. Check that the supplier's facility remains clean and well run. Base the frequency of these assessments on the risk level of the supplies provided.

- Find out what kind of food safety training the supplier provides to its employees.

- Examine the condition of the supplier's delivery trucks and equipment. These regular "mini" assessments will help shed light on their food safety practices.

- Monitor the supplier's products. Make sure your suppliers provide consistently quality and safe products. The type and level of monitoring will depend on the risk associated with the incoming materials.

Be sure that suppliers are committed to food safety. This commitment can have several benefits. Besides helping product safety, it may also improve the facility's profitability. It can do so by increasing the shelf life of ingredients and finished products.

2.1 Supplier Approval

Get started on supplier approval by sending a simple questionnaire to potential suppliers. How the questions are answered will help to determine if a supplier can meet the facility's food safety requirements.

Here are some questions to consider asking suppliers:

- Does the supplier have a product that meets the contracting facility's specified requirements?

- Is the supplier licensed or permitted by the appropriate regulatory body?
- What types of food safety programs do they now have?
- What is the age and condition of the facility?
- What types of third party or outside audits are done?
- Do they have an SFSA?

After the initial assessment, it is useful to do formal, written and/or visual evaluations. These evaluations can be obtained a variety of ways:

- Checking the supplier's knowledge of manufacturing processes. Look at their process flow diagrams, identification of critical control points, monitoring programs and corrective action or verification procedures.
- Checking the supplier's knowledge of the wholesale process. Look at their product handling procedures, stock turnover programs and corrective action or verification procedures.
- Look for information showing the suppliers can continue to meet product specifications (e.g. able to pass in-house or contracted analytical testing).
- Check their random supplier performance evaluations. These assessments may include internal audits or inspections, third party audits and/or questionnaires.
- Make sure that documents are provided by the supplier to confirm product safety. Examples include Certificates of Analysis and Letters of Continuing Guarantee.
- Decide what actions will be taken if a supplier does not meet requirements (e.g. requests for corrective action).

On-site Visits

To confirm the food safety programs of potential suppliers, it's good practice to visit their facility. Prepare a simple checklist covering important product safety concerns. Use this list to assess the facility during the tour.

Develop separate checklists to assess manufacturing and warehousing facilities. This allows for focusing on the food safety issues important in each type of facility environment.

See Form H.7: Supplier Audit Checklist, Form H.6: Supplier Approval Questionnaire and Form H.5: Supplier Approval Letter.

Consider what is observed on a tour. Use the information to decide if the supplier can meet safety needs. This is a more direct means of supplier evaluation than supplier questionnaires and can be more suitable for products with a high potential for food hazards.

2.2 Approved Supplier List

Once suppliers are decided on, set up an Approved Supplier List. This list will change as suppliers are added or removed and depending on the supplier's performance.

The Approved Supplier List should include:

- What product(s) the supplier is approved for;
- Whether the product is supplied from a wholesaler. If so, include the name of the manufacturer, address, and contact information;
- Details of the supplier name and individual contact information. Get an emergency contact in case of recall;
- Date of approval, and date the supplier started working with the contracting facility; and
- Date and signature of person(s) in the contracting facility responsible for this list.

Some facilities add to their list:

- The facility's name or code for the product being purchased;
- Shipping method or how the item is delivered (e.g. truck, mail, etc.);
- Whether it is bought from a local wholesale market and picked up by staff members; and
- Supplier code number and an explanation of the lot code of the incoming materials.

Enter all this information as soon as the supplier is approved. Update it each time a supplier is added or dropped. Review this list at least once a year. Make sure that all information is up-to-date.

Keep the updated list available to all staff involved in purchasing and receiving. This helps ensure that only the right materials are brought in.

Make sure that old versions of this list are kept and are easy to find. That way, if there's a problem or recall related to any raw materials it's possible to find out who supplied them. The supplier can then be contacted.

See Form B.2: Approved Suppliers List.

3.0 PRODUCT SPECIFICATIONS AND CONTROLS

The second level of control in SFSA is the Product Program. These programs ensure that material from the supplier meets stated specifications.

When raw materials arrive at the facility, be aware of important food safety characteristics. These characteristics or special features can be:

- Chemical (e.g. antibiotic residues, amount of preservation agents);
- Physical (e.g. free from metal contaminants);
- Microbiological (e.g. presence or amount of pathogens or spoilage organisms);
- Sensory (e.g. flavour, texture or odour that may indicate spoilage);
- Allergenic (e.g. residues that may cause reaction in sensitive individuals); and
- Visual (e.g. condition of packaging materials or carrier vehicle).

A facility must decide on what specifications and characteristics are acceptable.

Besides conditions that are important to the safety of the food product (e.g. water content, microbiological levels), there are other things to keep in mind. Examples include the amount of extra materials allowed, temperature of the received products and food particle size. These other requirements may be set by industry, consumers or facility needs.

3.1 Product Specifications

Product specifications are requirements that a product must meet. Specifications may include acceptance criteria or expectations, a list of tests, and analytical procedures. They may also include required or allowed (numerical) limits or ranges for the test results.

Acceptance criteria refer to the specified limits for the amount or presence of contaminants, impurities or foreign material. A lot, batch or shipment must be within these limits to be accepted into the facility.

Document the product specifications to make sure they're in line with the facility's food safety needs. Product specification documents should include:

- Name of ingredient, packaging material, or chemical;
- Internal code number;
- Effective date;
- Description of product;
- Specifications or acceptance criteria;
- Accept or reject levels;
- List of ingredients;
- Allergen information;
- Signature of reviewer (e.g. receiver, Quality Assurance personnel); and
- Date of the most recent review.

The product specification document will become an important control tool for the facility. Make the information under each heading simple but useful.

Suppliers are the best starting point for developing product specifications. Try to discuss and agree upon acceptable criteria with each supplier directly.

B11: Product Specification – Pepper

**B.11 Sample Product Specification –
Black Pepper**

Product Name: <u>Ground Black Pepper</u>   Supplier Name: _____

Code Number: <u>A-001</u>

Product Description:
<u>Ground black pepper to be prepared from the dried, immature berries of Piper nigruml. The colour can vary from light grey to a speckled</u>

<u>black grey</u>

Effective Date: January 17, 2007

Specifications:

Microbiological		
Description	**Action Level**	**Reject Level**
Salmonella	None	Positive
E. coli	None	Positive
Yeast/Mold	<100 per gram	>100 per gram

Any positive result in a sample size of 100 pepper corns.

Any positive result in a sample size of 100 pepper corns

Chemical		
Description	**Action Level**	**Reject Level**
Moisture	11.5%	>12%
Volatile Oils	2.5%	<2%

Organoleptic		
Description	**Action Level**	**Reject Level**
Granulation	4.5%	>5%
Colour	Light-gray to black-gray	Off-white to light grey

Ingredient Listing: <u>Ground Black Pepper</u>

Supplier Program: Sample Product Specification – Black Pepper   Page 1 of 1

Issue Date: _____

Developed by: _____   Date last revised: _____

Authorized by: _____   Date authorized: _____

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Have a process to record changes to specifications. Specifications may change for various reasons, ranging from changes in suppliers to recipe changes. Therefore, each specification should be reviewed and updated at pre-determined intervals. This protects food safety in the finished product. Make sure employees work from the most recent specifications.

3.2 Certificate of Analysis

A Certificate of Analysis (COA) is a document from a supplier that states the identity, purity or microbiological state of a product. It shows that the supplier completed the required testing and that the results meet the product specifications. If this information does not meet the facility's needs completely, get the required information from the supplier.

Some important components of a COA are:

- Date of the COA;
- Name and address of the supplier;
- Name and contact information of the product's processor, if not the same as the distributor;
- Name/UPC (Universal Product Code) number of the product;
- Product lot number;
- Description of tests conducted;
- Test specifications and results; and
- Name, title and qualifications, or training, of person certifying the analysis.

Sample Certificate of Analysis.

- This form should be customized to suit individual facility requirements.

Certificate of Analysis

Supplier Details Company Name: _____

Address: _____

_____

_____

Company Quality Assurance Contact Name: _____

Product Details

Product Name and UPC Code: _____

Date of Manufacture: _____

Process Lot Number: _____

PROCESS TESTING

Attribute	Range of Acceptability	Results	Corrective Action

Microbiological Testing and Food Safety Characteristics

Analysis	Specification	Results	Corrective Action
TPC			
Coliform			
E. coli			
Visible Foreign Material			
Metal Contamination			
Other			

Packaging Integrity

Analysis	Specification	Result	Corrective Action
Seal Integrity			
Weight Control			

Signature/Accreditation of Responsible Personnel: _____

Date of Analysis: _____

Supplier Program: Certificate of Analysis   Page 1 of 1

Issue Date: _____

Developed by: _____   Date last revised: _____

Authorized by: _____   Date authorized: _____

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When the facility receives the COA, review it and compare it to the product specification document. Follow up on any deviations or results that differ unacceptably from acceptance criteria. Investigate and reject those lots that do not meet requirements.

If the COAs received for one product continues to stay outside acceptance criteria, it may be necessary to check into the values for acceptance. This may show that the requirements need to be changed.

Keep all COAs on file longer than the shelf life of the products analyzed. Industry consensus is to keep them for one year after the product's shelf life expires.

3.3 Letter of Continuing Guarantee

Ask for Letters of Continuing Guarantee (LOCG) from all suppliers. Do this for each product supplied. This letter should state that:

- The supplier guarantees their product is not in any way adulterated, or contaminated, and meets food regulations;
- All allergens are listed; and
- The contracting company will be informed of any changes to the formulation (ingredients or way the product is made).

Every year, check and update all LOCGs. Have them signed and dated by a senior manager from the supplying company. These letters do not replace the Certificates of Analysis supplied with each lot or shipment of supplied product.

Letter of Continuing Guarantee.

Sample Letter of Continuing Guarantee

(to be sent from an approved supplier)

(Supplier Company Letterhead)

The Undersigned, _____ (seller)
With offices located at: _____ (address)
_____
_____
_____

Hereby certifies that:

The articles comprising each shipment or other delivery made hereafter is guaranteed as of the date of such shipment, to be on such date; 1. Not adulterated or misbranded within the meaning of Federal or Provincial Food and Drug acts, 2. Not an article which may not be introduced into commerce by the same acts, and 3. Not in violation of the regulations of any other governmental authority.

The seller further guarantees that if any article contains a colour additive or allergen, said additive or allergen has been, is and will be identified as present in the ingredient listing.

The Seller does agree to indemnify and save the Buyer from and against any and all charges, actions, and proceeding brought by any governmental authority against the article or the Buyer for, or on account of, any alleged violation for which the Seller is responsible, by reason of the guarantees a, and b in the paragraphs above, including the loss and reasonable expenses if any, incurred by the Buyer as a result thereof.

The guarantees given herein are continuing and shall be in full force and effect until revoked in writing.

Signature of Officer: _____

Name: _____
Title/Detail of Qualifications: _____

Date: _____

Supplier Program: Sample Letter of Continuing Guarantee   Page 1 of 1
Issue Date: _____

Developed by: _____   Date last revised: _____
Authorized by: _____   Date authorized: _____

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4.0 EVALUATING SUPPLIERS

Just as with a facility's other programs, the SFSAs must have procedures to check how well supplier controls are working. The SFSAs should be verified or checked by knowledgeable staff. Verification points include:

- Inspection of incoming materials;
- On-site audits of suppliers;
- Input material testing; and/or
- A combination of all three.

If specific controls are defined in the facility's supplier food safety agreements, it is best to do some form of on-site verification.

4.1 Incoming Product Control

One place to verify supplier controls is at receiving when supplies reach the facility. Do this by documenting and recording receiving procedures. Documents must confirm that incoming materials meet the facility's product specifications.

Receiving procedures may include:

- Getting a Certificate of Analysis from the supplier;
- Visual inspection at receipt; and
- Analytical laboratory testing.

The receiving procedures chosen will depend on the risk involved with each product.

In some situations the facility's program may require only random spot checks of incoming materials. This is true for incoming materials with a low risk of food safety hazards. It's also true for products where hazards will be reduced to safe levels during further processing.

For higher risk product(s) that have no controls later in processing, it's a good idea to check each individual shipment and make sure they meet specifications.

Analytical Laboratory Testing

Testing may be done to determine the presence or amounts of chemical, biological or physical contaminants. This would include testing for allergens, preservatives or any contaminants. Depending on the facility's resources, tests can be done in-house or contracted out.

All tests should be done by qualified personnel. They must be able to prove they have the knowledge, skills and abilities to produce accurate results.

The test equipment should be reliable and regularly calibrated, or adjusted. Keep a record of the test equipment checks. Compare the results to nationally recognized reference standards and information. If resources are available, check test equipment in-house. Otherwise, send the testing equipment to a certified outside laboratory.

Keep records of all tests for a period of one year or longer than the shelf life of the equipment tested.

4.2 Supplier Audit

Some facilities use supplier audits to confirm the effectiveness of supplier food safety systems.

In a supplier audit, someone from the contracting facility visits the supplier's facility. For products with higher food safety risks, supplier audits help maintain safety controls over incoming materials.

The supplier audit should confirm:

- **Management Commitment** – Make sure that the supplier's plant manager(s) and corporate management encourage and support attention to food safety.

- **Fundamentals** – Check that the supplier's facility and equipment are well maintained. Make sure they allow for sanitary operations and have a well-documented plant and equipment sanitation program. Look to see that actions and records show all programs and SOPs are followed. Confirm that all of the following lead to safe, quality production:
  - Pest control;
  - Chemical control;
  - Personnel training;
  - Material handling and storage;
  - Recall; and
  - Maintenance programs.

- **Food Safety Systems** – Verify that there is a well-developed, written food safety system. Make sure this system includes procedures and records. A preventative program, such as HACCP, should be in place.
  Find out about the use of end product control, microbiological testing and/or foreign material and allergen control. Ask if the suppliers are audited by a third party and if they are willing to reveal the results of their audits.

- **Manufacturing Quality Program** – Where applicable, confirm that the supplier has a program to inspect or test the quality of finished products.

- **Regulatory Requirements** – Check that all required regulations are followed. Also ensure that there's a way to review the corrective actions taken when these regulations haven't been followed.

See Form H.7: Supplier Audit Checklist.

5.0 CORRECTIVE ACTIONS

Another part of the SFSA may be a Supplier Corrective Action Request (SCAR). This is used when evaluations have been done, but the supplier still isn't meeting requirements. This non-conformance information is sent back to the supplier and they are then required to investigate and find the cause of the deviation or problem.

See Form H.9: Sample Supplier Corrective Action Request.

Try to get the supplier to provide documents showing that the problem was found and corrected. These documents should prove that steps were taken to prevent the problem from happening again. Documents may include inspection checklists, operator training records or a change to the process.

The SCAR ensures that there is a way to provide feedback when supplier performance is below standards.

Every time a supplier is given a SCAR, record it in the facility's Supplier Corrective Action Log. A Supplier Corrective Action Log confirms that the facility follows up on issues about supplied products. It also allows the facility to track any continuing problems in follow-up with the supplier in question.

See Form H.8 Supplier Corrective Action Request Log.

6.0 SUPPLIER FOOD SAFETY ASSURANCE FORM TEMPLATES

7.0 SOURCES OF INFORMATION

1. Canadian Food Inspection System Implementation Group. *General Principles of Food Hygiene: Code of Practice, First Edition* (2004).

2. Codex Alimentarius Commission. *Recommended International Code of Practice: General Principles of Food Hygiene, Rev 4* (2003).

3. Canadian Food Inspection Agency. *QMP Reference Standard and Compliance Guidelines - Appendix E: Guidelines for the Development of a Supplier Quality Assurance Agreement.* http://www.inspection.gc.ca/english/anima/fispoi/manman/fimmii/chap3_4_ee.shtml.

4. U.S. Food and Drug Administration Center for Food Safety and Applied Nutrition. *Draft Report of the Food Advisory Committee Dietary Supplement Working Group on Ingredient Identity Testing, Records and Retention* (1999).

5. Hernandez, Jorge. Supplier Relationships Are Key to Safe Food Receiving. Food Management (March 2006). www.food-managment.com/article/11629/.

6. GFTC (Guelph Food Technology Centre). *Designing Your Supplier Certification/Vendor Audit Program Food Quality* (January 2003). www.gftc.ca/articles/2003/vendor.cfm.