This workbook is provided to assist in the implementation of your SQF Food Safety Management System Package.

The workbook is divided into 8 steps that are designed to assist you in implementing your food safety management system effectively:

- ✓ Step One: Introducing the SQF Food Safety System
- ✓ Step Two: Senior Management Implementation
- ✓ Step Three: Food Safety Management Implementation
- ✓ Step Four: Good Manufacturing Practices Implementation
- ✓ Step Five: Project Planning
- ✓ Step Six: HACCP Implementation
- ✓ Step Seven: Training
- ✓ Step Eight: Final Steps to SQF Certification

Note: The IFSQN SQF Food Safety Management System Package includes a Start Up Guide which should be consulted to guide you through the contents of the package.

1
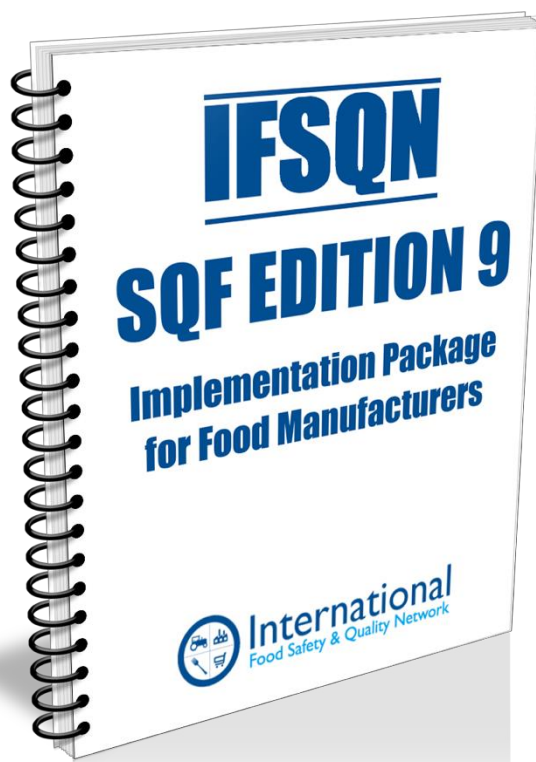
This Implementation Workbook compliments the IFSQN SQF Food Safety Management System Package which is an ideal package for organizations looking to meet the requirements of the SQF Food Safety Code for Manufacturing Edition 9

The IFSQN SQF Food Safety Management System Package contains:

- ✓ A comprehensive set of editable Food Safety Management System Procedures
- ✓ A comprehensive set of editable Good Manufacturing Practice Procedures
- ✓ A range of easy to use Record Templates
- ✓ Additional HACCP Manual including the HACCP Calculator
- ✓ Introduction to the SQF Food Safety Management System Training Modules
- ✓ Allergen Risk Management Tools
- ✓ Food Fraud Risk Assessment Tool
- ✓ Supplier Risk Assessment Tool
- ✓ Internal Auditor Training
- ✓ HACCP Training

As a preliminary to Step 1 we recommend that the you obtain a copy of the SQF Food Safety Code for Manufacturing Edition 9 from the SQFI website

2

Step One: Introduction to SQF Food Safety Management System

Training Presentations for Module 2: SQF System Elements for Food Manufacturing and Module 11: Good Manufacturing Practices for Processing of Food Products are provided. The presentations will introduce the SQF Food Safety Management System Package to the management team and explain how the Food Safety Management System Tools & Templates match and comply with the SQF modules.

Step Two: Senior Management Implementation

A Senior Management Implementation checklist is provided that establishes your Food Safety Management System fundamentals including Food Safety Policies and Objectives.

The checklist guides Senior Management:

- ✓ in planning the establishment of the FSMS
- ✓ in providing adequate support to establish the FSMS
- ✓ in ensuring there is adequate infrastructure and work environment
- ✓ in allocating responsibility and authority

This stage requires the Senior Management to meet and establish the foundations for the Food Safety Management System:

- ✓ Formulating a checklist of Customer, Regulatory, Statutory and other relevant Food Safety requirements
- ✓ Decide which Food Safety requirements the company should address and develop relevant policies.
- ✓ Based on the Food Safety Policy Management Policies establish Food Safety Objectives
- ✓ Define the scope and boundaries of the FSMS
- ✓ Plan the establishment of the FSMS using the project planner
- ✓ Provide adequate support to establish the FSMS
- ✓ Ensure there is adequate infrastructure and work environment
- ✓ Allocate responsibility and authority
- ✓ Assess, plan and establish appropriate internal and external communication (including the food chain) channels
- ✓ Plan to establish a food safety culture

A meeting should now be coordinated involving all the Senior Management Team.

Senior Management FSMS Implementation Meeting

Date

Time

Venue

Agenda

1.   Formulating a checklist of Customer, Regulatory, Statutory and other relevant Food Safety requirements
2.   Decide which Food Safety requirements the company should address and develop relevant policies.
3.   Based on the Food Safety Policy Management Policies establish Food Safety Objectives
4.   Define the scope and boundaries of the FSMS
5.   Plan the establishment of the FSMS using the project planner
6.   Provide adequate support to establish the FSMS
7.   Ensure there is adequate infrastructure and work environment
8.   Allocate responsibility and authority
9.   Assess, plan and establish appropriate internal and external communication (including the food chain) channels
10. Plan to establish a food safety culture

Attendees:

Senior Management Team		
Job Title	**Name**	**Role in Team**
Managing Director		Chairman
Operations Manager		Operations Reporting
Quality Manager		Food Safety Reporting
Planning Manager		Planning and Capacity Reporting
Distribution Manager		Distribution Reporting
Maintenance Manager		Services and Engineering Provision
Finance Manager		Financial Reporting
Human Resources Manager		Resource reporting

5

Senior Management FSMS Implementation Checklist

The Senior Management FSMS Implementation Meeting should follow the guidelines of the Senior Management Implementation Checklist:

Action (i)	Senior management formulate a checklist of Customer, Regulatory, Statutory and other relevant Food Safety requirements	
	Customer/Regulatory/Statutory/Other	Record Details
	XYZ Customer Requires this	
	SQF Code Edition 9	
	Food Regulations	
	FSMA Preventive Controls Rule for Human Food	
	CODEX Recommended International Code of Practice General Principles of Food Hygiene (2020) Chapter Two HAZARD ANALYSIS AND CRITICAL CONTROL POINT (HACCP) SYSTEM AND GUIDELINES FOR ITS APPLICATION.	
Action (ii)	Senior Management decides which Food Safety requirements the company should address and develop relevant policies.	
	Requirement	Policy Details

Senior Management can choose/adapt the templates supplied with the system to assist in documenting policies and objectives:

Food Safety Policy and Objectives
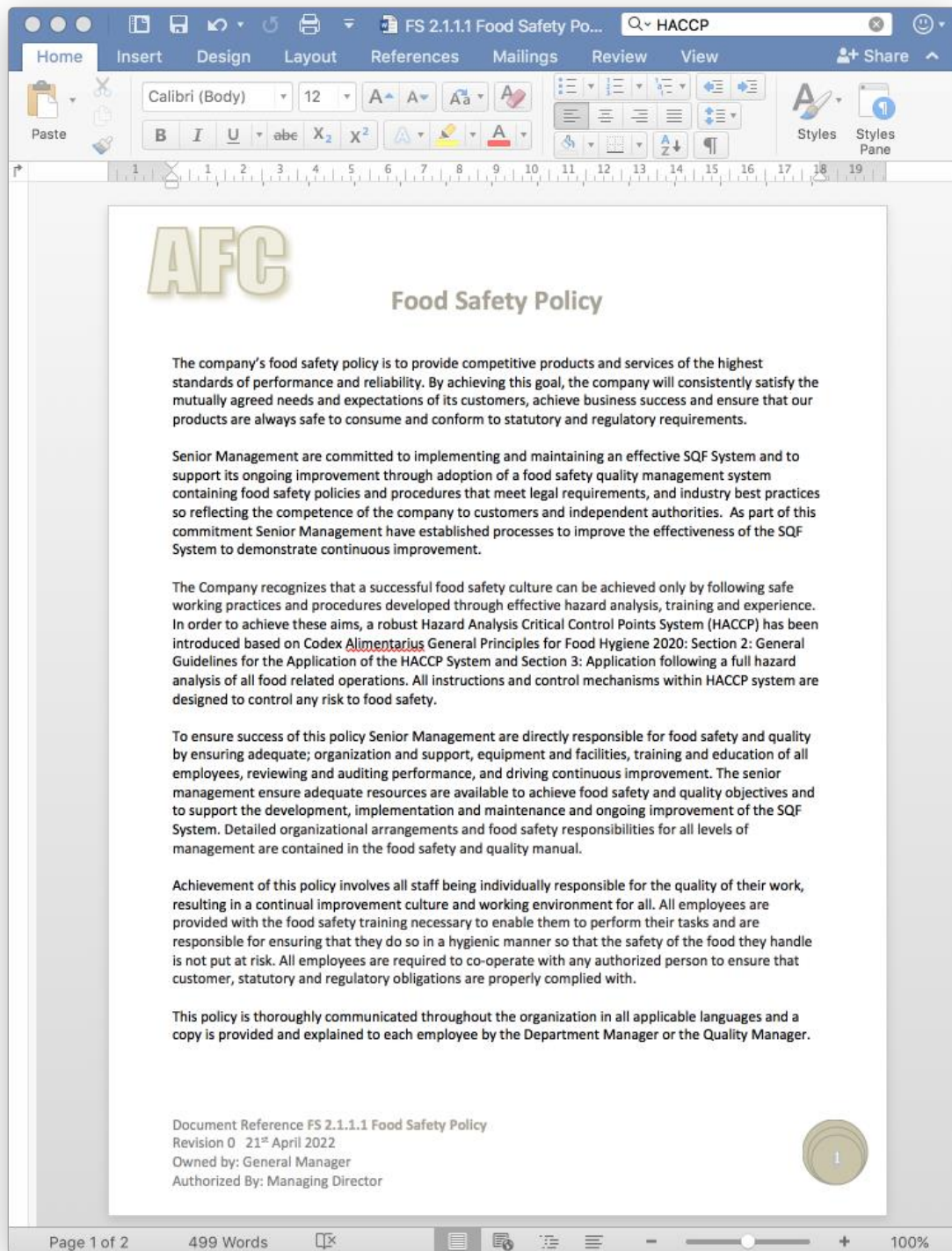
Key Personnel and Nominated Deputies

Job Title	Job Holder	Nominated Deputy
Emergency Response Coordinator		
Food Safety Team Leader		
General Manager		
Operations Manager		
Production Manager		
Warehouse Manager		
Maintenance Manager		
Factory Safety Manager		
Human Resource Manager		
Quality Manager		
Production Supervisor		
Packing Manager		
Quality Manager		
Planning Manager		
Goods Receipt Manager		
Design and Development Manager		
Planning Manager		
Customer Service Manager		
Laboratory Manager		
Distribution Manager		
Project Manager		

19

Senior Management Establish a Product Recall/Crisis Management Team

Crisis Management/Product Recall Team			
Crisis	**Name**	**Crisis Coordinator**	**Contact Details**
Fire or Site evacuation		Health and Safety Manager	
Utility Supply failure		Maintenance Manager	
IT systems failure		Operations Manager	
Water Supply Contamination		Quality Manager	
Breaches of security		Managing Director	
Distribution Failure		Distribution Manager	
Extortion or Sabotage		General Manager	
Product quality or safety		Quality Manager	

Senior Management Establish Food Safety Responsibility & Authority Levels

Example Key Responsibilities

Process	Responsible Persons	Activity
Purchases	Purchasing Manager	Purchase ingredients from approved and certified sources Ensure purchase orders comply with applicable specifications
	Quality Manager	Ensure adequate information on supply application form Ensure suppliers adhere to supply handling practices Perform suppliers audit or review supply status where necessary
Receiving and warehousing	QA/QC & Store Executives	Compare Purchase Order and Delivery note or check contracts as per Suppliers Specifications criteria (if applicable) Check receiving temperature, pest infestations, quality, packing conditions and truck hygiene. Observe unloading practices Handle incoming goods as per documented procedures Ensure Good Storage Practices and FIFO rotation principles
Preparation of Ingredients	QA/QC, Production Manager & Production Executive	Follow safe food preparation and handling practices Check environmental hygiene and safety Check equipment process performance and maintenance Check water quality and safety Check raw materials identification and traceability
Production	QC/QC, Production Manager, Supervisor & Operators	Maintain product recipes and characteristics Do not modify recipes prior to approval from top management Follow safe food handling practices Ensure Good Manufacturing Practices are adhered to Follow cleaning and sanitation standards and procedures Follow the handling standards of raw and processed foods
Holding and Filling of Processed Food	Production Supervisor & Operators	Follow safe food holding procedures Hold foods outside the range of danger zone Follow safe food filling procedures into primary packaging
Capping, coding and packing	Production Supervisor & Operators	Follow safe capping procedures Ensure food in primary packaging are hygienically located Ensure coding for traceability is performed to procedures Follow secondary packaging procedures to protect

23

Senior Management Establish Food Safety Responsibility & Authority Levels

Process	Responsible Persons	Activity

25

<u>Step Three: Food Safety Management System</u>

The SQF Food Safety Management System Package contains a comprehensive top level Food Safety Management procedures templates that form the foundations of your Food Safety Management System so you don't have to spend 1,000's of hours writing compliant procedures:

<u>Food Safety Management System Elements Procedures</u>

FS 2.1 Management Commitment
FS 2.1.1.1 Food Safety Policy
FS 2.1.1.1A Food Safety Objectives
FS 2.1.1.2 Food Safety Culture
FS 2.1.1.2A Food Safety Culture Planning Matrix
FS 2.1.1.3 Responsibility and Authority
FS 2.1.1.3A Appendix Organizational Chart
FS 2.1.1.3B Appendix Job Descriptions
FS 2.1.2 Management Review
FS 2.1.3 Complaint Management
FS 2.1.3 Note - How to reduce your Complaint levels
FS 2.1.3A Annual Complaints Analyzer
FS 2.1.3B Annual Complaints Analyzer Instruction
FS 2.2.1 Food Safety Management System
FS 2.2.2 Document Control
FS 2.2.3 Records
FS 2.3.1 Product Formulation and Realization
FS 2.3.1A Development Supplementary Documents
FS 2.3.2 Specifications
FS 2.3.2A Material Acceptance Record
FS 2.3.3 Contract Manufacturers
FS 2.3.4 Approved Supplier Program
FS 2.3.4A Supplier & Material Risk Assessment
FS 2.4.1 Food Legislation
FS 2.4.2 Good Manufacturing Practices
FS 2.4.3 Food Safety Plan
FS 2.4.3A Additional HACCP Tools
FS 2.4.4 Product Sampling, Inspection and Analysis
FS 2.4.4A Laboratory Quality Manual
FS 2.4.4B Product Sampling Supplementary Documents
FS 2.4.5 Non-conforming Materials and Product
FS 2.4.6 Product Rework
FS 2.4.7 Product Release

30

The documents are provided in Microsoft Word English (US) format and are easily edited to suit your organization.

Food Safety Management System Record Templates

A comprehensive range of easy to use food safety record templates:
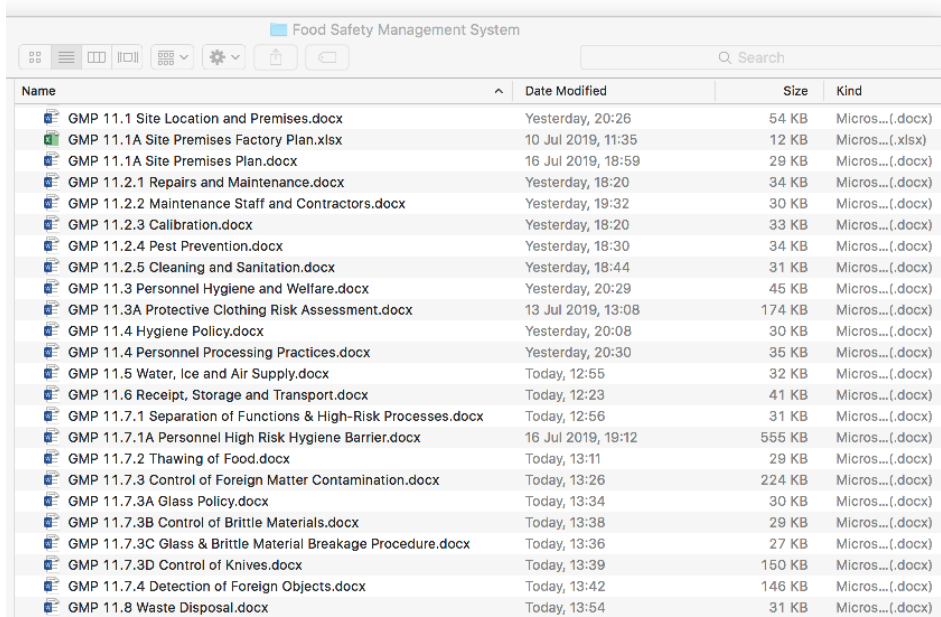
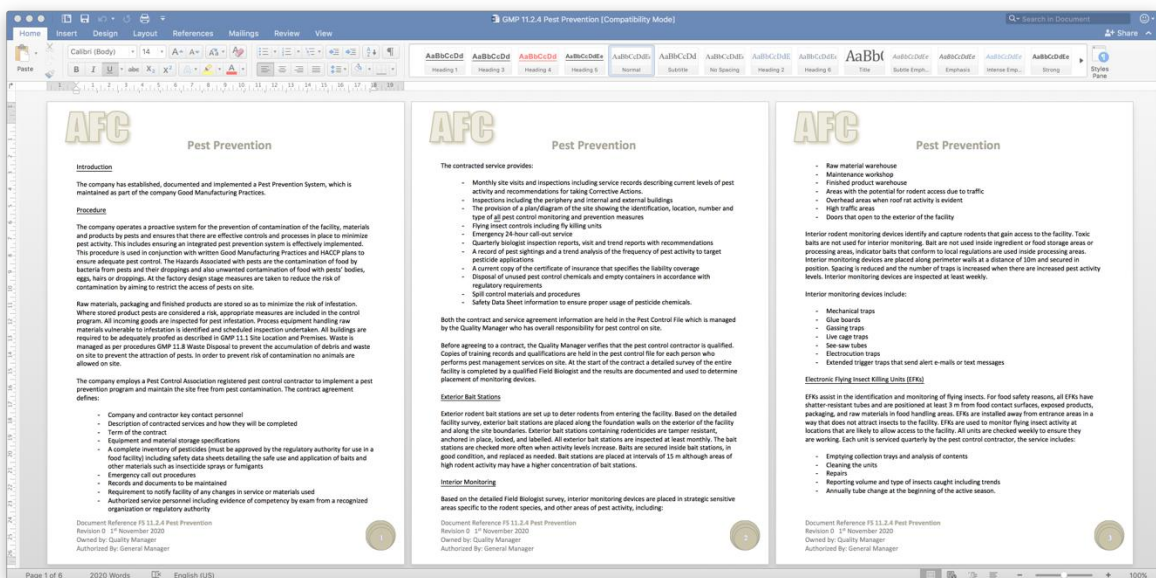| Name	Date Modified	Size	Kind
QMR 001 Management Review Record.docx	17:58	29 KB	Microsoft Wor...cument (.docx)
QMR 002 Training Record.docx	18:11	31 KB	Microsoft Wor...cument (.docx)
QMR 003 Product Realisation Record.docx	18:11	29 KB	Microsoft Wor...cument (.docx)
QMR 004 Design and Development.docx	18:10	28 KB	Microsoft Wor...cument (.docx)
QMR 005 Supplier Evaluation Form.docx	18:10	28 KB	Microsoft Wor...cument (.docx)
QMR 006 Process Validation Record.docx	18:10	29 KB	Microsoft Wor...cument (.docx)
QMR 007 Identification and Traceability Form.docx	18:09	29 KB	Microsoft Wor...cument (.docx)
QMR 008 Register of Customer Property.docx	18:09	27 KB	Microsoft Wor...cument (.docx)
QMR 009 Calibration Record.docx	18:09	29 KB	Microsoft Wor...cument (.docx)
QMR 010 Food Safety Quality System Audit Form.docx	18:09	28 KB	Microsoft Wor...cument (.docx)
QMR 011 Non-Conformance Record.docx	18:05	28 KB	Microsoft Wor...cument (.docx)
QMR 012 Corrective Action Request.docx	18:14	27 KB	Microsoft Wor...cument (.docx)
QMR 013 Preventative Action Request.docx	18:14	28 KB	Microsoft Wor...cument (.docx)
QMR 014 Supplier Self Assessment Form.docx	18:14	37 KB	Microsoft Wor...cument (.docx)
QMR 015 Equipment Commissioning Checklist.docx	18:14	32 KB	Microsoft Wor...cument (.docx)
QMR 016 Return to Work Form.docx	18:13	28 KB	Microsoft Wor...cument (.docx)
QMR 017 Hygiene Policy Staff Training Record.docx	18:13	28 KB	Microsoft Wor...cument (.docx)
QMR 018 Complaint Investigation Form.docx	18:13	29 KB	Microsoft Wor...cument (.docx)
QMR 019 Audit Checklist.docx	18:13	42 KB	Microsoft Wor...cument (.docx)
QMR 020 Knife Control Record.docx	18:12	28 KB	Microsoft Wor...cument (.docx)
QMR 021 Knife Breakage Report.docx	18:12	28 KB	Microsoft Wor...cument (.docx)
QMR 022 Goods In Inspection Record.docx	18:19	28 KB	Microsoft Wor...cument (.docx)
QMR 023 Equipment Cleaning Procedure and Record.docx	18:18	30 KB	Microsoft Wor...cument (.docx)
QMR 024 Glass Breakage Record.docx	18:18	27 KB	Microsoft Wor...cument (.docx)
QMR 025 Metal Detection Record.docx	18:18	29 KB	Microsoft Wor...cument (.docx)
QMR 026 First Aid Dressing Issue Record.docx	18:18	29 KB	Microsoft Wor...cument (.docx)
QMR 027 Cleaning Schedule.docx	18:17	30 KB	Microsoft Wor...cument (.docx)
QMR 028 Cleaning Record.docx	18:17	29 KB	Microsoft Wor...cument (.docx)
QMR 029 Engineering Hygiene Clearance Record.docx	18:17	30 KB	Microsoft Wor...cument (.docx)
QMR 030 Glass and Brittle Plastic Register.docx	18:17	33 KB	Microsoft Wor...cument (.docx)
QMR 031 GMP Audit Checklist.docx	18:17	41 KB	Microsoft Wor...cument (.docx)
QMR 032 Vehicle Hygiene Inspection Record.docx	18:16	28 KB	Microsoft Wor...cument (.docx)
QMR 033 Outgoing Vehicle Inspection Record.docx	18:16	28 KB	Microsoft Wor...cument (.docx)
QMR 034 Pre Employment Medical Questionnaire.docx	18:16	32 KB	Microsoft Wor...cument (.docx)
QMR 035 Visitor Questionnaire.docx	18:16	28 KB	Microsoft Wor...cument (.docx)
QMR 036 Product Recall Record.docx	18:22	28 KB	Microsoft Wor...cument (.docx)
QMR 037 Shelf Life Confirmation Record.docx	18:22	29 KB	Microsoft Wor...cument (.docx)
QMR 038 Accelerated Keeping Quality Log.docx	18:22	30 KB	Microsoft Wor...cument (.docx)
QMR 039 Goods In QA Clearance Label.docx	18:21	16 KB	Microsoft Wor...cument (.docx)
QMR 040 Maintenance Work Hygiene Clearance Form.docx	18:21	27 KB	Microsoft Wor...cument (.docx)
QMR 041 Changing Room Cleaning Record.docx	18:21	30 KB	Microsoft Wor...cument (.docx)
QMR 042 Cleaning Equipment Colour Coding Sample	10/07/2019	223 KB	Portable Document Format
QMR 043 Daily Cleaning Record for Toilets and Changing Rooms.docx	18:21	30 KB	Microsoft Wor...cument (.docx)
QMR 044 Drain Cleaning Procedure Filler Areas.docx	18:20	196 KB	Microsoft Wor...cument (.docx)
QMR 045 General Cleaning Procedure.docx	18:20	142 KB	Microsoft Wor...cument (.docx)
QMR 046 Product QA Clearance Label.docx	18:23	16 KB	Microsoft Wor...cument (.docx)
QMR 047 CIP Programs Log.xlsx	18:24	14 KB	Microsoft Exc...orkbook (.xlsx)
QMR 048 Sample Filler Cleaning Record.docx	18:24	27 KB	Microsoft Wor...cument (.docx)
QMR 049 Pipe Diameter Flow Rate Conversion Table.xlsx	18:24	19 KB	Microsoft Exc...orkbook (.xlsx)
QMR 050 QC Online Check Sheet.docx	18:26	32 KB	Microsoft Wor...cument (.docx)
QMR 051 Non Conformance Notification.docx	18:26	28 KB	Microsoft Wor...cument (.docx)
QMR 052 CIP Chemical Log.docx	18:25	28 KB	Microsoft Wor...cument (.docx)
QMR 053 Double Hold Label.docx	18:25	12 KB	Microsoft Wor...cument (.docx)
QMR 054 Supplier Register.xlsx	18:26	13 KB	Microsoft Exc...orkbook (.xlsx)
QMR 055 Chemical Register.docx	18:30	28 KB	Microsoft Wor...cument (.docx)
QMR 056 Non Approved Supplier Sample Plan.docx	18:30	30 KB	Microsoft Wor...cument (.docx)
QMR 057 Warehouse Cleaning Record.docx	18:30	28 KB	Microsoft Wor...cument (.docx)
QMR 058 Product Recall Trace.docx	18:30	29 KB	Microsoft Wor...cument (.docx)
QMR 059 Product Recall Test Record.docx	18:30	32 KB	Microsoft Wor...cument (.docx)
QMR 060 Document Master List.docx	18:29	27 KB	Microsoft Wor...cument (.docx)
QMR 061 Process Change Approval Record.docx	18:28	30 KB	Microsoft Wor...cument (.docx)
QMR 062 Minor Process Change Approval Record.docx	18:28	29 KB	Microsoft Wor...cument (.docx)

33

Step Four: Good Manufacturing Practices Implementation

The SQF Food Safety Management System Package contains a comprehensive Good Manufacturing Practice procedural templates that form the foundations of your Food Safety Management System so you don't have to spend 1,000's of hours writing compliant procedures:

The documents are provided in Microsoft Word English (US) format and are easily edited to suit your organization.

34

Step Five: Project SQF Implementation

The package contains project tools to assist in achieving SQF certification. In this part of the package you will need to:

✓ Make sure that the Steering Group are established and briefed
✓ Make sure that the Steering Group take control of the Project Plan established by Senior Management

Food Safety Management System Steering Group			
FSMS Team Member	**Name**	**Position**	**Qualification**
FSMS Team Leader			
FSMS Assistant Leader			
FSMS Team Members			

Project Plan

The Steering Group use the Excel Project Plan developed by Senior Management as a step by step guide to implementing the Food Safety Management System.
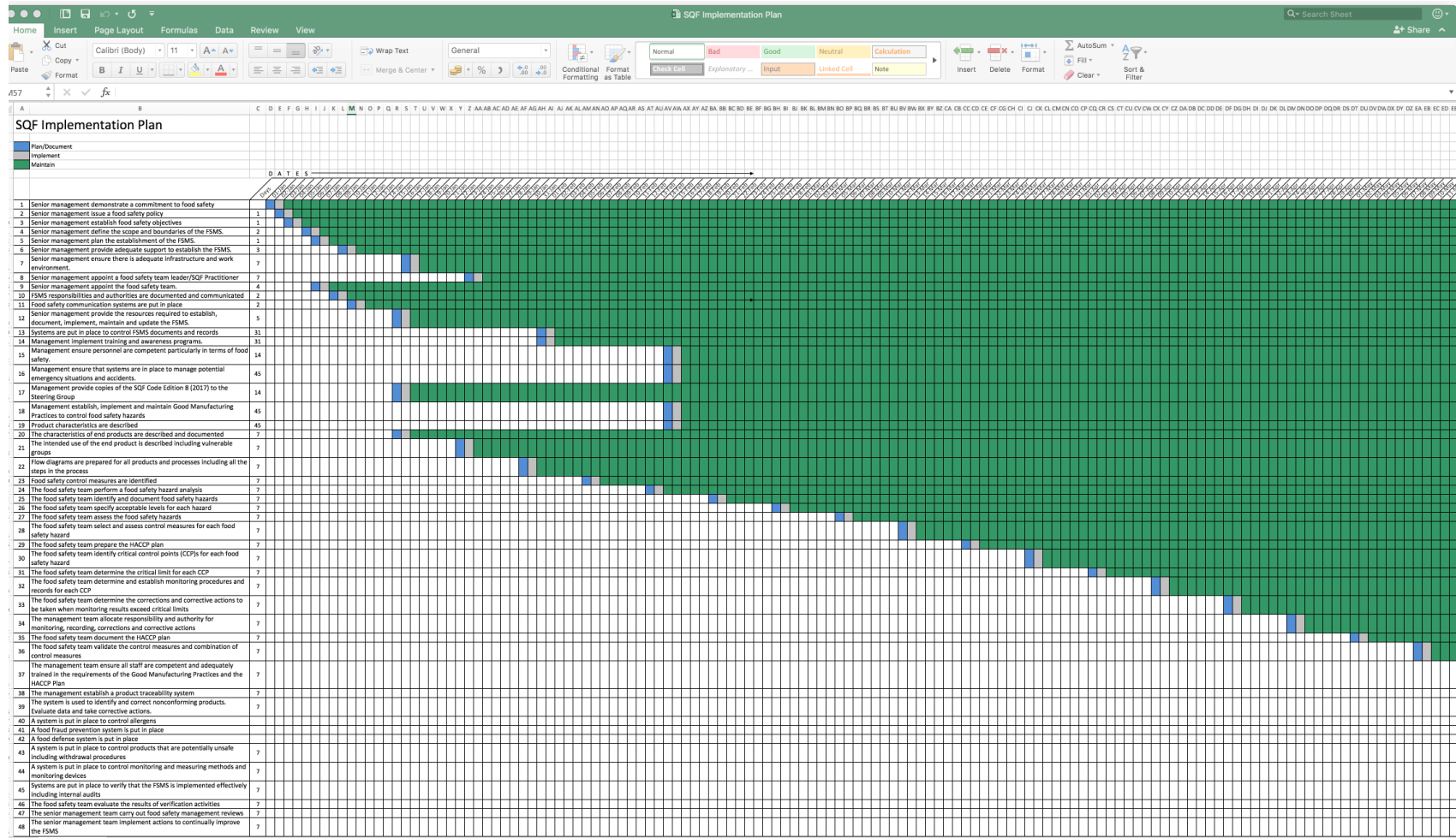
Project Planning Tasks		Responsibility	Comments	Due Date for Completion	Date Completed
1)	Senior management demonstrate a commitment to food safety	Senior Management Team	Completed in Step 2		
2)	Senior management issue a food safety policy and objectives	Senior Management Team	Completed in Step 2		
3)	Senior management plan to establish a food safety culture	Senior Management Team	Completed in Step 2		
4)	Senior management define the scope and boundaries of the FSMS.	Senior Management Team	Completed in Step 2		
5)	Senior management plan the establishment of the FSMS.	Senior Management Team	Completed in Step 2		
6)	Senior management provide adequate support to establish the FSMS.	Senior Management Team	Completed in Step 2		
7)	Senior management ensure there is adequate infrastructure and work environment.	Senior Management Team	Completed in Step 2		
8)	Senior management appoint a food safety team leader/SQF Practitioner	Senior Management Team	Completed in Step 2		
9)	Senior management appoint the food safety team.	Senior Management Team	Completed in Step 2		
10)	FSMS responsibilities and authorities are documented and communicated	Senior Management Team	Completed in Step 2		
11)	Food safety communication systems are put in place	Senior Management Team	Completed in Step 2		

37

Project Task 18 Management establish, implement and maintain Good Manufacturing Practices to assist in controlling food safety hazards: Use documents from Step Four: Good Manufacturing Practices

GMP 11.1.1 Site Location and Premises including:
Building Materials
Lighting and Light Fittings
Inspection/Quality Control Area
Dust, Insect, and Pest Proofing
Ventilation
Equipment and Utensils
Grounds and Roadways
GMP 11.1A Site Premises Plan
GMP 11.2.1 Repairs and Maintenance
GMP 11.2.2 Maintenance Staff and Contractors
GMP 11.2.3 Calibration
GMP 11.2.4 Pest Prevention
GMP 11.2.5 Cleaning and Sanitation
GMP 11.3 Personnel Hygiene and Welfare including:
Hand Washing, Clothing and Personal Effects, Visitors, Staff Amenities
GMP 11.3A Protective Clothing Risk Assessment
GMP 11.4 Hygiene Policy
GMP 11.4 Personnel Processing Practices
GMP 11.5 Water, Ice and Air Supply including:
Air and Other Gasses
GMP 11.6 Receipt, Storage and Transport including:
Receipt, Storage and Handling of Goods
Cold Storage, Freezing and Chilling of Foods
Storage of Dry Ingredients, Packaging, and Shelf Stable Packaged Goods
Storage of Hazardous Chemicals and Toxic Substances
Loading, Transport and Unloading Practices
GMP 11.7.1 Separation of Functions & High-Risk Processes
GMP 11.7.1A Personnel High Risk Hygiene Barrier
GMP 11.7.2 Thawing of Food
GMP 11.7.3 Control of Foreign Matter Contamination
GMP 11.7.4 Detection of Foreign Objects
GMP 11.8 Waste Disposal

The Steering Group now need to allocate responsibility to implement and maintain these Good Manufacturing Practices.

43

Project Tasks 19 – 36

Project Tasks 19 – 36 are to be completed by the Food Safety Team. Guidelines for these tasks are included in Step 6 HACCP Implementation Section.

19)	Product characteristics are described
20)	The characteristics of end products are described and documented
21)	The intended use of the end product is described including vulnerable groups
22)	Flow diagrams are prepared for all products and processes including all the steps in the process
23)	Food safety control measures are identified
24)	The food safety team perform a food safety hazard analysis
25)	The food safety team identify and document food safety hazards
26)	The food safety team specify acceptable levels for each hazard
27)	The food safety team assess the food safety hazards
28)	The food safety team select and assess control measures for each food safety hazard
29)	The food safety team prepare the HACCP plan
30)	The food safety team identify critical control points (CCP)s for each food safety hazard
31)	The food safety team determine and validate the critical limit for each CCP
32)	The food safety team determine and establish monitoring procedures and records for each CCP
33)	The food safety team determine the corrections and corrective actions to be taken when monitoring results exceed critical limits
34)	The management team allocate responsibility and authority for monitoring, recording, corrections and corrective actions
35)	The food safety team document the HACCP plan
36)	The food safety team validate the control measures and combination of control measures (and the HACCP Plan)

44

Step Six: HACCP Implementation Guide

Included in the package are FS 2.4.3 Food Safety Plan and supplementary HACCP documents in the Additional HACCP Tools Folder including the SQF Hazard Assessment & Critical Control Point Tool:

The Food Safety (HACCP Team) should follow procedure FS 2.4.3 Food Safety Plan in conjunction with the guidelines in this workbook.

The main tools here are the SQF HACCP Calculator and Instructions:

HACCP Calculator
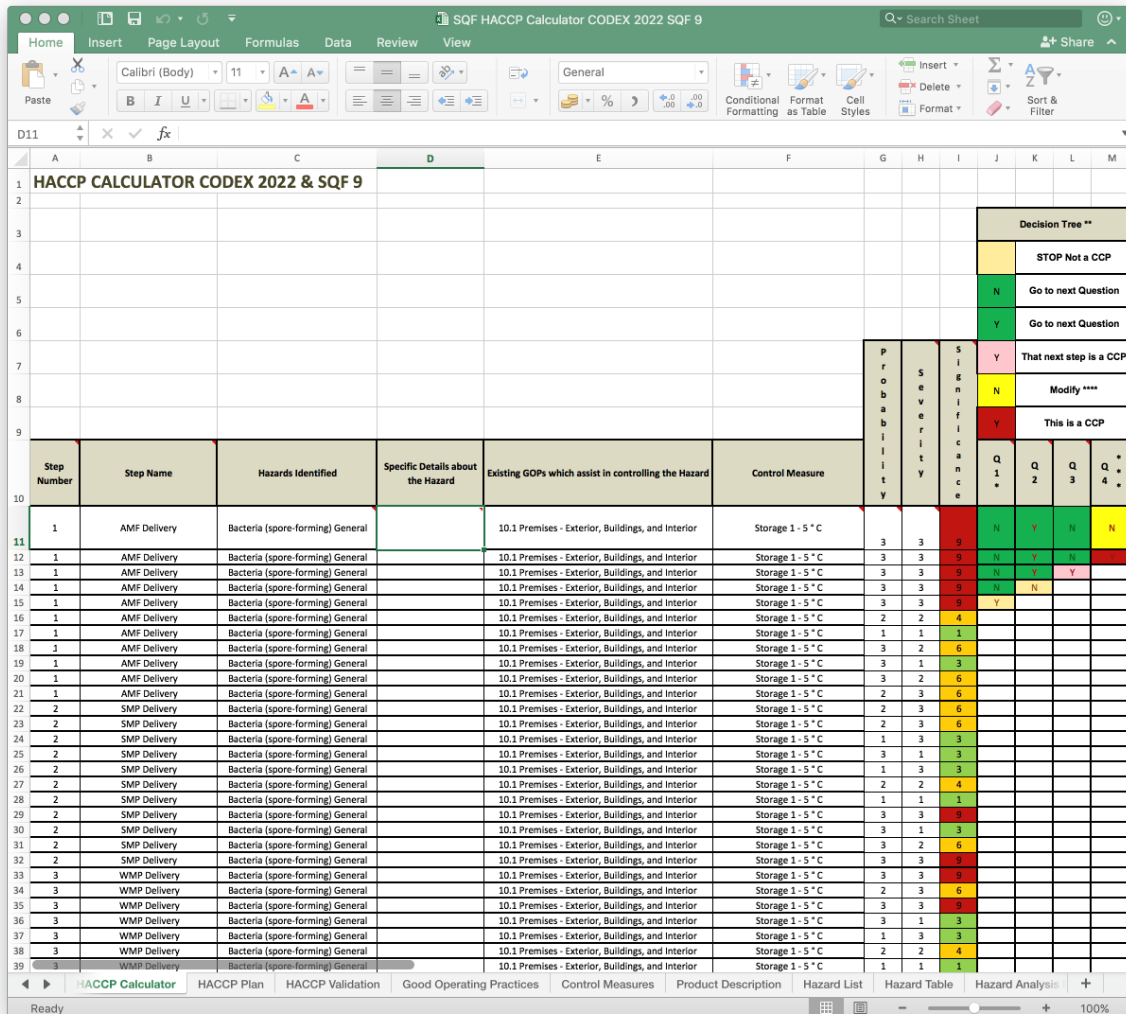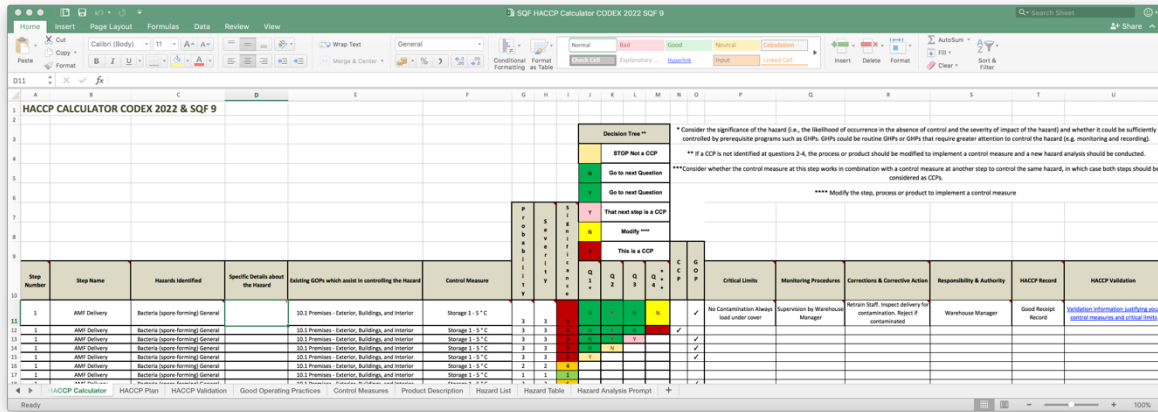
HACCP Calculator Instructions
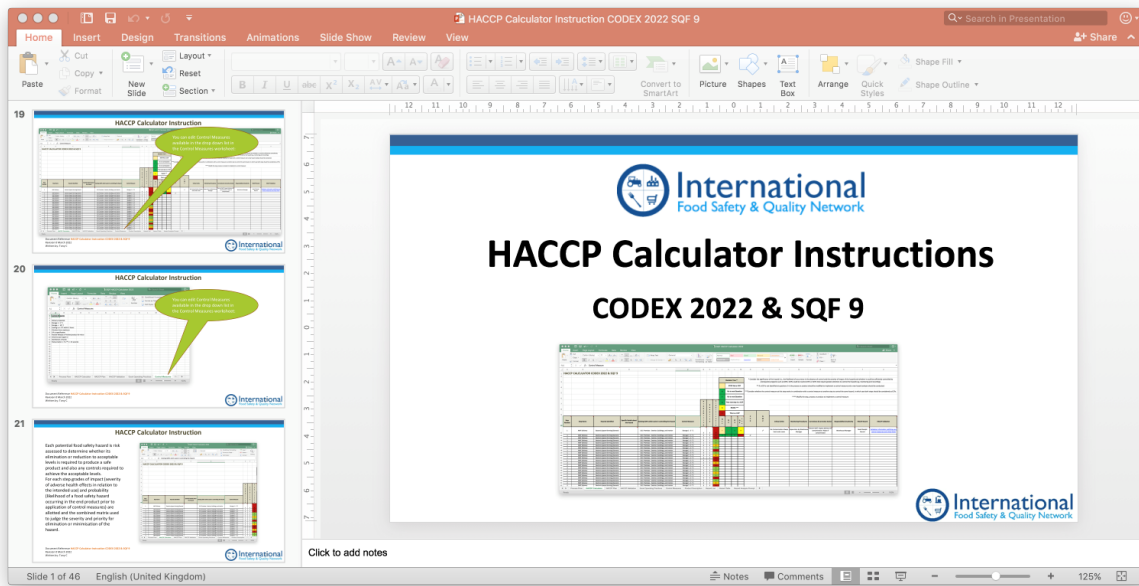
This folder also contains a HACCP Training PowerPoint Presentation which is supplied to train your food safety team in the preliminary steps to a Hazard analysis, and the principles of HACCP as per the requirements of CODEX Recommended International Code of Practice General Principles of Food Hygiene (2020) Chapter Two HAZARD ANALYSIS AND CRITICAL CONTROL POINT (HACCP) SYSTEM AND GUIDELINES FOR ITS APPLICATION.

47
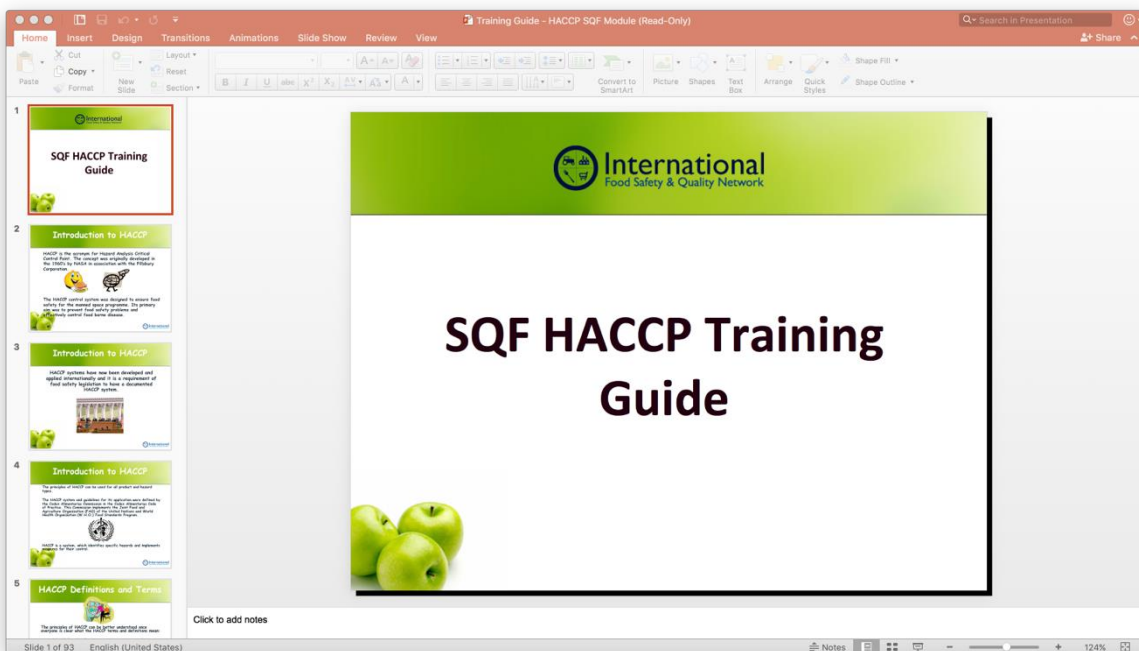
There is a <u>Sample HACCP Documents Sub-Folder</u>
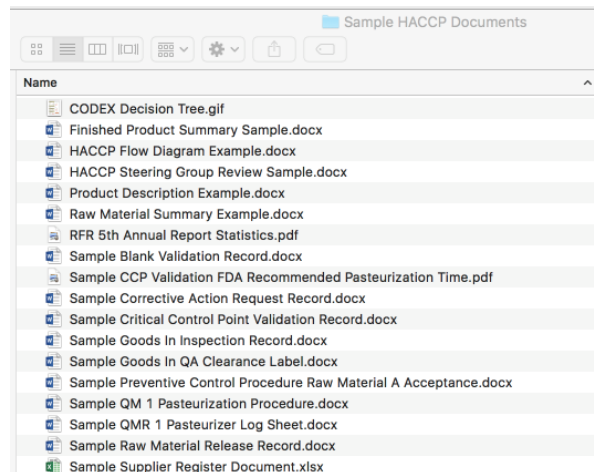
These are supplementary documents and examples that you might find useful when implementing your Food Safety Plans

Follow the step by step guide to implementing your HACCP using the documents supplied and the SQF HACCP Calculator.

<u>Tasks 19 - 21</u>

All raw materials, ingredients, product-contact materials and the characteristics of end products should be described in documents to the extent needed to conduct the hazard analysis.

Specifications for all Raw Materials, including Ingredients and Product Contact Materials should be obtained from all suppliers and held in a purchased raw materials file. Specifications should include sufficient detail for the identification and assessment of food safety hazards. For each item the specification should include includes:
- Biological, chemical and physical characteristics
- Composition of formulated ingredients including additives and processing aids
- Origin
- Method of production
- Delivery method
- Storage conditions/requirements
- Details of packaging
- Preparation and/or handling before use or processing
- Food Safety Acceptance criteria
- Intended use

48

Intended Use and Users

The food safety team need to identify all possible users and consumers for each product and process category. Vulnerable consumer groups in particular should be considered for each food safety hazard including infants, the elderly and allergy sufferers.

The following types of foods can cause reactions in susceptible persons and may be considered as part of the HACCP study: Milk, Eggs, Fish, Shellfish, Tree nuts, Peanuts, Wheat, Soybean and Sesame seeds.

Allergen risks should be assessed by the food safety team using the Allergen Management Tool as per the Allergen Control System. The Allergen Control Plan generated may be integrated into Food Safety Plans at a later stage. Requirements for further processing should be considered including the need for label instructions/warnings and also any potential alternative use of the product.

HACCP Terms of Reference

The Food Safety Team should define the HACCP terms of reference. This HACCP study covers all types of hazards (Allergens, Physical – foreign bodies, Chemical and Biological) **and may include:**

(1) Known or reasonably foreseeable hazards that include:
(i) Biological hazards, including microbiological hazards such as parasites, environmental pathogens, and other pathogens;
(ii) Chemical hazards, including radiological hazards, substances such as pesticide and drug residues, natural toxins, decomposition, unapproved food or color additives, and food allergens; and
(iii) Physical hazards (such as stones, glass, and metal fragments); and
(2) Known or reasonably foreseeable hazards that may be present in the food for any of the following reasons:
(i) The hazard occurs naturally;
(ii) The hazard may be unintentionally introduced; or
(iii) The hazard may be intentionally introduced for purposes of economic gain.

The HACCP study is conducted using all relevant information including legislation, known hazards, industry codes of practice, customer requirements, historic and scientific information. Sources of information are documented and maintained.

51

Flow Diagram Example

1. Ingredient A Delivery	2. Ingredient B Delivery
3. Ingredient C Delivery	4. Ingredient D Delivery

6. Filtration

5. Packaging ← → Removed

Step 7 Batch Mixing

Batch mix < 10 C < 30 mins

Step 8 Standardisation

Standardisation < 30 mins

Step 9 In-Line Filter

1mm

53
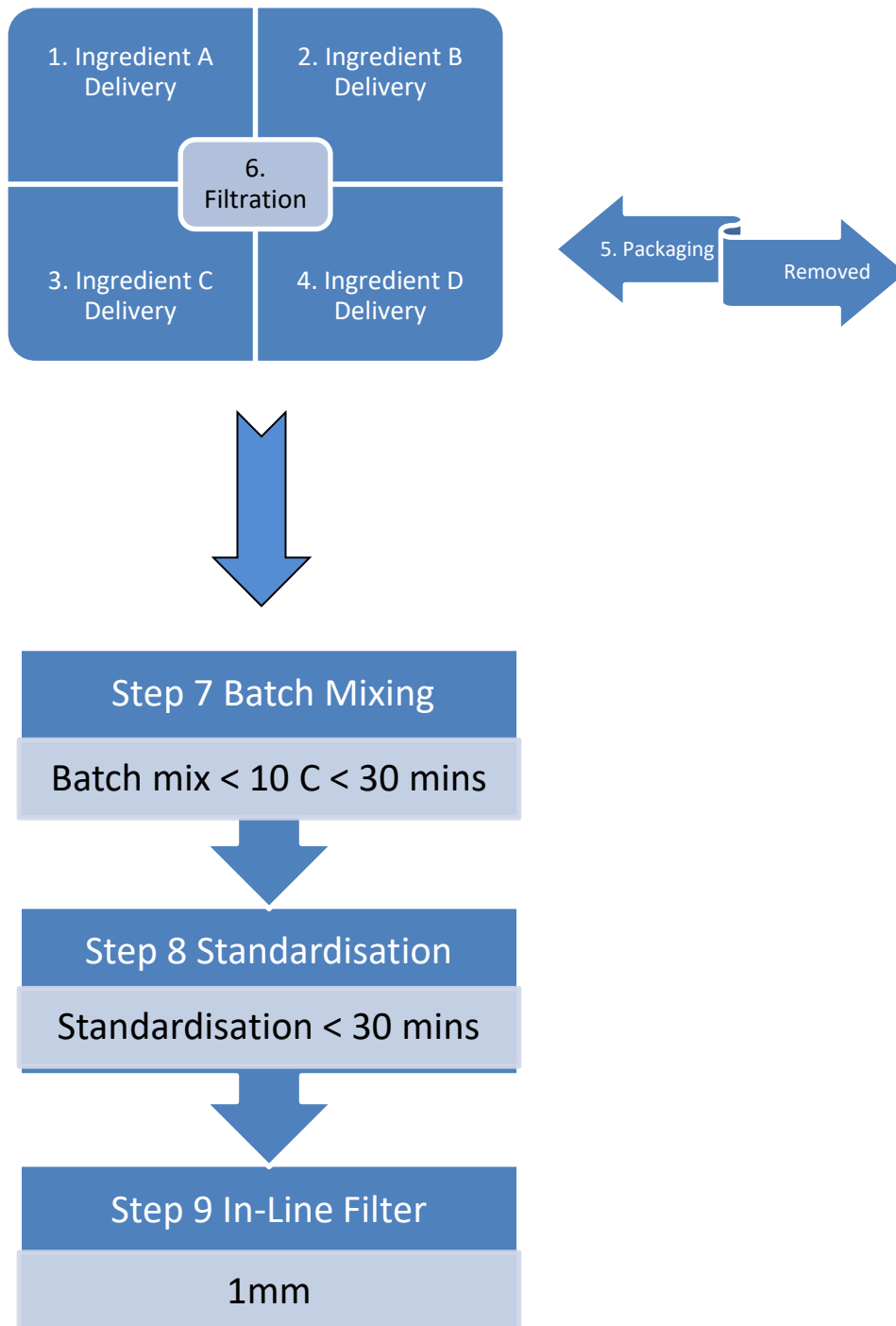
The steps in the process should be logged:

Step Number	Step Name
1	Delivery of Ingredient A
2	Delivery of Ingredient B
3	Delivery of Ingredient C
4	Delivery of Ingredient D
5	Packaging Removed
6	Filtration
7	Batch Mixing
8	Standardization
9	Filtration

The flow diagram should be confirmed physically on site by the Food Safety team who should conduct a walk through verifying all steps in the process flow chart.

54

Task 26 The food safety team specify acceptable levels for each hazard

For each Food Safety Hazard Identified, the acceptable level of the hazard in the end product is determined, justified and recorded taking into account regulatory requirements, customer food safety requirements, historic information, scientific literature, professional experience and intended use by the customer.

This hazard list is referred to as a preliminary hazard list and covers all hazards that could potentially occur in the product.

Use the templates provided in the HACCP Manual to assist you.

Task 27 The food safety team assess the food safety hazards

Each potential food safety hazard should now be risk assessed by the Food Safety Team to determine whether its elimination or reduction to acceptable levels is required to produce a safe product and also any controls required to achieve the acceptable levels.

For each step grades of impact (severity of adverse health effects) and probability (likelihood of a food safety hazard occurring) need to be allotted and the combined matrix used to judge the severity and priority for elimination or minimization of the hazard.

The Food Safety Team should identify the hazards that need to be prevented, eliminated or reduced to acceptable levels.

The Food Safety Team need to consider the probability of the hazard occurring, the severity of the hazard on the consumer, the vulnerability of the targeted consumer, the survival and multiplication of any biological hazards and any likely toxin production, the presence of chemicals or foreign bodies, contamination at any stage in the process and possible deliberate contamination or adulteration. This process is assisted using the worksheet HACCP Calculator. Taking these factors into account a rating is given for probability and severity:

First, the Food Safety Team assess the likelihood of the hazard occurring:

- 1 for Highly Unlikely
- 2 for Possible
- 3 for Likely

Then the Food Safety Team assess the severity of the hazard:

- 1 for Not Severe
- 2 for Could possibly cause illness
- 3 for Severe (Could be fatal)

61

The Food Safety team should factor in the vulnerability of the targeted consumer, the survival and multiplication of any biological hazards and any likely toxin production, the presence of chemicals or foreign bodies, contamination at any stage in the process and possible deliberate contamination or adulteration to the severity score to determine all the Significant Food Safety Hazards which score a 9 as highlighted in red.

All of the food safety hazards that score a 9 are regarded as significant and form the Significant Food Safety Hazard List.

Task 28 The food safety team select and assess control measures for each food safety hazard

Identification and Assessment of Control Measures

Each hazard on the Significant Food Safety Hazard list must be controlled by a control measure (or combination of control measures) that prevent, eliminate or reduce the hazard to the defined acceptable levels. The Food Safety Team should review the effectiveness of the control measures on the Significant Food Safety Hazards and determines whether they should be managed through the HACCP Plan.

This process involves assessing the effect on the Significant Food Safety Hazard in combination with the degree of control measure applied, feasibility of timely monitoring, position in flow relative to other control measures and severity of the consequences if the control measure fails.

62

This is carried out using the HACCP decision tree. Hazards identified at critical control points by the decision tree are controlled in the HACCP plan.
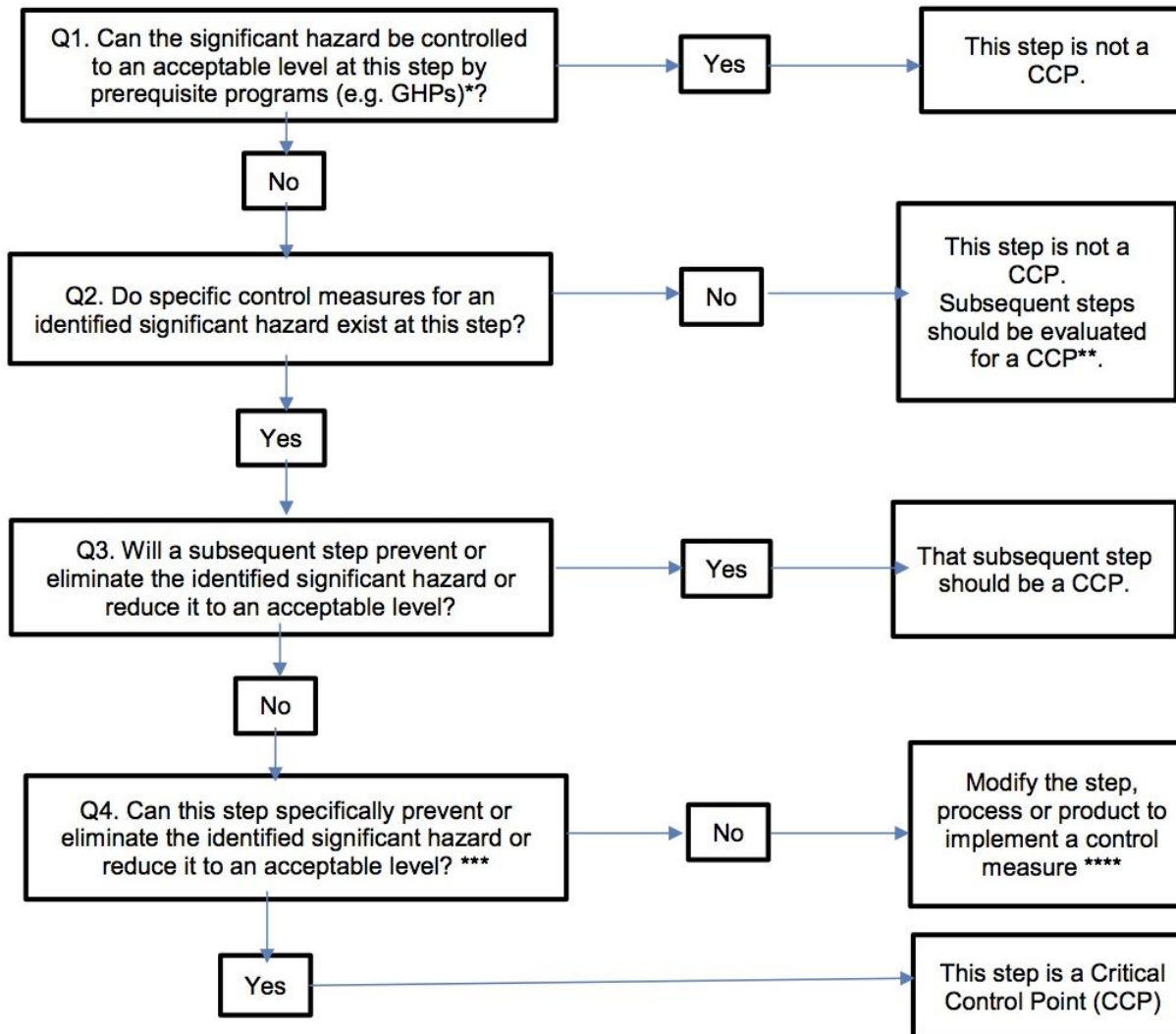
Task 35 The food safety team document the HACCP plan

The Food Safety Team should complete the relevant columns in the HACCP Plan Sheet:

Critical Limits	Monitoring Procedures	Corrective Action	Responsibility	HACCP Record
Minimum / Maximum acceptable levels to ensure condition is in control	- measurements to be taken (or observations) method of measurement - devices used (including applicable calibration procedures) - frequency of monitoring - responsibility and authority for monitoring and evaluation of the monitoring results	Action to be taken when outside of critical limits to regain control and ensure unsafe product is controlled	Who is taking the action	Where is it recorded

67

The Food Safety Team should use the following Validation record as a template:

Control Measure Validation

Product Category			
Step Number			
Hazard			
Control Measure			
Validation Methods	**Applicable**		**Comments**
	Yes	**No**	
Third Party Scientific Validation			
Historical Knowledge			
Simulated Production Conditions			
Collection of Data in normal production			
Admissible in industrial practices			
Statistical Programs			
Mathematical Modelling			
Conclusion			
Internal Validation Required?			
If so by which method?			
CCP Confirmed			
Authorized by(Name):			
Signature:			

69

At this stage, you will now be able to complete Tasks 38 – 44 using the document templates provided:

Task 38: The management establish a product traceability system - FS 2.6.2 Product Trace

Task 39: The system is used to identify and correct nonconforming products. Evaluate data and take corrective actions. - FS 2.4.5 Control of Non-Conforming Product or Equipment & FS 2.5.3 Corrective Action and Preventative Action

Task 40:   A system is put in place to control allergens - FS 2.8 Allergen Management

Task 41:   A food fraud prevention system is put in place - FS 2.7.2 Food Fraud

Task 42:   A food defense system is put in place - FS 2.7.1 Food Defense Plan

Task 43: A system is put in place to control products that are potentially unsafe including withdrawal procedures - FS 2.6.3 Product Withdrawal and Recall

Task 44: A system is put in place to control monitoring and measuring methods and monitoring devices - GMP 11.2.3 Calibration

72
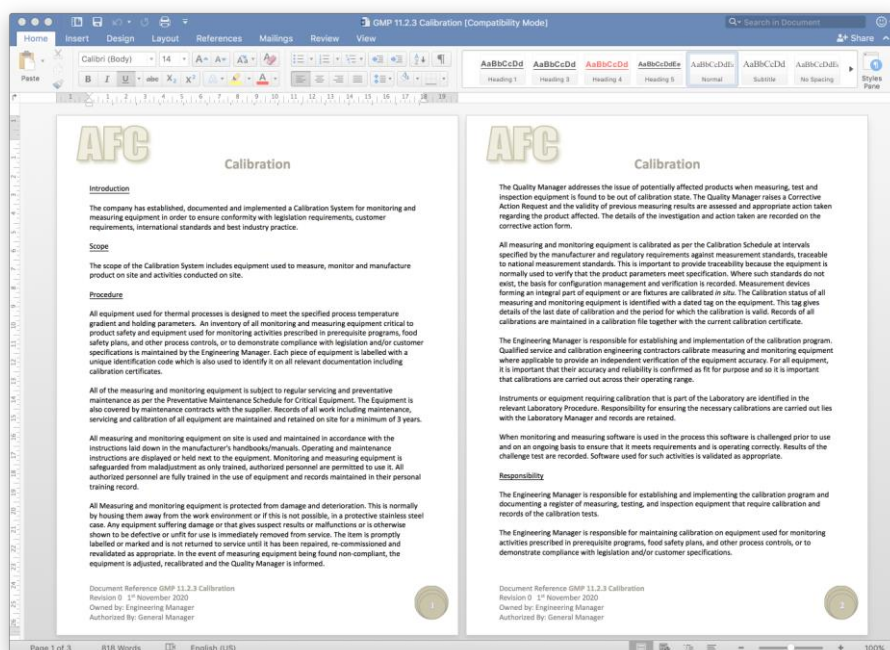
Step Seven: Training

A significant part of the implementation process is training. Job Descriptions should be available for all staff and they should be briefed and aware of their food safety responsibilities.

A training matrix and plans should be drawn up for all staff and the relevant training given based on responsibility and authority.

We have provided a Staff Training Matrix Template in Microsoft Excel Format.

For each employee and individual training record should be completed. FSR 002 Training Record is provided in the documentation pack as a template:

73

QMR 002 Training Record

Basic Site Training should be given to all staff and also training in:

- ✓ Implementing HACCP for staff involved in developing and maintaining food safety plans;
- ✓ Monitoring and corrective action procedures for all staff engaged in monitoring critical control points (CCPs);
  Personal hygiene for all staff involved in the handling of food products and food contact surfaces;
  Good Manufacturing Practices and work instructions for all staff engaged in food handling, food
- ✓ processing, and equipment;
- ✓ Sampling and test methods for all staff involved in sampling and testing of raw materials, packaging, work-in-progress, and finished products;
- ✓ Environmental monitoring for relevant staff;
- ✓ Allergen management, food defense, and food fraud for all relevant staff; and
- ✓ Tasks identified as critical to meeting the effective implementation and maintenance of the SQF code.

74

The Food Safety Team should receive extra training:

- ✓ Internal Audit Training
- ✓ HACCP Training – Previously mentioned

Remember all food handlers should receive Basic Food Hygiene Training

Internal Auditing Training & Checklists

Internal Auditor Training - An interactive and illustrated Internal Audit training presentation to train your Internal Audit procedure.
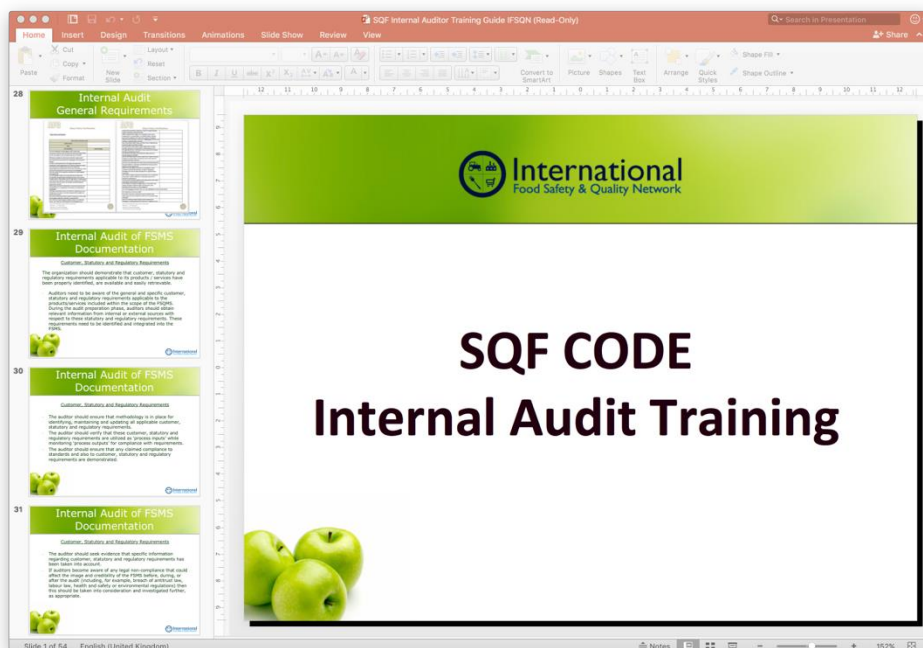
There is also a GOP audit training presentation provided.

75

Stage Eight: Final Steps to SQF Certification

There a few final steps to achieving SQF Certification:

- ✓ <u>Verify that the FSMS is implemented effectively including internal audits</u>
- ✓ <u>Evaluate the results of verification activities</u>
- ✓ Carry out Management Reviews
- ✓ Carry out an assessment of your system to make sure that it meets the requirements of the SQF Code and have the appropriate Good Manufacturing using the <u>SQF System Self-Assessment Checklists for Suppliers</u>
- ✓ Ensure any areas requiring corrective action are addressed
- ✓ Choose your Certification Body
- ✓ Agree a Contract with a Certification Body
- ✓ Pre-audit Document Review
- ✓ On-Site Audit
- ✓ Audit Review
- ✓ Certification Body Review
- ✓ Celebrate!
- ✓ Communicate your success!

76

Verification Record Example

Task 46 The food safety team evaluate the results of verification activities

The Food Safety Team should define the methods, frequencies and responsibilities for verification activities. Verification activities should be put in place by the Food Safety Team to confirm the effective operation of the Food Safety Management System.

The aim of the evaluation of the results of verification activities by the Food Safety Team is to confirm that:

- ✓ HACCP plan is implemented and effective
- ✓ GMPP(s) are implemented and effective
- ✓ Infrastructure and Maintenance standards are satisfactory
- ✓ Hazards are below identified acceptable levels
- ✓ All other procedures required for the effective operation of the Food Safety Management System are implemented and effective.

78

Senior Management Review Meeting Notification

Date

Time

Venue

Agenda

Review of the Food Safety Policy
Review of the Food Safety Objectives
Review of Management Changes
Minutes and Follow-up actions from previous management review meeting
Review of changes to food safety management system documentation including policies, procedures, specifications, food safety plan(s)
Hazard and risk management system review
Food Safety Culture performance review
Results and Outstanding Non-conformances from internal and external audits
Review and trend analysis of Customer and Supplier complaints
Analysis of the results of validation and verification activities
Key Performance Indicators Review
Emergencies and Accidents
Process and product conformity
Corrective and preventive action status
Food Safety incidents including allergen control and labelling non-conformances, recalls, withdrawals, safety or legal issues
Review of changes to legislation and food safety related scientific information
Review of Resources and effectiveness of Training
Recommended Improvements
Customer feedback and Sales levels are reviewed to give an indication of trends
A.O.B

Attendees:

Senior Management Team		
Job Title	**Name**	**Role in Team**
Chief Executive		**Chairman**
General Manager		**Site Performance Reporting**
Operations Manager		**Operations Reporting**
Quality Manager		**Food Safety Reporting SQF Practitioner**
Planning Manager		**Planning and Capacity Reporting**
Distribution Manager		**Distribution Reporting**
Maintenance Manager		**Services and Engineering Provision**
Finance Manager		**Financial Reporting**
Human Resources Manager		**Resource reporting**
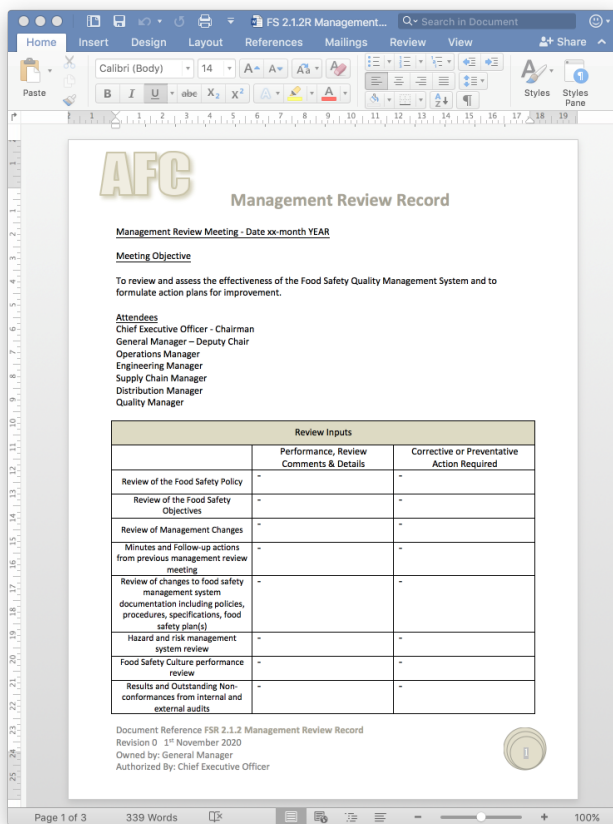
Task 48: The senior management team implement actions to continually improve the FSMS

Senior Management should implement actions to improve the Food Safety Management System. This will normally be as outputs from the Management Review: