

Continuous Improvement

Implementation and Management of Continuous Improvement

Development

To define detail, scope and purpose.

Development

This information can be used to develop food safety and quality programs that meet the requirements of modern Regulatory, Customer and Industry Standards:

- We take the time to explain the expectations and requirements of food safety and quality compliance as these relate to your food safety and quality programs.
- You may choose to use our Premium Resources to build, enhance or upgrade your food safety and quality program.
- We encourage you to share this webpage with any food compliance associates and peers you believe may benefit from our commitment to providing our users with user-friendly information and resources to achieve a superior Food Compliance Culture.
- We welcome your suggestions for additions of general or specific content through the haccp.com Contact Page.

Key Definitions for Continuous Improvement

- Continuous Improvement: To raise the performance of an organisation through an ongoing process of identifying and improving missions, goals, objectives and action strategies through activities that may include, but are not limited to, internal reviews, internal or external assessments, service user feedback, complaints and other service delivery issues.
- Kaizen: A Japanese term meaning change for the better, describing the practice of making small, ongoing improvements involving all people in an organisation.
- Key Performance Indicator or KPI: A quantitative or qualitative measure that enables the overall delivery of a service to be assessed against the goals or targets set by an entity in its strategic plan. KPIs are commonly associated with Key Result Areas (KRAs), the areas of performance in which results matter most.
- Management Review: A planned review by senior management of the performance of the food safety and quality system, to confirm its ongoing suitability, adequacy and effectiveness and to identify opportunities for improvement.
- PDCA (Plan, Do, Check, Act): A four-step cycle for controlled improvement in which a change is planned, implemented, checked against the expected results, and then standardised or revised.
- Process Improvement: A planned and structured activity to improve a process so that one or more of its outcomes are replaced by a more efficient or effective outcome.
- Root Cause Analysis: A structured method of identifying the underlying cause of a problem or non-conformance so that effective action can prevent it from recurring.

Continuous Improvement Development

When considering the development, documentation, and implementation of Continuous Improvement within food safety and quality management systems, the following information should be considered to ensure effective outcomes:

About Continuous Improvement



Improvement starts with people at every level discussing how to do things better.

Continuous improvement is the practice of developing and maintaining systems through which a business can always improve. The term refers to the ongoing need to improve the effectiveness of a management system. The effectiveness of any food safety or food quality system can be continually improved through the use of communications, management reviews, internal audits, corrective actions, system updates, and verification and validation activities.

Continuous improvement is more of a philosophy than a process or system. It requires everyone in the food business, from senior management through to operational team members, to adopt a mindset of continually looking for ways to improve processes and systems by making them more efficient and effective. In most contemporary food businesses, continuous improvement usually takes the form of process improvement activities or projects. A process improvement activity or project is a planned and structured activity that improves a process, so that one or more of its outcomes are replaced by a more efficient or effective result.

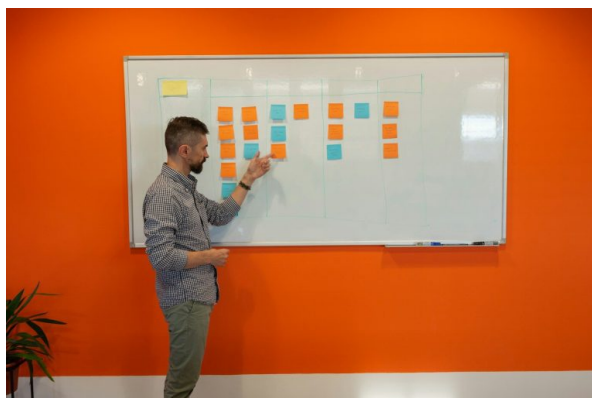
Continuous improvement relies on the following attributes to ensure success in its intended scope and purpose:

- A commitment by all staff to continuous improvement of processes, products and services;
- Input and involvement of all stakeholders in identifying and implementing quality improvements;
- Systematic use of qualitative and quantitative feedback as the basis for identifying and prioritising improvement opportunities.

The benefits of continuous improvement include:

- Market leadership, through a commitment to continually improving business performance;
- The ability to ensure customer requirements are met and customer expectations are exceeded, through flexibility and quick reaction to customer demand;
- Consistency in the business approach to improving operational capabilities;
- Increased participation from people, through training in the tools and methods of continual improvement;
- The ability to measure continuous improvement through the establishment of goals and targets;
- Acknowledgment of improvement activities.

Plan, Do, Check, Act (PDCA)



The Plan, Do, Check, Act cycle turns improvement ideas into planned, tracked actions.

The Plan, Do, Check, Act (PDCA) cycle is a widely used framework for structuring continuous improvement. It treats improvement as a repeating cycle rather than a one-off project:

- Plan: Identify the opportunity or problem, analyse its causes, and define the objective, the action required and how success will be measured;
- Do: Implement the planned change, ideally on a small scale first, and record what happens;
- Check: Compare the results against the objective and the expected outcome, using monitoring records, KPI results and feedback;
- Act: Standardise the change where it has been effective and update documentation and training, or return to the planning step where it has not.

Applying the cycle consistently means improvements are based on evidence, are recorded, and become part of the way the business operates.

Sources of Improvement Opportunities



Suggestions and ideas from team members are a valuable source of improvement opportunities.

Improvement opportunities can be identified from many sources across the food business, including:

- Internal audit findings;
- Customer complaints and feedback;
- Near misses and incidents;
- KPI results and trends;
- Supplier performance;
- Corrective action and preventative action trends;
- Management review outcomes;
- Suggestions and ideas from team members.

Opportunities should be recorded, assessed for risk and benefit, prioritised, assigned to a responsible person and tracked through to completion.

Regulatory and Industry References

Continual improvement is a requirement of the major quality and food safety management system standards. The following references may assist in the development of your program:

- ISO 22000:2018 Food safety management systems: Requirements for any organization in the food chain (International Organization for Standardization);
- ISO 9001 Quality management systems: Requirements (International Organization for Standardization).

Your certification body, regulator and customers may also specify continual improvement requirements that apply to your Continuous Improvement program.

Continuous Improvement Development Key Points

- Continuous Improvement programs must be developed to meet relevant Regulatory, Industry, and Customer standards and requirements;
- The Senior Management of your business is committed to providing adequate resources for the development of your Continuous Improvement program;
- Should you require additional resources for the development of Continuous Improvement program elements, please discuss this with the relevant Senior Management representative;
- A properly developed Continuous Improvement program will provide a strong framework for your business to maintain compliance with relevant Regulatory, Industry, and Customer standards and requirements;
- A poorly developed Continuous Improvement program will not fully support your business and may contribute to significant non-compliance against Regulatory, Industry, and Customer standards and requirements.

Documentation

To establish the developed detail in a viewable format to facilitate information.

Documentation

Document: A document provides guidance and/or direction for performing work, making decisions, or rendering judgments that affect the safety or quality of the products or services that customers receive.

Documented policies, procedures, work instructions, and schedules form the basis of any food safety and quality management system. The following documentation formats may be considered to ensure ongoing compliance with specified requirements for Continuous Improvement:

- Continuous Improvement policy;
- Continuous Improvement development procedures;
- Continuous Improvement implementation procedures and work instructions;
- Continuous Improvement monitoring procedures;
- Continuous Improvement corrective and preventative action procedures;
- Continuous Improvement verification schedule;
- Continuous Improvement verification procedures;
- Continuous Improvement validation schedule;
- Continuous Improvement validation procedures;
- Continuous Improvement training procedures.

If your food business supplies foodstuffs manufactured to a customer's specifications, it is important to consider any specific Continuous Improvement Documentation requirements in relation to their items.

You may wish to visit the Continuous Improvement Templates section of haccp.com for examples of Continuous Improvement documentation, record, and resource formats commonly applied within food safety and quality systems.

Continuous Improvement Documentation Key Points

- Continuous Improvement programs must be documented to meet relevant Regulatory, Industry, and Customer standards and requirements;
- All documented Continuous Improvement program elements must be controlled to ensure compliance;
- Key documented Continuous Improvement program elements should be available to your business team at all times to ensure they can facilitate required tasks;
- A properly documented Continuous Improvement program will provide a strong framework for your business to maintain compliance with relevant Regulatory, Industry, and Customer standards and requirements;
- A poorly documented Continuous Improvement program will not fully support your business and may contribute to significant non-compliance against Regulatory, Industry, and Customer standards and requirements.

Implementation

To facilitate the application of the documentation.

Implementation

Implementation: Implementation is the application of documented food safety and quality system elements into the actual business operation.

The implementation of Continuous Improvement within any food business requires genuine commitment from senior management, staff, and visitors to ensure the nominated goals of implementation are achievable on an ongoing basis. It is a step that requires significant planning and consideration of general and specific food business circumstances to ensure the outcomes of Continuous Improvement do not negatively impact the safety and quality of the food items dispatched from the business.

Implementation of Continuous Improvement must include a clear definition of responsibilities and authorities for all levels of participation by senior management, staff, and visitors to the site.

When implementing Continuous Improvement within the food safety and quality system, you may wish to consider the following requirements before completion:

- Communication and display of the Continuous Improvement policy;
- Completion of Verification and Validation of Continuous Improvement development procedures;
- Availability of Continuous Improvement implementation procedures and work instructions;
- Availability of Continuous Improvement monitoring procedures and record templates where applicable;
- Availability of Continuous Improvement corrective and preventative action procedures and record templates where applicable;
- Availability of the Continuous Improvement verification schedule;
- Availability of Continuous Improvement verification procedures;
- Availability of the Continuous Improvement validation schedule;
- Availability of Continuous Improvement validation procedures;
- Completion of Continuous Improvement training procedures;
- Completion of product design and development requirements related to Continuous Improvement;
- Completion of process design and development requirements related to Continuous Improvement;
- Completion of training for team members who have responsibilities and involvement within Continuous Improvement;
- Completion of competency approval for team members who have responsibilities and involvement within Continuous Improvement.

Our Premium Resources include signage inviting team members to submit improvement ideas and a work instruction for Key Performance Indicators for business improvement, which may assist implementation.

If your food business supplies foodstuffs manufactured to a customer's specifications, it is important to consider any specific Continuous Improvement Implementation requirements in relation to their items.

Continuous Improvement Implementation Key Points

- Continuous Improvement programs must be implemented to meet relevant Regulatory, Industry, and Customer standards and requirements;
- Your Continuous Improvement program must be fully implemented as per relevant documented Policies, Procedures, and Work Instructions;
- The implementation of Continuous Improvement requires a commitment to the provision of resources by the Senior Management of your business;
- A properly implemented Continuous Improvement program will provide a strong framework for your business to maintain compliance with relevant Regulatory, Industry, and Customer standards and requirements;
- A poorly implemented Continuous Improvement program will not fully support your business and may contribute to significant non-compliance against Regulatory, Industry, and Customer standards and requirements.

Monitoring

To review, confirm and document evidence of the implementation against documented limits.

Monitor



KPI results trended against targets show whether performance is improving.

Monitoring: Monitoring is the act of reviewing and confirming measurable parameters of a defined process or product status.

Monitoring requirements within food industry sectors are generally identified against limits of acceptability defined within HACCP plans, implementation procedures, and work instructions. Monitoring usually includes some element of record-keeping, which may be maintained manually or through digital systems. It is important to consider that advancements in technology have produced many systems and processes that are self-monitored or self-adjusted when variances are identified. Regardless of the system used, the goal of any monitoring activity is to provide sufficient evidence that any limit of acceptability has been met.

Traditional Continuous Improvement monitoring requirements include manual recording and the application of corrective actions when the results of monitoring are found to be outside acceptable limits. Corrective Actions should also generally be strongly linked to the monitoring process where applied to ensure full traceability of the applied actions.

The following examples of monitoring activities and record formats may apply to Continuous Improvement:

- Management Review meeting minutes: Records of the outcomes, decisions and actions arising from each Management Review meeting;
- Improvement ideas register: A record of improvement ideas and suggestions received, and the decision made on each;
- KPI records: KPI results trended against targets;
- Improvement action records: The status of improvement actions through to completion.

Management Review meeting minutes commonly include the following agenda items:

- Review date, start time and finish time;
- Attendees and apologies;
- Previous meeting outcomes and outstanding items;
- Current meeting agenda, scope and purpose;
- Standard updates;
- HACCP manual;
- Policy and objectives;
- Production and process performance;
- Product conformity and specifications;
- KPI review;
- Customer complaints, including trending of the number and type of complaints;
- Allergen management;
- Preventative and corrective actions;
- Internal and external audit review;
- Product verification activities;
- Food safety and quality system verification activities.

If your food business supplies foodstuffs manufactured to a customer's specifications, it is important to consider any specific Continuous Improvement Monitoring requirements in relation to their items.

You may wish to visit the Continuous Improvement Templates section of haccp.com for examples of Continuous Improvement documentation, record, and resource formats commonly applied within food safety and quality systems.

Continuous Improvement Monitoring Key Points

- Monitoring provides real-time confirmation and evidence that your risk-based FS&Q Controls are effectively implemented;
- Continuous Improvement programs must be monitored to meet relevant Regulatory, Industry, and Customer standards and requirements;
- Monitoring of Continuous Improvement must be facilitated as per relevant documented Policies, Procedures, and Work Instructions;
- Nominated monitoring records for Continuous Improvement must be maintained as per relevant documented Policies, Procedures, and Work Instructions;
- A properly monitored Continuous Improvement program will provide a strong framework for your business to maintain compliance with relevant Regulatory, Industry, and Customer standards and requirements;
- A poorly monitored Continuous Improvement program will not fully support your business and may contribute to significant non-compliance against Regulatory, Industry, and Customer standards and requirements.

Corrective Action and Preventative Action

To apply "real time" interventions to documented monitoring limits.

Corrective Action

Corrective Action: Corrective action is mandatory action to be taken when a deviation from the Quality System occurs, particularly in relation to a Critical Control Point.

Preventative Action: At any step in the process where a hazard has been identified, preventative action must be put into place to prevent re-occurrence.

Corrective Action and Preventative Action are implemented to ensure that any identified non-conformance issues are documented, investigated, and rectified within appropriate timeframes. Corrective action is any action applied to regain control over a product, process, policy, or procedure that has been identified as being non-conforming or

outside nominated limits of acceptability. Preventative action is any action applied to prevent any identified non-conformance from reoccurring.

The outcomes of corrective and preventative actions should result in regained process control after effective application. Specified corrective actions are commonly linked to the HACCP Plans and the food business certification process.

Below are Corrective Action and Preventative Action examples which may be associated with Continuous Improvement related non-conformance:

- Review of the Continuous Improvement policy;
- Review of Continuous Improvement development procedures;
- Review of Continuous Improvement implementation procedures and work instructions;
- Review of Continuous Improvement monitoring procedures;
- Review of Continuous Improvement corrective and preventative action procedures;
- Review of the Continuous Improvement verification schedule;
- Review of Continuous Improvement verification procedures;
- Review of the Continuous Improvement validation schedule;
- Review of Continuous Improvement validation procedures;
- Review of Continuous Improvement training procedures;
- Re-training in Continuous Improvement;
- Review of management review activities to include Continuous Improvement as an agenda item;
- Initiation of 'product hold' procedures where safety or quality may be compromised;
- Initiation of product recall or product withdrawal procedures where investigations show that there is a substantial safety or quality risk to the released product;
- Contacting stakeholders including customers regarding any confirmed or potential Continuous Improvement concerns involving their product.

If your food business supplies foodstuffs manufactured to a customer's specifications, it is important to consider any specific Continuous Improvement Corrective Action requirements in relation to their items.

You may wish to visit the Corrective Action and Preventative Action section of haccp.com for examples of best practice applications for this food safety and quality system element.

Continuous Improvement Corrective Action and Preventative Action Key Points

- The implementation of Corrective Action and Preventative Action provides confidence that your FS&Q Program is effectively implemented and that FS&Q criteria are being met;
- Where deviations or variations are observed, Corrective Action and Preventative Action must be facilitated to meet relevant Regulatory, Industry, and Customer standards and requirements;
- Corrective Action and Preventative Action of Continuous Improvement must be facilitated as per relevant documented Policies, Procedures, and Work Instructions;
- Records of Corrective Action and Preventative Action for Continuous Improvement must be maintained as per relevant documented Policies, Procedures, and Work Instructions;
- Proper application of Corrective Action and Preventative Action for your Continuous Improvement program will provide a strong framework for your business to maintain compliance with relevant Regulatory, Industry, and Customer standards and requirements;
- Poor application of Corrective Action and Preventative Action for your Continuous Improvement program will not fully support your business and may contribute to significant non-compliance against Regulatory, Industry, and Customer standards and requirements.

Verification

To review and confirm documented monitoring and corrective actions against documented parameters.

Verify



Completed records are reviewed to verify that improvement actions were effective.

Verification: The act of reviewing, inspecting, testing, checking, auditing, or otherwise establishing and documenting whether items, processes, services, or documents conform to specified requirements.

Verification is the detailed review of all food safety and quality system elements to confirm that they are effectively developed, documented, implemented, monitored, and reviewed. All food safety and quality system elements, including documented policies, procedures, training, HACCP plans, and their operational applications must be verified on an ongoing scheduled basis. The verification process commonly includes a defined schedule for which verification activities are required, how often they are conducted, who is responsible, and detailed documented procedures for each nominated verification activity.

The general goal of an established verification process is to ensure any systemic non-conformance issues are identified and rectified within an appropriate timeframe. When non-conformance issues are identified through the verification process, Corrective Actions and Preventative Actions should be implemented to ensure they do not impact the effectiveness of the food safety and quality system.

The following examples of verification activities may apply to Continuous Improvement:

- Review of the Continuous Improvement policy;
- Review of Continuous Improvement development procedures;
- Review of Continuous Improvement implementation procedures and work instructions;
- Review of Continuous Improvement monitoring procedures;
- Review of Continuous Improvement monitoring records;
- Review of Continuous Improvement corrective and preventative action procedures;
- Review of the Continuous Improvement verification schedule;
- Review of Continuous Improvement verification procedures;
- Review of the Continuous Improvement validation schedule;
- Review of Continuous Improvement validation procedures;
- Review of Continuous Improvement training procedures;
- Review of Continuous Improvement performance since the last review and historically;
- Review of trend data (such as complaints, non-conformances and audit findings) to confirm that improvements are effective;
- Review of KPI results against targets;
- Effectiveness review of completed improvement actions;
- Inclusion of Continuous Improvement as an agenda item within the Management Review Process.

If your food business supplies foodstuffs manufactured to a customer's specifications, it is important to consider any specific Continuous Improvement Verification requirements in relation to their items.

You may wish to visit the Verification Activities section of haccp.com for examples of best practice applications for this food safety and quality system element.

Continuous Improvement Verification Key Points

- Your verification program provides evidence that your FS&Q Controls have worked;
- Continuous Improvement programs must be verified to meet relevant Regulatory, Industry, and Customer standards and requirements;
- The verification of Continuous Improvement must be facilitated as per relevant documented Policies, Procedures, and Work Instructions;
- Nominated verification records for Continuous Improvement must be maintained as per relevant documented Policies, Procedures, and Work Instructions;
- A properly verified Continuous Improvement program will provide a strong framework for your business to maintain compliance with relevant Regulatory, Industry, and Customer standards and requirements;
- A poorly verified Continuous Improvement program will not fully support your business and may contribute to significant non-compliance against Regulatory, Industry, and Customer standards and requirements.

Validation

To confirm the documented monitoring or procedural limits.

Validate

Validation: The process of gathering evidence to provide a scientific basis for the documented act of demonstrating that a procedure, process, and activity will consistently lead to the expected results. It often includes the qualification of systems and equipment.

Validation is the provision of evidence to support the limits of control or acceptability for food safety or quality parameters nominated within systemic elements. Limits of control or acceptability are commonly included within documented food safety and quality systems elements such as procedures, HACCP plans, and specifications.

Common sources of validation include regulatory and legislative standards, finished product specifications and customer requirements, industry codes of practice and guidelines, verified and validated research, historical product, and process control outcomes, and analytical testing.

The general goal of an established validation process is to ensure any systemic non-conformance issues are identified and rectified within an appropriate timeframe. When non-conformance issues are identified through the validation process, Corrective Actions and Preventative Actions should be implemented to ensure they do not impact the effectiveness of the food safety and quality system.

Validation activities are commonly defined within the verification schedules and procedures of established food safety and quality management systems.

The following examples may apply to validation of the limits of control or acceptability for Continuous Improvement:

- Confirmation of nominated food safety and food quality control limits for Continuous Improvement. These limits may apply to regulatory, industry, customer, or finished product specifications;
- Confirmation that KPI targets are appropriate and achievable;
- Confirmation that improvements deliver the intended outcome;
- Confirmation of analytical testing methods being used to confirm the effectiveness of Continuous Improvement and ensure the accuracy of outcomes.

If your food business supplies foodstuffs manufactured to a customer's specifications, it is important to consider any specific Continuous Improvement Validation requirements in relation to their items.

You may wish to visit the Validation Activities section of haccp.com for examples of best practice applications for this food safety and quality system element.

Continuous Improvement Validation Key Points

- Your validation program provides evidence that your FS&Q Controls will work;
- Continuous Improvement programs must be validated to meet relevant Regulatory, Industry, and Customer standards and requirements;
- The validation of Continuous Improvement must be facilitated as per relevant documented Policies, Procedures, and Work Instructions;
- Nominated validation records and supporting documentation for Continuous Improvement must be maintained as per relevant documented Policies, Procedures, and Work Instructions;
- A properly validated Continuous Improvement program will provide a strong framework for your business to maintain compliance with relevant Regulatory, Industry, and Customer standards and requirements;
- A poorly validated Continuous Improvement program will not fully support your business and may contribute to significant non-compliance against Regulatory, Industry, and Customer standards and requirements.

Training, Competency and Resources

Skills, knowledge and competency requirements to facilitate development, documentation, implementation, monitoring, corrective action, verification and validation of every Food Safety and Quality System Element.

Skills and Knowledge

Skills and Knowledge: Skills and knowledge are attributes of human interactions commonly linked to competency within any specific job-related task.

Training and competency requirements for Continuous Improvement must be ongoing, including regularly scheduled reviews to ensure the effectiveness of training and competency outcomes.

Team members who have defined responsibilities regarding Continuous Improvement should have knowledge including:

- Basic Continuous Improvement requirements;
- Positive outcomes of Continuous Improvement;
- Negative outcomes of a lack of Continuous Improvement;
- Current Continuous Improvement procedures, methods, and techniques;
- General operational, corporate, and social awareness regarding Continuous Improvement;
- Regulatory, industry, and customer requirements regarding Continuous Improvement.

Team members who have defined responsibilities regarding Continuous Improvement should have skills including:

- Competency in basic Continuous Improvement;
- Effective application of current Continuous Improvement procedures, methods, and techniques;
- Root cause analysis and problem solving techniques, such as 5 Whys and fishbone diagrams;
- The basic development, documentation, and implementation of HACCP and Prerequisite Programs within the food industry sector.

Team members who have defined responsibilities regarding Continuous Improvement should have access to resources including:

- Continuous Improvement training;
- Continuous Improvement associations and events;
- Regulatory standards, industry and customer information, and updates regarding Continuous Improvement;
- Incidents within the food industry sector regarding Continuous Improvement;
- Commitment to Continuous Improvement by senior management;
- Suitably qualified food industry professionals with verified experience in Continuous Improvement;
- Effective communication systems including email, internet, and phone through which Continuous Improvement information can be sent and received within suitable timeframes.

If your food business supplies foodstuffs manufactured to a customer's specifications, it is important to consider any specific Continuous Improvement Training, Competency, and Resources requirements in relation to their items.

You may wish to visit the Training, Competency, and Resources section of haccp.com for examples of best practice applications for this food safety and quality system element.

Continuous Improvement Training, Skills, and Knowledge Key Points

- Your Training, Skills, and Knowledge program ensures all participating personnel, visitors, and contractors have the required skills and knowledge to effectively facilitate the requirements of your FS&Q Program;
- Training, Skills, and Knowledge programs for Continuous Improvement must be facilitated to meet relevant Regulatory, Industry, and Customer standards and requirements;
- Training, Skills, and Knowledge programs for Continuous Improvement must be facilitated as per relevant documented Policies, Procedures, and Work Instructions;
- Training, Skills, and Knowledge records for Continuous Improvement must be maintained as per relevant documented Policies, Procedures, and Work Instructions;
- Properly applied Training, Skills, and Knowledge programs for Continuous Improvement will provide a strong framework for your business to maintain compliance with relevant Regulatory, Industry, and Customer standards and requirements;
- Poorly applied Training, Skills, and Knowledge programs for Continuous Improvement will not fully support your business and may contribute to significant non-compliance against Regulatory, Industry, and Customer standards and requirements.



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haccp.com was created to support food businesses and food industry professionals in achieving and maintaining the stringent requirements of food industry compliance.

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