



# GLOBAL FOOD SAFETY STANDARD INTERNATIONAL EVENT CATERING DIVISION

Version 1 - December 2007  
Version 8 - June 2019

## Food Safety Policy

From company and product presentations to meetings between global corporations, from international multi-venue tournaments to the Formula 1 Grand Prix circuits, the DO & CO event teams are experienced in dealing with international clients. They devise a tailor-made design for each event to fit the federation/corporate philosophy and guest profile. They then implement that design with a sound sense of essentials and a great focus on the importance of detail.

The very best quality in all products, service and interior design is the key characteristic of the DO & CO brand. DO & CO also sets the highest quality standards in all production and food handling areas. We consider it our absolute duty and a top priority to comply consistently with the strictest hygiene regulations.

Foods prepared in DO & CO Event Catering productions must be safe. This is a legal requirement as well as of course, the most basic expectation of our customers. Unsafe food production would not only be a risk for our guests and customers but also harmful to our company.

The DO & CO Food Safety Standard is an effective food safety tool applicable to all DO & CO Event Catering locations. Safe food preparation and service in DO & CO Event Catering locations is judged by how successfully we comply with the rules and regulations explained in this policy.

The DO & CO Food Safety Standard is based on:

- The principles of the Hazard Analysis Critical Control Points (HACCP) approach to food safety and Good Hygiene Practice as set out in Regulation (EC) No 853/2004 on the hygiene of foodstuffs.
- Legal key requirements such as the European Food Act (Regulation (EG) No 178/2002) and FDA Guideline Documents.
- Any local or national requirements wherever we are operating, as part of the HACCP study on the specific event.

The DO & CO Training Programmes include Food Safety and Hygiene and ensure that all DO & CO staff receives all information relevant to health, hygiene and food safety.

With the implementation of these internal regulations, DO & CO provides customers with safe food of the best quality and with the highest compliance to national and international law.

Attila Dogudan

(Chairman of the Management Board of the DO & CO Group)

## Table of Contents

<b>1. Introduction Food Hygiene and Food Safety</b> .....	<b>5</b>
<b>2. Scope</b> .....	<b>9</b>
<b>3. Flow Chart</b> .....	<b>10</b>
<b>4. Risk Assessment</b> .....	<b>11</b>
<b>5. Critical Control Points</b> .....	<b>12</b>
<b>CCP 1 - Food receipt</b> .....	<b>12</b>
<b>CCP 2 - Food storage temperature</b> .....	<b>13</b>
<b>CCP 3 - Food cooking</b> .....	<b>14</b>
<b>CCP 4 - Food chilling</b> .....	<b>15</b>
<b>CCP 5 - Food transport</b> .....	<b>16</b>
<b>CCP 6 - Food handling and service</b> .....	<b>17</b>
<b>6. Standard Operating Procedures (SOPs)</b> .....	<b>18</b>
<b>6.1. Food supplier approval (SOP 1)</b> .....	<b>19</b>
<b>6.2. Facility requirements (SOP 2)</b> .....	<b>21</b>
<b>6.3. Water supply (SOP 3)</b> .....	<b>29</b>
<b>6.4. Pest control (SOP 4)</b> .....	<b>30</b>
<b>6.5. General requirements for staff (SOP 5)</b> .....	<b>32</b>
<b>6.6. Personal hygiene requirements (SOP 6)</b> .....	<b>33</b>
<b>6.7. Food safety training (SOP 7)</b> .....	<b>35</b>
<b>6.8. Receiving control (SOP 8)</b> .....	<b>36</b>
<b>6.9. Food storage (SOP 9)</b> .....	<b>38</b>
<b>6.10. Food thawing (SOP 10)</b> .....	<b>40</b>
<b>6.11. Washing and disinfection of raw produce (SOP 11)</b> .....	<b>41</b>
<b>6.12. Monitoring of food, hands and surfaces (SOP 12)</b> .....	<b>42</b>
<b>6.13. Labelling and traceability (SOP 13)</b> .....	<b>44</b>
<b>6.14. Control of hazardous meal ingredients (SOP 14)</b> .....	<b>46</b>
<b>6.15. Allergen declaration (SOP 15)</b> .....	<b>48</b>
<b>6.16. Food handling (SOP 16)</b> .....	<b>50</b>
<b>6.17. Cleaning and disinfection (SOP 17)</b> .....	<b>53</b>
<b>6.18. Responsibilities of Quality Assurance on site (SOP 18)</b> .....	<b>57</b>

<b>6.19. Physical hazards (SOP 19)</b> .....	<b>60</b>
<b>6.20. Chemical hazards (SOP 20)</b> .....	<b>61</b>
<b>6.21. Validation of measuring equipment (SOP 21)</b> .....	<b>62</b>
<b>6.22. Preventive maintenance (SOP 22)</b> .....	<b>63</b>
<b>6.23. Crisis management and recall (SOP 23)</b> .....	<b>64</b>
<b>6.24. Complaint management (SOP 24)</b> .....	<b>66</b>
<b>6.25. Continuous improvement and information flow (SOP 25)</b> .....	<b>67</b>
<b>6.26. Handling of overproduction (SOP 26)</b> .....	<b>69</b>
<b>6.27. Validation of the food safety system (SOP 27)</b> .....	<b>70</b>
<b>6.28. Internal Audits (SOP 28)</b> .....	<b>71</b>
<b>6.29. External audits (SOP 29)</b> .....	<b>72</b>
<b>7. Pathogens in food</b> .....	<b>73</b>
<b>7.1 Campylobacter spp</b> .....	<b>73</b>
<b>7.2 Clostridium perfringens</b> .....	<b>73</b>
<b>7.3 Escherichia coli</b> .....	<b>73</b>
<b>7.4 Listeria monocytogenes</b> .....	<b>73</b>
<b>7.5 Salmonella</b> .....	<b>73</b>
<b>7.6 Bacillus cereus</b> .....	<b>73</b>
<b>7.7 Staphylococcus aureus</b> .....	<b>73</b>

# 1. Introduction Food Hygiene and Food Safety

## Food Hygiene

Food hygiene refers to the activities necessary for the production of safe and healthy food. These activities include clean working conditions to keep the food free of bacteria as well as avoiding glass splinters, stones and other foreign objects.

Food safety of a product is ensured by permanent monitoring of the production processes and careful examination of hazardous production steps. For transparency of the production process the auditing processes shall be documented.

Bacteria are very common in food. They are very small and therefore not visible to the human eye. Most of the time they remain undetected.

How is food contaminated by bacteria?

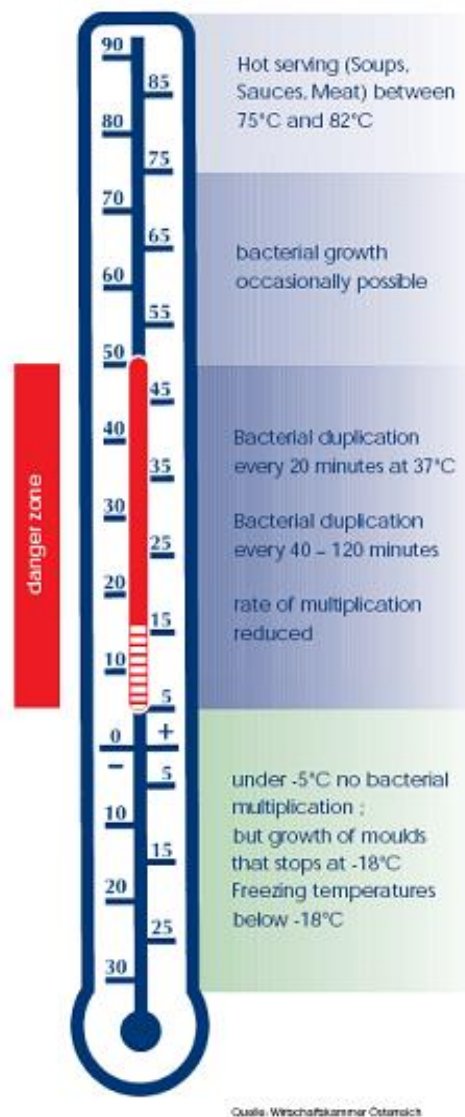
Raw food like raw fish and meat, unwashed vegetables, but also unclean equipment (knives, cutting machines, work surfaces, etc.) always carry bacteria. Through dirty hands, hair or sneezing and coughing, these bacteria can be transferred to cooked food and finally affect the health of our customers.

Under which conditions can bacteria multiply?

- Bacteria need warmth: They multiply at temperatures between 5°C and 65°C.
- Bacteria need moisture: Humidity is beneficial to bacterial growth.
- Bacteria need food: Unclean equipment and work surfaces are ideal for the multiplication of bacteria.
- Bacteria are stopped by acid: Acidification prevents bacteria from multiplying.

Bacteria multiply very fast:

<i>at the outset</i>	<i>after 3 hours</i>	<i>after 12 hours</i>
<b>1</b> bacterium	<b>512</b> bacteria	<b>8,500,000,000</b> bacteria





## HACCP

Foods prepared for DO & CO International Event Catering must be safe. This is a legal requirement as well as the basic expectation of our customers. Unsafe food production can be very harmful for our company.

Hazard Analysis and Critical Control Points (HACCP) is a systematic preventive approach to food safety that addresses physical, chemical and biological hazards as a means of prevention rather than finished product inspection. HACCP is used to identify potential food safety hazards, so that key actions, known as Critical Control Points (CCPs) can be taken to eliminate the risk or reduce it to an acceptable level.

HACCP was conceived in 1959 when NASA asked the Pillsbury company to design and manufacture the first foods for space flights. Since then, HACCP has been recognised internationally as a logical tool for adapting traditional inspection methods to a modern, science-based, food safety system. Based on risk-assessment, HACCP plans allow both industry and government to allocate their resources efficiently in establishing and auditing safe food production practices. Since 1993 the implementation of the HACCP principles is recommended by the Codex Alimentarius released by the Food and Agriculture Organisation (FAO).

HACCP consists of the following seven principles:

1. identifying any hazards that must be prevented, eliminated or reduced to acceptable levels (hazard analysis)
2. identifying the critical control points at the step or steps at which control is essential to prevent or eliminate a hazard or to reduce it to acceptable levels
3. establishing critical limits at critical control points which separate acceptability from unacceptability for the prevention, elimination or reduction of identified hazards
4. establishing and implementing effective monitoring procedures at critical control points
5. establishing corrective actions when monitoring indicates that a critical control point is not under control
6. establishing procedures, which shall be carried out regularly, to verify that the measures outlined in paragraphs 1 to 5 are working effectively
7. establishing documents and records commensurate with the nature and size of the food business to demonstrate the effective application of the measures outlined in paragraphs 1 to 6

Critical Control Point (CCP)

A step at which control can be applied and is essential to prevent or eliminate a food safety hazard or reduce it to an acceptable level.

CCPs must be measurable!

CCPs must be controllable!

Checks of CCPs must be documented!

In case of deviations corrective actions must be set and documented!

## Hazard analysis and risk evaluation

Following the food flow all potential hazards have to be identified and controlled. Potential hazards are divided into three groups:

- microbiological hazards (entry and/or growth of pathogens)
- chemical hazards (entry of detergents, lubricants, etc.)
- physical hazards (foreign bodies like glass, metal, wood, stones)

***bacteria***



***chemicals***



***foreign bodies***



Each detected hazard is reviewed by

- likelihood of occurrence
- severity of effect

All hazards need to be under control. Control means monitoring and then taking corrective actions when this control indicates any deviation.

Control measures, preventive and corrective actions are described in this standard through defined CCPs and SOPs. Safe food preparation and service in international event catering can only be achieved by careful control of hazards through CCPs and SOPs.



## 2. Scope

This standard covers all food safety related issues which exist in international event catering operations.

Risk assessment and general HACCP concept might have to be adapted for specific event reasons.

All rules and criteria in this standard are minimum requirements. Stricter requirements from national law or the particular customer must also be followed.

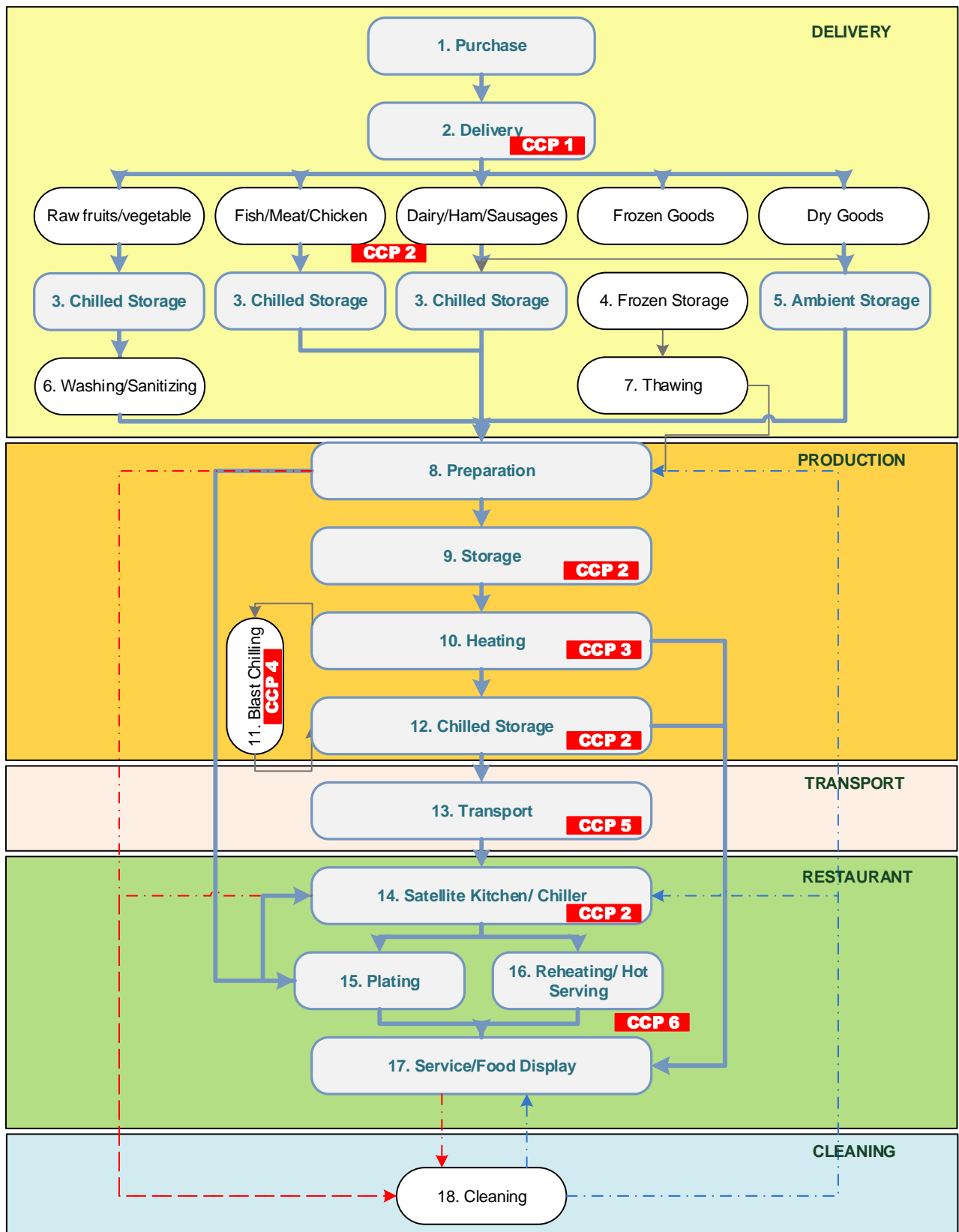
The following documentation has been produced as a result of studies undertaken by the Quality Assurance team in cooperation with responsables of the kitchen and event management.

A detailed assessment is made by the responsible QA Manager in collaboration with the event team for each event.

### **Critical Control Points (CCPs)**

- CCP 1**      Food receipt
- CCP 2**      Food storage temperature
- CCP 3**      Food cooking
- CCP 4**      Food chilling
- CCP 5**      Food transport
- CCP 6**      Food handling and service

### 3. Flow Chart




## **4. Risk Assessment**


Based on the Flow Chart above a risk assessment was conducted for each working step (separate document).

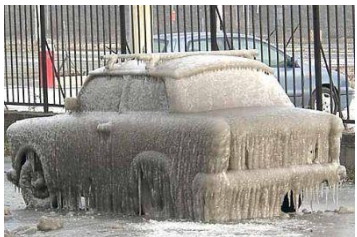
## 5. Critical Control Points

	<b>CCP 1 - Food receipt</b>
<i>Scope</i>	cooled, frozen and warm purchased foods
<i>Risk</i>	microbial growth
<i>Critical Limit</i>	1. temperature of: <ul style="list-style-type: none"> <li>• cooled food &lt;8°C</li> <li>• fish on ice ≤2°C</li> <li>• minced meat or prepared raw meat ≤2°C</li> </ul> 2. frozen food: hard surface and without signs of previous thawing. Temperature ≤-15°C
<i>Monitoring</i>	1. surface thermometer 2. manual testing / visual observation
<i>Corrective Action</i>  → <i>Responsible Staff</i>	1.1 surface temperature at critical limit → accept product and bring quickly under refrigeration 1.2 surface temperature exceeds critical limit → reject product 2.1 temperature between products exceeds critical limits → reject product  → Receiving Supervisor
<i>Frequency Monitoring</i>  → <i>Responsible Staff</i>	each batch of high-risk ready-to-eat foods low-risk foods at random  <i>Batch:</i> A delivery (one or several foods) from a supplier. Control may be done by checking several high-risk foods and recording the highest temperature.  → Receiving and Storage Staff
<i>Documentation</i>	Checklist CCP 1

	<b>CCP 2 - Food storage temperature</b>
<i>Scope</i>	coolers for storage of foods
<i>Risk</i>	microbial growth
<i>Critical Limit</i>	cooled food 0 - 4°C Except fish and minced meat 0-2°C Frozen food ≤-18°C
<i>Monitoring</i>	cooler and freezer temperature
<i>Corrective Action</i>  → <i>Responsible Staff</i>	cooler temperature ≥7°C or freezer temperature >-15°C → check if technical error AND food temperature transfer food to another chiller - check food quality → Technician, Department Supervisors, Hygiene responsible
<i>Frequency of Monitoring</i>  → <i>Responsible Staff</i>	three times a day Especially before and at the end of the production process the temperatures of the coolers must be checked. Coolers in the distribution areas are of particular importance. → Technician, Department Supervisors, Hygiene responsible
<i>Documentation</i>	Checklist CCP 2

**The doors of coolers shall only be opened if absolutely necessary.**


	<b>CCP 3 - Food cooking</b>
<i>Scope</i>	high-risk raw foods of animal origin
<i>Risk</i>	survival of vegetative pathogens, parasites and viruses
<i>Critical Limit</i>	Cooking holding time minimum 15 sec. <ul style="list-style-type: none"> <li>• raw poultry: core temperature <math>\geq 74^{\circ}\text{C}</math></li> <li>• raw minced meat, fish and shellfish: core temperature <math>\geq 74^{\circ}\text{C}</math></li> <li>• stuffed poultry, meat, fish or shellfish, and stuffing containing raw poultry, meat, fish or shellfish: core temperature <math>\geq 74^{\circ}\text{C}</math>,</li> <li>• liquid, raw eggs and products containing raw eggs: core temperature <math>\geq 74^{\circ}\text{C}</math> (exceptions: boiled, fried and poached eggs)</li> <li>• whole muscle meat and fish (eg. steaks of lamb, beef, salmon, tuna): seared on all external surfaces to effect a cooked colour change</li> <li>• sauces, soups and stew: visible boiling</li> </ul>
<i>Monitoring</i>	1.-4. check core temperature upon completion of cooking 5. visual check of colour change on surfaces 6. visual control if boiling
<i>Corrective Action</i>  → <i>Responsible Staff</i>	re-cook to prescribed core temperature or discard food training → Chefs
<i>Frequency Monitoring</i> <i>of</i>  → <i>Responsible Staff</i>	Each batch of high-risk raw foods of animal origin <i>Batch:</i> A volume of a specific high-risk raw food of animal origin being cooked under essentially the same conditions and at essentially the same time. The core temperature is taken at the biggest layer thickness of the batch. → Chefs, Hygiene responsible
<i>Documentation</i>	Checklist CCP 3/4

	<p><b>CCP 4 - Food chilling</b></p>
<p><i>Scope</i></p>	<p>cooked high-risk foods</p>
<p><i>Risk</i></p>	<p>microbial growth during chilling</p>
<p><i>Critical Limit</i></p>	<p>Food core temperature shall get from 60°C to below 5°C in less than 2 hours. Appropriate technical equipment shall be used (blast chiller).</p>
<p><i>Monitoring</i></p>	<p>check time and food core temperature at end of chilling</p>
<p><i>Corrective Action</i> → <i>Responsible Staff</i></p>	<p>re-heat and re-chill or discard food → Chefs</p>
<p><i>Frequency Monitoring</i> of → <i>Responsible Staff</i></p>	<p>Each batch of high-risk food <i>Batch:</i> A volume of cooked high-risk food being chilled under essentially the same conditions and at essentially the same time. The temperature is taken at the centre or greatest layer thickness of the batch. → Chefs, Hygiene responsible</p>
<p><i>Documentation</i></p>	<p>Checklist CCP 3/4</p>

\* Some local regulations:

*USA:* cooled from 60°C/140°F to 21°C/70°F within 2 hours and from 21°C/70°F to 5°C/41°F within 4 hours.


*Austrian Guidelines:* cooled from 70°C / 165°F to 10°C / 50°F within 1 hour.

	<p><b>CCP 5 - Food transport</b></p>
<p><i>Scope</i></p>	<p>chilled ready-to-eat-food (meals, desserts, etc.) delivered to satellite kitchens or other kind of cooled storage</p>
<p><i>Risk</i></p>	<p>microbial growth during transport to satellite kitchens or other kind of storage</p>
<p><i>Critical Limit</i></p>	<p>transport under chilled conditions (0-4°C) or transport within 45 min (from chiller to chiller)*</p>
<p><i>Monitoring</i></p>	<p>temperature control of the truck (before dispatch and after delivery) or time control</p>
<p><i>Corrective Action</i></p> <p>→ <i>Responsible Staff</i></p>	<p>loading: reduce ambient temperature (wait until truck temperature is 0-4°C before loading)</p> <p>unloading: check food temperature and discard food if core temperature is above 8°C</p> <p>→ Setup Crew</p>
<p><i>Frequency Monitoring</i></p> <p>→ <i>Responsible Staff</i></p>	<p>every batch</p> <p><i>Batch: A volume of kitchen trolleys at the same storage being transported to the same satellite kitchen or other kind of storage at the same time.</i></p> <p>→ Chefs, Setup Crew, Hygiene responsible</p>
<p><i>Documentation</i></p>	<p>Checklist CCP 5 or delivery sheet on kitchen trolley</p>

\* in case of long term transportation by vehicles, temp. must not exceed 4°C

All food has to be appropriately protected against contamination (rain, dust, foreign bodies, pests etc.).



	<p><b>CCP 6 - Food handling and service</b></p>
<p><i>Scope</i></p>	<p>high-risk ready-to-eat food</p>
<p><i>Risk</i></p>	<p>microbial growth during handling</p>
<p><i>Critical Limit</i></p>	<ol style="list-style-type: none"> <li>1. Plating of high risk ready-to-eat food (satellite kitchens): assembly within 45 min.</li> <li>2. Hot food display (buffet): food temperature not less than 70°C for not more than 2 hours.</li> <li>3. Cold food display: high risk food must be held at 4°C ±3°C. Food kept under temperature conditions higher than 7°C has to be discarded after 45 minutes.</li> </ol>
<p><i>Monitoring</i></p>	<p>check food temperature during the process</p>
<p><i>Corrective Action</i></p>	<ol style="list-style-type: none"> <li>1. discard if time limit is exceeded</li> <li>2. reheat or discard if temperature limit is exceeded, discard if time limit is exceeded</li> <li>3. use dry ice to keep temperature requirements, discard if time limit is exceeded</li> </ol> <p>→ Chefs, Hygiene responsible</p>
<p>→ <i>Responsible Staff</i></p>	
<p><i>Frequency Monitoring</i></p>	<p>every batch of high-risk ready-to-eat food</p> <p><i>Batch:</i> A volume of meals containing high-risk ready-to-eat food of the same type to be prepared on plates under essentially the same conditions and at essentially the same time.</p> <p>→ Chefs, Hygiene responsible</p>
<p>→ <i>Responsible Staff</i></p>	
<p><i>Documentation</i></p>	<p>Checklist CCP 6</p>

## **6. Standard Operating Procedures (SOPs)**

- SOP 1 Food supplier approval
- SOP 2 Facility requirements
- SOP 3 Water supply
- SOP 4 Pest control
- SOP 5 General requirements for staff
- SOP 6 Personal hygiene requirements
- SOP 7 Food safety training
- SOP 8 Receiving control
- SOP 9 Food storage
- SOP 10 Food thawing
- SOP 11 Washing and disinfection of raw produce
- SOP 12 Monitoring of food, hands and surfaces
- SOP 13 Labelling and traceability
- SOP 14 Control of hazardous meal ingredients
- SOP 15 Allergen declaration
- SOP 16 Food handling
- SOP 17 Cleaning and disinfection
- SOP 18 Responsibilities of Quality Assurance onsite
- SOP 19 Physical hazards
- SOP 20 Chemical hazards
- SOP 21 Validation of measuring equipment
- SOP 22 Preventive maintenance
- SOP 23 Crisis management and recall
- SOP 24 Complaint management
- SOP 25 Continuous improvement and information flow
- SOP 26 Handling of overproduction
- SOP 27 Validation of the food safety system
- SOP 28 Internal Audits
- SOP 29 External audits

## 6.1. Food supplier approval (SOP 1)

### **Purpose:**

To ensure safety of purchased items by use of procedures to fulfil agreed specifications as well as relevant food legislation.

### **Scope:**

All food suppliers

### **Procedure:**

Approval may be given after:

- On-site audit: includes a system audit AND a physical inspection of premises. This is especially performed at local suppliers (also market purchase) of high risk ready-to-eat food. No on-site audit needs to be performed at suppliers of high-risk foods of well-known commercial brands.
- System audit: assessment of supplier's food safety system using a questionnaire and asking for certificates of accreditation issued by a recognized governmental, regulatory or industry organization

Based on audit results suppliers shall be specified as:

- approved
- non-approved

DO & CO international purchase department shall establish and maintain a list of suppliers of high-risk ready-to-eat foods with indication of approval status as well as time schedule for approval audits and a list of non-approved suppliers.

Product specifications shall include quality parameters, allergen information, microbiological specification, storage and processing conditions (such as time-temperature limits for cooking, pasteurization etc.) and GMO (Genetically Modified Organism) relevant information.

Whenever GM free meals are requested by a customer, supplier shall be asked to guarantee that food is free of GMOs. The answer shall be documented.

**Monitoring:**

supplier approval status

**Documentation:**

Supplier Audit Checklist / Report

Supplier Questionnaire

Certificates, Product specifications

GMP Policy

**Responsibility:**

Purchase Department

## 6.2. Facility requirements (SOP 2)

### Purpose:

- To facilitate safe food production.
- To fulfil legal requirements.

### Scope:

All event locations (tents, buildings, allocated production areas...)

### 6.2.1. Facility requirements for production areas

#### (1) External areas

- Gateways to delivery area, external food storage have to be set up with hard, plain surface, without dust accumulation to avoid dust contamination of kitchens and food.
- Delivery areas, kitchen areas, food storage and staff toilets shall not be arranged near trees or bushes which might cause contamination through seeds, leaves etc... These areas have to be roofed.
- Waste collection centre, open sewage systems etc. must not be near delivery areas, production areas and food storage.

#### (2) Layout of production areas

- Enough space for hygienic segregation of different kitchen and storage areas (delivery area, raw food preparation, hot kitchen, cold kitchen, pastry, pot/dishwashing area) has to be provided.
  1. Segregation of clean and unclean areas.
  2. Depending on available space, kitchen shall be divided by (temporary) walls into the following parts:
    - different preparation areas
      - fish
      - meat/poultry
      - vegetables and fruits
    - hot kitchen
    - cold kitchen
    - pastry
    - pot/dishwashing area (*see SOP 17 Cleaning and disinfection*)

3. Essential kitchen separation:

- raw food
- cooking area
- dishwash

Raw and ready-to-eat food has to be handled separately at any time!

4. The delivery zone shall be separated from the production area.

- Shelves, pallet positions, etc. shall be planned for storing clean kitchen equipment and dishes - clean equipment can be stored below working tables only if covered and protected against contamination!
- Facilities for staff:
  - Staff corridors (e.g. to the staff area) shall be separated from production areas.
  - Changing rooms (separated for men and women) have to be located close to the main kitchen. A separate area shall be provided for storing private property.
  - Separated toilets for all staff working in the food production (1 toilet for approximately 20 staff) have to be provided, including a hand wash sink equipped with warm water, dispenser for soap, hand sanitizer, paper and waste basket. The sink must be operable by foot or sensor. The toilets have to be located close to the main kitchen and cleaned at least 4 times per shift. The toilets must not have direct access or air flow to the production areas.

**(3) Floors, doors, walls, ceilings and materials**

- Materials must be durable, non-absorbent, non-toxic, non-corrosive and easy to clean. Stainless steel is the preferred material for tables and food contact surfaces (wooden equipment and utensils are not allowed).
- The use of wooden pallets is forbidden in all food storage and production areas. If unavoidable, wooden pallets might be used, but must be completely foiled.
- In meat, fish and dairy cooler wooden pallets and boxes are strictly forbidden.
- The floor in production areas should be connected to the wall. It has to be hard, plain, easy to clean and resistant against mechanical demands. It should have drains. Any abrasions have to be repaired immediately.
- Walls shall be solid and made of easily cleanable materials up to a height of two meters. Gaps between floor and walls have to be avoided.
- All production and storage areas have to be roofed. Ceilings have to be free of dust or soil contamination. Ceilings shall be tight and washable.
- The installation of drains in all production areas is obligatory.
  - easy to clean
  - flow from high risk areas to low risk areas

- All production areas must have closable doors (self-closing) and windows. Solar radiation through windows into the production areas should be avoided.
- Lighting in production areas and food display areas
  - must be sufficient natural or artificial light (normal standard min. 500 lux 1 meter above floor).
  - must not cause excessive heat radiation.
  - should be protected against breakage. All lamps and bulbs in areas where open food is handled must be suitably shielded.
- To prevent pest and dust contamination:
  - All holes (eg. aircondition, ventilators, windows etc.) have to be sealed or covered with fly nets.
  - Air curtains should be installed where flying pest entry is likely.
  - Pot/dishwash areas have to be located in closed sections to avoid flying pest or dirt contamination.
  - All production and storage areas have to be roofed.
- Electrical power cables and similar installations should be assembled in a way that hygienic cleaning can be ensured without any physical risk.

#### **(4) Coolers and freezers**

- Sufficient space for separate storage of raw materials and (semi-)finished products must be available.
- Floors, walls and ceilings shall fulfil general requirements.
- Aggregates and ventilators shall be well maintained and kept clean.
- All units shall be equipped with thermometer and light inside.
- All units shall be lockable.
- If not roofed, coolers and freezers must be sealed/covered in order to be rainproof.

#### **(5) Climate control and exhaust system**

- All areas should be provided with adequate ventilation and/or air conditioning to prevent undesirable odours and vapours.
- Safe temperature requirements:
  - delivery area: 18°C up to max. 21°C
  - preparation area: 18 °C or less
  - cold kitchen: 18°C or less
  - pastry: 18°C or less
  - hot kitchen (all equipment in use): 25°C or less
  - pot/dish wash area: 25°C or less

All temperatures are maximum values during full production!

- Exhaust systems with appropriate capacity have to be installed in all kitchen areas with steam accumulation (grillers, ovens etc.).

### **(6) Water and sewage**

- Only potable water shall be used for all washing and food preparation processes.
- On each water extraction point a minimum pressure of 2 bar has to be reached, even at times of excessive water consumption.
- In case of any legal requirements regarding fat content in sewage, a grease separator should be provided to pre-clarify the effluent before entering the disposal system.

### **(7) Hand washing facilities**

- Each hand washing station shall include:
  - basin
  - warm water supply
  - non-hand operated tap
  - liquid soap and disinfectant incl. dispensers
  - paper towels
  - waste basket for used towels
  - signage with hand washing instructions
- Number and location of hand washing facilities:
  - at all entrances to food handling areas
  - minimum 1 station included in each toilet area
  - minimum 1 station in each food preparation area

Hand washing stations shall be easy to access and used exclusively for washing hands.

### **(8) Waste handling**

- Waste containers shall be available in all areas.
- Waste management: system provided based on estimated waste amounts and legal requirements.
- Waste containers shall be equipped with plastic bags.
- Waste containers shall be emptied with adequate frequency to avoid overfilling.
- Waste containers shall be cleaned and sanitized whenever excessively dirty and minimum once daily.



- Lids need to be non-hand operated.
- Waste must have a dedicated storage area which is separated from food handling areas.
  - stored in covered bins
  - waste must be picked up regularly by an authorised waste collector
  - bins shall be cleaned after each disposal

Especially important in hot countries as accumulation of waste will cause bad smell and attract pests.

- Used cooking oil must be collected in designated containers.
- Local rules for waste management must be followed at all times.

### **6.2.2. Facility requirements for satellite kitchens:**

Satellite kitchens (or backoffices) are rooms, tents or temporarily separated areas dedicated to re-heating, finishing and/or plating of semi-finished and ready-to-eat food.

Same facility requirements as stated for production areas apply, including the following amendments.

- All surfaces made of wood (or other material not fulfilling the requirements) must be covered in order to protect the food from contamination.
- Satellite kitchens must be equipped with sufficient cooling/freezing capacity according to PAX numbers and food type.
- Drinks and food shall be stored separately, if not possible in different cooling units then on separate shelves and trolleys.
- Room temperature shall not exceed 21°C.
- Food preparation shall not be crossed with waste handling or manipulation of dirty dishes.
- Restrict access to production and service staff only, satellite kitchens shall be separated from guest areas.

### **6.2.3. Facility requirements for buffets:**

#### **(1) Water supply**

- Only potable water shall be used. If the drinking water quality is not guaranteed, all employees must be instructed (use clearly visible signage).
- On each water extraction point a minimum pressure of 2 bar has to be reached, even at times of excessive water consumption.

#### **(2) Hand washing facilities**

- Every buffet (station) shall have a hand washing facility in proximity (no crossing of dirty or outdoor areas).
- Each hand washing station shall include:
  - basin
  - warm water supply
  - non-hand operated tap
  - liquid soap and disinfectant incl. dispensers
  - paper towels
  - waste basket for used towels
  - signage with hand washing instructions

Hand washing stations shall be easy to access and used exclusively for washing hands.

#### **(3) Waste handling**

- Each buffet, which is permanently attended by staff, has to be equipped with adequate waste bins (foot-operated lid, plastic bags).
- Potentially hazardous waste shall be collected separately and in adequate containers.
  - Broken china or glass in a designated plastic box.
  - Used burners in a designated metal bin.
- Used oil shall be collected separately and in adequate containers.

#### **(4) Infrastructure**

- Where required by authority, buffets need to be equipped with sneeze-guards.
- Behind the buffets:

- Materials must be durable, non-absorbent, non-toxic, non-corrosive and easy to clean. Stainless steel is the preferred material for tables and food contact surfaces.
- Plants in soil, elements made of wood (pallets, boxes, shelves etc.) or other potentially contaminating decoration elements shall be avoided or placed/used in such way to prevent food contamination.
- The floor has to be hard, plain, easy to clean and resistant against mechanical demands. Any abrasions have to be repaired immediately.
- Walls shall be solid and made of easily cleanable materials up to a height of two meters. Gaps between floor and walls have to be avoided.
- The buffet area needs to be roofed. Ceilings have to be free of dust or soil contamination. Ceilings shall be tight and washable.
- Direct sunlight on the buffet area shall be avoided.
- Food provided on outdoor buffets has to be protected against foreign body and dust contamination.
- Lighting in the buffet area:
  - must not cause excessive heat radiation.
  - should be protected against breakage. All lamps and bulbs in areas where open food is handled must be suitably shielded.
- To prevent pest and dust contamination:
  - All holes (eg. aircondition, ventilators, windows etc.) have to be sealed or covered with fly nets.
  - Air curtains should be installed where flying pest entry is likely.
  - Outdoor buffets have to be regularly monitored for pest infestations.
- Electrical power cables and similar installations should be assembled in a way that hygienic cleaning can be ensured without any physical risk.
- Any burnable materials, textiles or decoration shall be avoided.

**Monitoring:**

incorporate hygiene criteria during planning of event

internal audit

**Documentation:**

Audit checklist

**Responsibility:**

Orga Team

### **6.3. Water supply (SOP 3)**

**Purpose:**

Water for food production has to be safe.

**Scope:**

water for food production and cleaning

**Procedure:**

- Water supplied to the food production must be in accordance with “WHO Guidelines for drinking water quality” or local legal requirements if it is used for washing produce and cooking.
- Water used for ice machines (crashed ice, ice cubes and ice cream) must also be safe.
- Documented proof that supplied water meets required microbiological and chemical criteria is necessary.
- Water sampling:
  - To ensure the safety of water used for drinking, ice making and cooking, samples must be taken by an accredited laboratory. It provides a certificate if water quality is suitable for drinking.
  - If result is out of specification, water needs to be replaced by purchased water.

If safety of supplied water is not guaranteed, it will not be used for washing produce or cooking.

Water gallons will be purchased for those activities. Documents proving the drinking water quality need to be provided by the supplier.

**Monitoring:**

-

**Documentation:**

water test certificates

**Responsibility:**

Quality Assurance, Purchase department

## 6.4. Pest control (SOP 4)

### Purpose:

Prevention of chemical, physical and biological contamination caused by pests (rodents, flies, crawling insects, etc.).

### Scope:

all areas where food is handled, processed, stored and served

### Procedure:

Preventive pest control measures are mandatory in all production and event areas!

- Openings (doors, windows, etc.) to production areas shall be kept closed or be equipped so that access of pests is prevented. Windows kept open shall be fitted with fly nets.
- In all entrance areas to food production, fly traps shall be installed:
  - preferably 2 meters above floor level
  - not directly above food handling activities
- Fly traps with UV light and sticky boards are recommended (no “insect-ocutors”).
- Lockable rodent bait stations shall be installed around food storage and production areas.
- Animals eg. cats, dogs and birds must not be found inside premises.

### Authorised service company – requirements:

- First inspection round and installation of traps latest 5 days before production or event start (depending on location type).
- Regular preventive inspections once a week after first visit.
- Every visit must be documented and a written report shall be handed out.
- An emergency phone number (24 hours available, also on weekends) must be provided.
- Contractor shall have a consulting function (eg. in case of structural modifications).
- In case of acute pest infestation, contractor shall be on site within two hours after reporting. Used methods must be suitable for food production areas (eg. no poisonous chemicals in kitchen areas) and reported to Quality Assurance.

### Monitoring:

preventive checks by an authorised external company

**Documentation:**

written reports

**Responsibility:**

Quality Assurance, Event manager

## **6.5. General requirements for staff (SOP 5)**

### **Purpose:**

Monitoring of health status of all personnel.

### **Scope:**

all employees

### **Procedure:**

- Staff requirements for all employees (kitchen, storage, service, logistics, setup, purchase, management, cleaning,...):
  - Food safety training
  - DO & CO Health questionnaire
  - medical screening (stool analysis)
- Done upon entry to DO & CO and repeated minimum once a year.
- All documents of all staff must be stored and available upon request.
- Kitchen staff must have a certification of qualification (apprenticeship diploma or similar).
- If local authorities order further requirements, these requirements need to be fulfilled.
- Local staff must fulfil the local legal requirements.

### **Monitoring:**

-

### **Documentation:**

- DO & CO Health questionnaire
- Records of the medical screening

### **Responsibility:**

Crew Control



## 6.6. Personal hygiene requirements (SOP 6)

### **Purpose:**

Prevention of physical and microbial contamination by personnel.

### **Scope:**

all employees

### **Procedure:**

#### ***(1) Preconditions for food handling***

- Food handlers must be healthy!
- Food handlers suffering from skin infection, cuts and wounds, heavy burns, heavy eczema must not handle food until cleared by a doctor.
- Food handlers with symptoms from intestinal infection (diarrhoea, abdominal pain, vomiting, fever), sore throat, jaundice must not handle food until cleared by a doctor.

Food handlers have to inform supervisors immediately if they suffer from any of the symptoms mentioned above.

#### ***(2) Hand hygiene***

- Food handlers shall maintain skin and nails in a good condition. Nails shall be kept short and without nail polish.
- Cuts, scratches not showing signs of infection shall be covered with a waterproof, coloured dressing or plaster. During food handling, the dressing or plaster must be covered by a disposable glove.
- Hands shall be washed whenever needed, especially at the following occasions:
  - when entering the production area
  - after coughing, sneezing or any breaks (smoking, visit to the toilet, eating, drinking)
  - after cleaning and handling waste
- Hand washing shall be performed thoroughly by using soap and warm water, drying the hands and applying disinfectant.
- The use of disposable gloves is obligatory when handling ready-to-eat food.
- Disposable gloves are only to be worn at the working place (station) and to be removed as soon as work is finished.

The use of disposable gloves does not replace hand washing!

### **(3) Working clothes**

- Food handlers have to wear fitting and clean working clothes and head gear. Uniform consists of:
  - long trousers, apron
  - long sleeve jacket, coat or shirt (preferably white)
  - safety shoes (closed shoes)
- Uniform must be changed when necessary (eg. dirty, damaged).
- Uniform must regularly undergo professional cleaning.

### **(4) General hygiene rules**

- Staff who is not directly working in the production, may only enter if really necessary. They shall not disturb food handling processes and touch or cough on any food, equipment, etc.
- Entering production areas is only allowed with head gear (hair fully covered).
- Smoking, eating, drinking (except at permitted stations), spitting and chewing gum are forbidden in all production areas.
- Wearing jewellery, such as necklaces, bracelets, watches, rings, earrings, piercings in production areas is forbidden.
- There must be a first aid box available and accessible to all employees at all times.

### **(5) Rules for visitors**

- Visitors who intend to enter production areas need to fill out the DO & CO health questionnaire before entering. Visitors who declare and also show sign of any infection (digestive system, nose, throat) are not allowed to enter production areas.
- Before entering the production, visitors must wash and disinfect hands, wear head gear and a visitor's jacket (if available).
- Visitors are not allowed to wear any jewellery, such as necklaces, bracelets, watches, rings, earrings or piercings. If not removed, any jewellery must be fully covered.
- Visitors shall not disturb food handling processes and touch or cough on any food, equipment, etc.

#### **Monitoring:**

permanent monitoring during the production including regular hand swabs

#### **Responsibility:**

Head of department

#### **Documentation:**

Hand swabs

## **6.7. Food safety training (SOP 7)**

### **Purpose:**

All staff has to be trained in food safety related topics and processes.

### **Scope:**

all employees

### **PROCEDURE:**

#### ***(1) General training***

- All staff has to read the hygiene instructions followed by a short examination part. In case of failing the test they have to be given further training by the QA.
- Where required, more specific training should be done (on site) before production or event starts (eg. specific legal requirements, local circumstances, etc.)
- Training must comply with local legislation and be performed by qualified personnel.

#### ***(2) Refresher training***

- Refresher training is carried out any time any deviations from food safety practices are found.
- The effectiveness of the training is checked visually and verbally during work at the event.
- The Quality Assurance team (in cooperation with the Event Manager and the Head Chefs) is responsible that refresher trainings are carried out for whom it is necessary.

### **Monitoring:**

evaluation of the training results

### **Documentation:**

Training records

### **Responsibility:**

Quality Assurance, Head of department

## **6.8. Receiving control (SOP 8)**

### **Purpose:**

Verification of safety and quality of produce to prevent unsafe or low quality food.

### **Scope:**

all purchased goods

### **Procedure:**

#### ***Verify the following for each delivery:***

- Temperature check according to CCP 1 Food Receipt.
- Check weight, size, shape, colour, consistency.
- Food (except raw vegetables, fruits and bread) must be packed. Packaging material in direct contact with food shall be clean and undamaged.
- Food containers shall never be placed directly on the ground.
- Cans must not be bulged or show signs of mechanical damage or corrosion.
- Purchased foods should preferably not be in wooden cases. Wooden cases shall never enter the production area.
- Purchased packed food shall be labelled with expiry date (best before, use by, etc.). Expiry dates have to be recorded.
- If there is no expiry date (e.g. fresh fish, vegetables) the products have to be labelled with the receiving date.
- Transport vehicles for purchased goods shall be clean (load compartments).
- Food containers shall be stored on plastic pallets or shelves (smooth, easy to clean surface).
- Delicate fresh delivered products like fish or meat need to be checked by chefs of the relevant department.

#### **Delivery of living products:**

- Lobster and crawfish must be alive at time of delivery (still moving properly). They have to be placed in the raw fish cooler. Sufficient airflow shall be ensured.
- Oysters and living shells have to be closed, no ammonia smell, shell needs to be filled with fluid.

Freshness test of fish:

- Fish completely covered with ice, moist surface, red and fleshy gills, pressure marks need to vanish quickly, stiffness of whole fish (rigor mortis), clear eyes, no bad smell.

***If product does not meet guidelines***

→ reject immediately, record complaint and number of returned goods, inform purchase department

If product is not returned immediately label visibly (“do not use”).

**Monitoring:**

random samples of each delivery

**Documentation:**

CCP 1 data recorded on delivery paper

**Responsibility:**

Storage Staff, Chefs

## 6.9. Food storage (SOP 9)

### Purpose:

To avoid food contamination (bacterial growth, physical hazards,...) and to preserve food quality.

### Scope:

storage of all food, crockery, pots, packaging material for food

### Procedure:

#### (5) temperature control

- *cooler*: according to CCP 2 Food storage temperature
- *freezer*:  $\leq -18^{\circ}\text{C}$ 
  - if freezer exceeds  $-18^{\circ}\text{C}$ 
    - check product surface
    - if soft, transfer food to another freezer or defrost completely

Check temperatures of cooling/freezing units three times a day!

#### (6) storage rules

- Food storage areas need to be locked whenever unattended.
- Separate storage for different food types:
  - raw, semi-finished and ready-to-eat food must be stored separately
  - raw food of animal origin must be separated from raw food of plant origin
  - raw foods of different animal origin should be separated if possible
- Storing practice:
  - all goods need to be adequately packed
  - no outer packaging in the ready-to-eat food coolers
  - no food containers stored directly on the floor
  - wooden pallets are not allowed in coolers and freezers for ready-to-eat food
  - plastic pallets are preferred in the delivery area, wooden pallets might be used if unavoidable, but must be completely foiled
  - material or equipment stored on top of cooling units shall be avoided or maintained in a way to avoid any hazard of contamination

- Distribution of food with kitchen trolleys:
  - separate transport of raw goods and ready-to-eat food if possible

If it is unavoidable to transport raw and ready-to-eat products together, **raw** goods must be stored **below** ready-to-eat goods!

**Monitoring:**

daily checks of storage

**Documentation:**

Checklist CCP 2

Audit checklist

**Responsibility:**

Storage Staff, Chefs, Quality Assurance

## **6.10. Food thawing (SOP 10)**

### **Purpose:**

Control of bacterial growth during thawing.

### **Scope:**

thawing of raw food of animal origin and ready-to-eat food

### **Procedure:**

- Thawing methods
  - under refrigeration (cooler)
  - small amounts under running cold water (in water-tight packaging)
  - cooking
  - at ambient temperature → when food surface temperature exceeds 8°C → transfer to cooleror local regulations
- Thawing rules
  - segregation between raw and ready-to-eat food during thawing
  - thawing water must be disposed carefully
  - labelled with defrosting start date

Thawed food shall not be refrozen!

Thawed food shall be used within 72 hours after defrosting start!

### **Monitoring:**

check of surface temperature

### **Documentation:**

-

### **Responsibility:**

Storage Staff, Chefs



## 6.11. Washing and disinfection of raw produce (SOP 11)

### **Purpose:**

Reduction of microbial and physical contamination.

### **Scope:**

raw vegetables and fruits shall be washed prior to portioning and / or service

If no constant potable water supply is certain, fruits and vegetables for raw consumption shall be disinfected!

### **Procedure:**

#### ▪ **Washing of vegetables and fruits**

*The following steps shall be carried out:*

- preparation (removal of damaged parts, major foreign bodies, separation of leaves etc.)
- washing in potable water
- visual check of cleanliness

#### ▪ **Disinfection of vegetables, salad, fresh herbs and fruits for raw consumption**

Requirement of disinfection depends on water quality, legal requirements and growing method of the product (use of organic fertilizer like night-soil, sewage).

*The following steps shall be carried out:*

- preparation (removal of damaged parts, major foreign bodies, separation of leaves etc.)
- washing / disinfection in a solution of a chemical disinfectant of appropriate type and concentration

For all chemicals, concentration and exposure time must be as per manufacturer's specifications.

### **Monitoring:**

Visual check of cleanliness

Check of disinfectant concentration

### **Documentation:**

-

### **Responsibility:**

Chefs

## 6.12. Monitoring of food, hands and surfaces (SOP 12)

### Purpose:

To check if food is safe and fulfilling the legal requirements. It is a verification of the effectiveness of the control system.

### Scope:

purchased food, in-house semi-finished and finished food, surfaces and hands

### Procedure:

#### (1) Food Testing

- Methods used shall be standard method for that particular country or internationally accepted method or equivalent validated method.
- An accredited laboratory shall be defined for cooperation and perform all microbiological and chemical tests.
- Microbiological testing plan and results of analyses shall be documented.
- Production unit:  
A set of retainer samples shall be taken before every transport to the event location. (Random analyses of 5-10 samples recommended for monitoring.)
- Event location:  
A set of retainer samples shall be taken before every service. (Random analyses of 5-10 samples recommended for monitoring.)

#### (2) Handswabs

- Handswabs are taken from food handlers in the production unit in order to monitor the effectiveness of hand washing.
- Swabs are specific for *E.coli* and coliforms → any growth is a deviation → training and repeated testing of employees
- records of results must be kept

#### (3) Surfaces

- Surfaces are tested to monitor the effectiveness of cleaning.
- Instant results show residues of protein origin ("Clean Card" quicktest) → colour change is a deviation → repeat cleaning and test again
- records of results must be kept

**(4) Parameters and limit values**

Parameters and limit values given by current legal requirements (applying to the specific location) and/or recommendations by recognized institutions (eg. DGHM) must be met.

**Monitoring:**

Regular swabtests and food sampling

**Documentation:**

Swabtest and Foodsampling records

**Responsibility:**

Quality Assurance

### 6.13. Labelling and traceability (SOP 13)

**Purpose:**

- Monitoring of production dates and shelf life of internally processed products.
- Labelling according to legal requirements.

**Scope:**

all internally processed food

**Procedure:**

All food is purchased from known, trusted and approved suppliers.

- If there is no “best before” / expiry date, received goods are labelled with delivery date.
- All semi-finished food is labelled either with the date of
  - production or
  - start of defrosting or
  - freezing or
  - vacuum packaging or
  - decanting.

**INTERNAL SHELF LIFE RULES**

Cold processed items	2 days
Heat processed items	3 days
Defrosted products	3 days
Decanted perishable products	5 days
Vacuumed products	5 days
Frozen products	21 days

If shelf-life exceeds duration of event, it is also allowed to label with opening/production date only. Examples are decanted or (semi-)finished products with long shelf life like flour, rice, chocolate bars, spices, etc.

## **PACKED GOODS**

A labelling system for all packed products following local legal regulations, food safety standard and customers' expectations must be implemented.

Claims must be added according to local requirements (eg. additives, colourings, meat origin, etc.) if not covered by rules set up in Reg. (EU) No. 1169/2011.

## **DEFINITIONS**

*Tracing:* systematic identification of supplier from or through whom a food or beverage has been purchased

*Tracking:* systematic identification of the customers to whom the food or beverage has been supplied

*Internal tracking:* systematic identification of additional menus in which the actual food or residuals is used as an ingredient

### **Monitoring:**

check all stored goods in the production unit

check all packed food before distribution

### **Documentation :**

CCP 1 records

Crisis management checklist

### **Responsibility:**

Purchase, Storage responsible, Chefs, Quality Assurance

## 6.14. Control of hazardous meal ingredients (SOP 14)

### Purpose:

The prevention of use of meal ingredients, which may constitute a microbiological or chemical hazard.

### Scope:

all offered meals

### Procedure:

The list below contains items which may constitute a health risk and may induce foodborne illness. Therefore, it is not allowed to include these items in meals – or only under specific conditions.

Meal Component	Hazard	Action
raw / undercooked poultry	<i>Salmonella</i> , <i>Campylobacter</i>	Heating to core temperature of min. 74°C, 2 minutes.
raw / undercooked eggs	<i>Salmonella</i> , <i>Campylobacter</i>	Not allowed!
raw / undercooked meat	<i>E.coli</i> (EHEC), <i>Salmonella</i> , parasites	No raw meat is allowed to be served.  High quality whole muscle meat ( <i>beef, duck and lamb</i> ) from approved suppliers shall be served “medium” (at adequate core temperature), all external surfaces must be seared (visible colour change).  Only if environmental conditions are similar to a restaurant kitchen (enough cooling capacity, enough space for preparation / assembly, time outside cooler kept as short as possible).
raw fish and shellfish	<i>Vibrio parahaemolyticus</i> , parasites	No raw fish is allowed to be served.  Only high quality fish ( <i>tuna, salmon etc.</i> ) from approved suppliers is served medium, all external surfaces seared.  Do not interrupt cooling chain ( $\leq 2^{\circ}\text{C}$ and/or on ice)!

fresh shells	<i>Vibrio parahaemolyticus</i> , parasites, toxins from dinoflagellata (e.g. <i>Gambierdiscus toxicus</i> )	Use only high quality shells from approved suppliers.
unpasteurised milk and cream	<i>Salmonella</i> , <i>Staph. aureus</i>	Do not serve unpasteurised milk and cream!
soft cheese from raw milk	<i>Salmonella</i> , <i>Staph. aureus</i> , <i>Listeria</i>	Do not serve unpasteurised soft cheese!
mayonnaise made from raw eggs	<i>Salmonella</i>	Use only pasteurized eggs.
raw vegetable sprouts	<i>Salmonella</i> , <i>Listeria</i>	Only cooked or pickled products used for service.
raw / undercooked dried beans	Lectins	Do not serve undercooked dried beans!
unpasteurised fruit and vegetable juices	Pathogens from faecal contamination, e.g. <i>E.coli</i>	Serve only juices with a pH under 4.6 and/or for immediate consumption.
raw coconut	<i>Salmonella</i>	Use only desiccated coconut from approved suppliers.

**Monitoring:**

during meal development and / or meal presentation

**Documentation:**

-

**Responsibility:**

Event Manager, Head Chefs, Quality Assurance

## **6.15. Allergen declaration (SOP 15)**

### **Purpose:**

Consumers who are allergic or intolerant to specific substances in specific foods may ask for the composition of the meals. These substances are generally referred to as food allergens which can lead to physical allergic reactions.

### **Scope:**

all offered meals

### **Procedure:**

The guests have to be informed about allergens contained in a served meal item.

It must be ensured that the service staff and chefs are aware of possible allergens in each meal and able to provide this information upon request. Therefore, a list with allergens contained in each meal should be handed out and kept easily available.

The list of allergens contained in the meals must be done by trained personnel (eg. QA) in cooperation with headchefs. Only QA and headchefs are allowed to create and/or modify the written allergen declaration.

## **ALLERGENS**

An allergen is a substance in our environment (eg. food ingredients, food additives) which by contact may trigger an adverse response by the human immune system.

According to Reg. (EU) No. 1169/2011 the following 14 substances must be declared if contained in a served meal:

- cereals containing gluten (wheat, rye, barley oats, spelt, kamut or their hybrid strains)
- crustaceans
- celery
- egg
- milk (including lactose)



- fish
- mustard
- sesame seeds
- lupines
- molluscs
- nuts i.e. almond, hazelnut, walnut, cashew, pecan nut, Brazil nut, pistachio nut, macadamia nut, Queensland nut
- peanuts
- soy
- sulphur dioxide and sulphites at concentrations of more than 10mg/kg or 10mg/kg expressed in SO<sub>2</sub>

**Monitoring:**

during meal development and / or meal presentation

**Documentation:**

allergen handout

**Responsibility:**

Head Chefs, Quality Assurance

## **6.16. Food handling (SOP 16)**

### **Purpose:**

Prevention of microbiological, physical or chemical contamination by food handlers, service, equipment and environment.

### **Scope:**

handling of all kinds of food

### **Procedure:**

#### **(1) Prevention of cross contamination**

- Separated handling of raw foods of animal origin, (semi-)finished products, fruits and vegetables or segregation by time and different equipment.
- Segregation by time: used equipment and machines have to be cleaned and disinfected between the different process steps.
- Different products have to be handled on colour coded cutting boards (see table below).
- Boards with deep cuts and/or furrows have to be sorted out and either discarded or repaired.
- Food handling equipment (knives etc.) must be cleaned and disinfected BEFORE and AFTER each process (see *SOP 17 Cleaning and disinfection*).
- It is not allowed to use equipment or utensils made out of wood except working surfaces necessary for dough manipulation. This surface has to be well maintained and regularly inspected. Unavoidable utensils (sushi bamboo) shall be well maintained and cleaned / disinfected thoroughly before use.
- Disposable cleaning tissues have to be used instead of cloth tissues.
- Food handling equipment must be stored in cleanable boxes/cases. Bags for knives are not allowed to be placed on clean surfaces like working tables – only in designated areas.
- Foods and food containers must not be stored directly on floor, but shall be stored on shelves or plastic pallets.
- Prevention of contamination by staff see *SOP 6 Personal hygiene requirements*.
- Introduction of outer packaging materials should be minimised in the kitchen.
- Supplier packaging materials cannot be used for packing other products (e.g. banana boxes for sandwiches).
- Food handling environment shall be kept and maintained clean.
- Food shall be stored covered.

- See also *CCP 6 Food handling and service*.
- Take only that amount out of cooler that can be processed within a short time. The hotter the kitchen - the smaller the amount of goods to be processed!

Cold chain needs to be maintained throughout the food flow!

## **(2) Handling of potentially hazardous and high risk food**

- **Raw eggs**

Don't wash eggs with water! Washing eggs can remove their natural protective coating - called "bloom" - which prevents harmful bacteria from entering. During washing, bacteria (e.g. salmonella) may enter the shell and contaminate the inner egg.

For handling raw eggs a segregated area or segregation by time from other production steps shall be done.

Disposable aprons have to be worn.

Egg shells and egg packaging materials have to be removed immediately from the kitchen.

The area has to be cleaned and disinfected after the handling process.

See also *SOP 14 Control of hazardous meal ingredients*. Raw eggs shall not be consumed/served undercooked.

- **Minced meat, fish, poultry**

Purchased fresh minced products have to be used on the day of delivery.

Homemade minced products have to be produced from fresh, high quality products. These products have to be used within 24 hours.

Storage temperature 0-2°C.

- **Preparation of raw poultry**

Separated from all other activities (table can be moved away from the others).

Disposable aprons have to be worn. Cleaning and disinfection after handling.

- **Frying fat**

Maximum heating temperature  $\leq 175^{\circ}\text{C}$ .

Perform sensory tests and change dark coloured or foaming oil.

- **Salads**

Creamy salads have to be served immediately after production (not more than 2 hours) or stored chilled.

Cooked eggs and potatoes have to be stored unpeeled and chilled.

- **Hot buffet**

Hot served products have to be held over 70°C for not more than 2 hours.

- **Cold buffet**

Storage time for non-temperature controlled cold buffet shall be not more than 45 min.

Storage temperature for temperature controlled cold buffet of high-risk food shall not exceed 8°C (target temperature 4°C).

### **Monitoring:**

during production

temperature of hot and cold buffet: at start of buffet

**Documentation:**

Checklist CCP 3 / 4 Cook and Chill  
Audit checklist

**Responsibility:**

Storage Staff, Chefs, Service

**Colour code of cutting boards:**

<b>RED</b>	raw meat
<b>YELLOW</b>	raw poultry
<b>BLUE</b>	raw fish
<b>GREEN</b>	raw vegetables/fruits/mushrooms/herbs
<b>WHITE</b>	ready-to-eat food

## **6.17. Cleaning and disinfection (SOP 17)**

### **Purpose:**

Ensuring visual cleanliness and absence of microbial contamination.

### **Scope:**

cleaning procedures for kitchen equipment, utensils (pot wash), crockery, dishes, glasses (dish wash) and surfaces

### **Procedure:**

#### **(1) General cleaning rules**

- All surfaces which are or might be in direct contact with food (work surfaces, slicing machines, etc.) must be
  - cleaned with hot water
  - with a suitable detergent
  - rinsed with clear water
  - dried with disposable towels
  - and disinfected
- During cleaning process, food, clean dishes, etc. should be protected from potential contamination with washing water.
- Cleaning chemicals must be
  - stored separately
  - stored at a safe distance from all food items
  - clearly identified with labels
  - approved and safe
  - kept in their original containers or in properly labelled containers
- Only clean sponges, brushes, etc. are to be used for cleaning.
- Non disposable towels (e.g. tea towels) are forbidden.
- If possible, brooms, scrubbers and brushes shall be hung up for storage.
- All cleaning equipment is to be cleaned at least once a day.

No wooden brooms or brooms with animal hair or straw are allowed in the production area!

## **(2) Cleaning schedule**

- Cleaning procedures have to be prescribed for surfaces and equipment.

The cleaning schedule must specify the following:

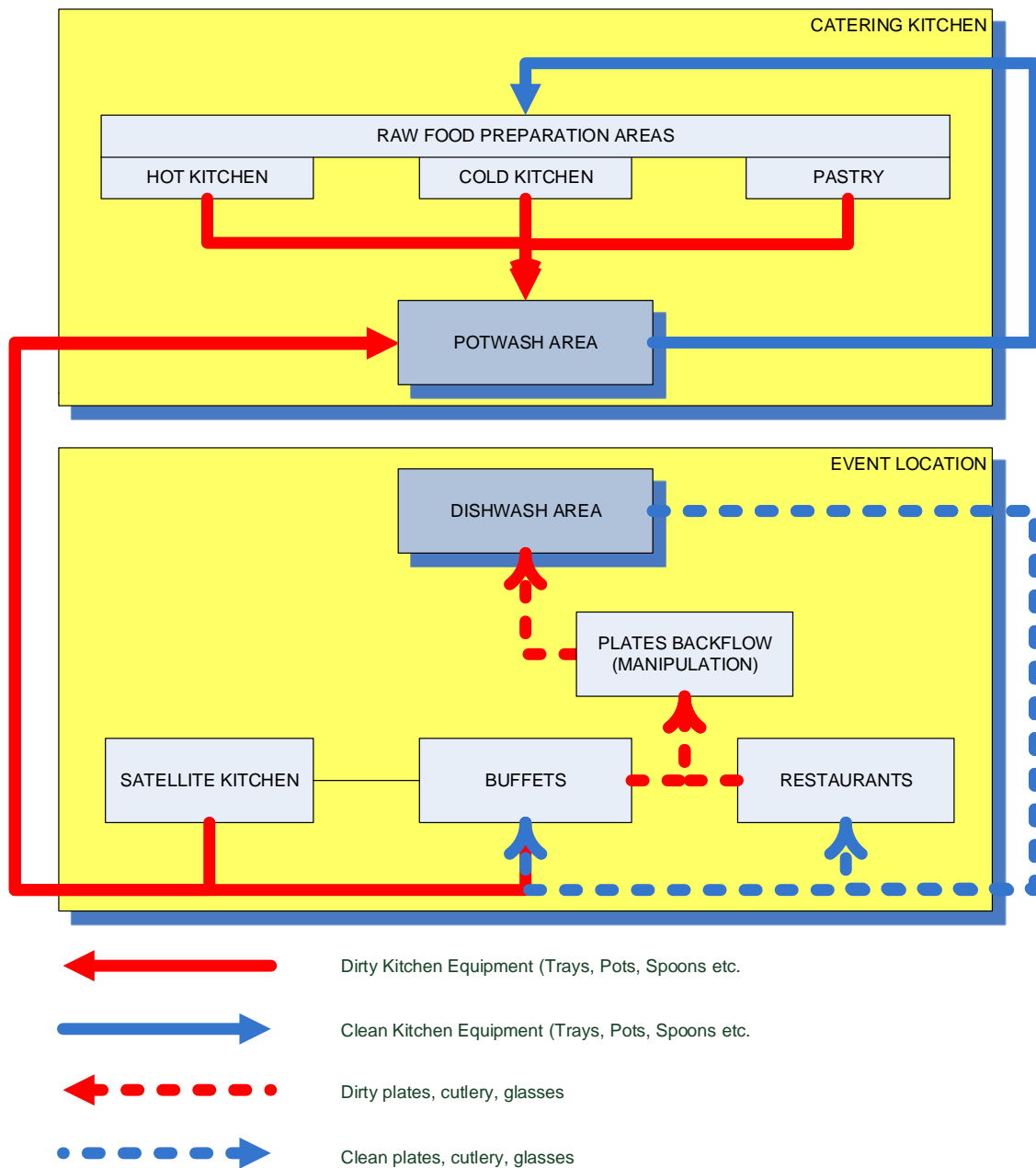
- item / surface / equipment to be cleaned
- frequency (if no frequency indicated: daily)
- detergents
- cleaning instructions (concentrations, contact time, equipment required, etc.)

## **(3) Storage of clean equipment**

- Clean equipment shall be visually clean.
- All clean equipment shall be protected from contamination, eg. upside down storage, covering, etc.
- Visibly unclean equipment shall be sorted out for rewashing before storage in clean equipment area.

## **(4) Pot and dish wash**

- Separated physically or by distance from food handling, storage areas and waste disposal area.
- Well ventilated and protected against pests.
- Washing areas shall consist of the following sections:
  - unclean equipment area
  - washing area
  - clean equipment storage (well separated from other dish wash sections)
- Flow shall be a one-way system, crossing of clean and unclean equipment must be avoided.
- Washing machine
  - well maintained and cleaned regularly
  - temperature of wash water: 55-65°C
  - temperature of final rinse (monitored on machine thermometer): minimum of 83°C OR fulfil local legislation
  - concentrations have to be checked at least at the beginning of an event by the external service company



- Dirty dishes, glasses and cutlery is collected from the service staff in the catering area and brought to the backoffice area. There the waste is removed and the equipment is stored in different boxes and racks separately (glasses, plates, knives, forks etc.). After the end of the event this equipment is washed on site. Clean equipment is brought back to the buffets, restaurants and kitchens.
- Dirty trays, chafing dish inlays, pots, cooking spoons are collected from the buffets or the satellite kitchens when empty or not used anymore. After the event all equipment is transported back to the production unit for washing. Equipment needed for transport, for the satellite kitchens or the catering area is transported together with the food.

**(5) Cleaning of special equipment (examples)****cleaning of whipped cream dispenser**

- emptying and demounting of dispenser
- cleaning with hot water and drying

**cleaning of coffee pots**

- emptying of coffee pot
- cleaning with hot water and drying

**Monitoring:**

visual check and swabs

**Documentation:**

cleaning plan

**Responsibility**

Cleaning Staff, Setup, Chefs, Service





## **6.18. Responsibilities of Quality Assurance on site (SOP 18)**

### **Purpose:**

To ensure all actions of Quality Assurance are done correctly and consistently.

### **Scope:**

all production and service areas used during event catering

### **Procedure:**

#### **(1) PRODUCTION AREA**

##### **Before start of production – during setup**

- Check kitchen setup according to checklists (kitchen flow, layout, maintenance).
- Check staff facilities according to checklists (changing rooms, toilets, hand wash facilities, canteen, working clothes).
- Perform hygiene briefing for all relevant staff.
- Check the functionality and setup of pot and dish wash machines, sinks and other relevant technical equipment.
- Make inventory of cleaning detergents and other hygiene equipment. Check availability in the kitchen.
- Check functionality and setup of coolers and freezers together with technician. Instruct technician about documentation of cooling house temperatures in CCP 2 list.
- Check other storage areas and food receiving area.
- Check waste disposal management and areas.
- Instruct deep cleaning of all production areas. Check and approve.
- Non-conformities must be documented (daily report). Plan and implement measures to manage deviations. Severe cases must be reported to the Quality Assurance Manager immediately.

##### **Production days**

- Check temperatures and storing practice of all storage areas. Check regular documentation of temperatures of coolers and freezers and instruct deep cleaning.
- Check delivered products together with chefs and storage responsables.

- Check cleanliness of all areas and equipment in the morning and in the evening after production end and instruct deep cleaning. Surface swabs are taken in the morning.
- Check personal hygiene (working clothes, handwashing etc.). Perform hand swabs.
- Production control during the production: Monitor compliance with the hygiene standard (personal hygiene, food handling, washing of produce, administration of checklists etc.).
- In case of non-conformities responsible staff is contacted:
  - In matters of cleaning: Cleaning Manager
  - Storage practice, washing of produce, food handling, labelling: Cold/Hot Kitchen Chefs and Headchefs, Pastry Chefs and Headchef, area responsible staff
  - In matters of technical issues with power supply or equipment: technician
- Check of the correct transport practice (eg. clean, cooled, food covered etc.).
- Measure and document temperatures of transport vehicle and all dispatched food.
- Collection of retain samples from products prepared for transport to the kitchen.

## **(2) SERVICE AREA**

### **Preparation days**

- Check kitchen setup according to checklists (kitchen flow, layout, maintenance).
- Check staff facilities according to checklists (toilets, hand wash facilities, changing rooms if applicable).
- Perform hygiene briefing for all relevant staff.
- Check the functionality and set up of dish washing machines, sinks and other relevant technical equipment.
- Check availability of cleaning material and detergents in the relevant areas.
- Check functionality and set up of coolers and freezers. If provided for the event only (not built-in): together with technician. Instruct technician about documentation of temperatures in CCP 2 list.
- Check waste disposal management and areas, instruct correct separation (if applicable).
- Instruct deep cleaning of all relevant areas. Check and approve.
- Check and register temperatures of coolers and freezers before food is delivered and stored. Check correct storing practice of all storage areas.
- Check compliance with the hygiene standard (personal hygiene, food handling, administration of checklists etc.).

### **During event**

- Check and register temperatures of coolers and freezers regularly. Check correct storing practice in all storage areas.
- Check cleanliness of surfaces and equipment in the morning and in the evening after deep cleaning. Surface swabs may be performed in case of doubt.
- Attend kitchen meeting. If necessary, point out specific risks.
- Attend service meeting. If necessary, point out specific risks.
- Control during the final preparation and during the event in all areas: Check compliance with the hygiene standard (personal hygiene, food handling, re-heating, administration of checklists etc.).
- Check all buffets and satellite kitchens (documentation of food temperatures).
- Collection of retain samples. Take approximately 80 g of food per sample, pack, label and freeze.

### **(3) REPORTING AND INFORMATION FLOW**

- In case of external audits (authority control) a written report has to be done and sent via e-mail to relevant parties in order keep all team members in the loop.
- In urgent matters any authority-related issues, the Quality Assurance Manager shall be informed by phone immediately.

#### **Monitoring:**

daily reports

#### **Documentation:**

daily reports, checklists

#### **Responsibility:**

Quality Assurance

## 6.19. Physical hazards (SOP 19)

### **Purpose:**

To prevent any physical contamination.

**Definition physical hazard:** a foreign body in food with the potential to cause an adverse health effect. Common extrinsic foreign bodies include pieces of glass, plastic, metal, minerals, hair. Foreign bodies can also be intrinsic (eg. bones, pieces of peel or roots).

### **Scope:**

all purchased and in-house products

### **Procedure:**

- Avoid use of glass in food handling areas.
- Store glass, jars and china in plastic bins on lower shelves.
- Check glass and china equipment before use. Discard chipped, cracked or otherwise damaged items.
- In case of breakage all glass pieces shall be picked up and disposed of appropriately.

All food that may have been contaminated shall be strictly discarded!

- Lamps must be shatterproof.
- Before maintenance work in production areas, food needs to be removed and covered with foil. After maintenance work the working place has to be cleaned and checked by responsible chef. Technicians entering food handling areas shall take all precautions to avoid food contamination.
- Fruits and vegetables must be removed from the original packaging, thoroughly washed and visually inspected prior to processing.
- Food handlers must not wear rings, earrings, necklaces, bracelets, facial piercings. All food handlers must cover their hair appropriately.
- All stored (semi-)finished food must be covered to prevent foreign object contamination.

### **Monitoring:**

preventive measures (training)  
regular visual checks

### **Documentation:**

-

### **Responsibility:**

all staff

## 6.20. Chemical hazards (SOP 20)

### **Purpose:**

To prevent any chemical contamination.

**Definition chemical hazard:** any chemical agent that has the potential to cause illness or injury. Food chemical hazards can be classified into any one of the following three groups: chemicals that occur naturally, chemicals that you may use in the formulation of your finished product or chemicals that are unintentionally or incidentally present in your finished product.

### **Scope:**

all purchased and in-house products

### **Procedure:**

- cleaning chemicals
  - store detergents separately
  - detergents to be used in the food handling area shall be stored at a safe distance from all food items
  - all chemical agents shall be identified with labels
  - only approved chemicals shall be used
  - detergents must be kept in their original containers or in clearly marked containers
- pest control agents
  - pest control chemicals must only be used by authorized personnel
  - no spray chemical treatment against pests shall be applied in food handling areas
  - only approved chemicals shall be used by the pest control contractor
- lubricants
  - only food grade lubricants must be used for technical equipment
- pesticides
  - food suppliers have to meet legal requirements
  - fruits and vegetables must be thoroughly washed with potable water

### **Monitoring:**

preventive measures

### **Documentation:**

-

### **Responsibility:**

all staff

## **6.21. Validation of measuring equipment (SOP 21)**

### **Purpose:**

Ensure accuracy of temperature measuring equipment.

### **Scope:**

thermometers used during events

### **Procedure:**

- Thermometers must be available at all times where required.
- Thermometers shall be validated by use of a calibrated reference thermometer or by using ice and/or boiling water.
- Probe and surface thermometers have to be checked at least once a year.
- Thermometers in coolers and freezers have to be validated by the contracted supplier.
- Each thermometer shall be identified with a code.
- If a thermometer reveals any deviation within a tolerance of  $\pm 1^{\circ}\text{C}$  for probe thermometer and ambient thermometer and  $\pm 2^{\circ}\text{C}$  for infrared thermometer this deviation shall be noted. If the deviation exceeds this tolerance, the thermometer must be adjusted or replaced.
- Calibrated reference thermometers must be checked periodically by an accredited company.

### **Monitoring:**

internal audits

### **Documentation:**

thermometer calibration record

### **Responsibility:**

Quality Assurance

## 6.22. Preventive maintenance (SOP 22)

### **Purpose:**

To ensure that all equipment that could have a direct impact on food safety, is under a preventive maintenance programme.

### **Scope:**

all equipment which has a direct impact on food safety (coolers, freezers, ovens, blastchillers, pot or dish washing machines, refrigerated trucks etc)

### **Procedure:**

- A preventive maintenance programme that includes periodic maintenance of food safety related equipment shall be implemented.  
*Preventive maintenance programme shall include:*
  - maintenance of equipment before delivery to event locations
  - maintenance of equipment as soon as the equipment is set up on event
  
- The following points have to be fulfilled for each event:
  - all hand washing sinks shall be fitted with warm water
  - before first use of pot and dish washing machines the temperature and chemical dosing devices have to be checked
  - sewage water shall run through a fat extractor (if applicable)
  
- Hygiene guidelines for maintenance work:
  - all food must be protected against contamination during maintenance work
  - after maintenance work is finished, responsible chef has to check the concerned location or equipment before resuming food production
  - technicians from external companies have to fill out the visitor questionnaire before entering the production premises

### **Monitoring:**

internal audits

### **Documentation:**

audit checklist

### **Responsibility:**

Technician, Quality Assurance

## 6.23. Crisis management and recall (SOP 23)

### **Purpose:**

Tracing and tracking of all identified unsafe product which can be harmful. Using an effective system for product recall.

**Definition recall:** withdrawal of a product from the marketplace by manufacturer, supplier, health authority or customer due to minor violation that is not subject to legal action; used in situations where there is a reasonable probability that the use of a product will cause serious health consequences.

### **Scope:**

all identified unsafe products

### **Procedure:**

Any found or reported deviations on products which might cause a health issue for consumers start the product recall process:

#### 1. Analysing the problem

- Which meals?
- Where are the meals now?
- How many?

#### 2. All responsible DO & CO staff listed below have to be informed and instructed:

- QA Responsible
- Headchefs
- Production Manager (if applicable)
- Purchase Responsible
- Controller
- Responsible Catering/Event Manager

Quality Manager and Project Management Team have to be informed. Decision of further information flow is done by this team.

Depending on the type of incident, local authorities, insurance companies or DO & CO law department has to be informed. This has to be decided by the Management Team.

#### 3. Setting corrective actions

- block risk items



- perform microbiological examinations if needed
- inform client, supplier, consumer

#### 4. Analysing the source of the problem

- which components, ingredients, personnel or auxiliary materials could have caused the incident?
- follow-up of incident and further corrective actions as needed

#### **Monitoring:**

mock recall

#### **Documentation:**

-

#### **Responsibility:**

all responsible staff

#### Examples which may lead to a product recall:

- Presence of a microbiological pathogen
- Food product contaminated with a toxic chemical
- Presence of an undeclared allergen
- Glass or metal fragments in food
- Unsafe pesticide residues
- Labelling violations
- Mould or yeast contamination
- Spoilage

## 6.24. Complaint management (SOP 24)

### **Purpose:**

To have a structure for collecting and analysing internal and external complaints which affect food safety and set responsibilities and target times for customer and internal information.

### **Scope:**

all complaints concerning food safety and hygiene received from customers, consumers, authorities and/or DO & CO staff

### **Procedure:**

#### Following data has to be collected:

- claims of customer, consumer or authorities regarding food safety
- deviations as a result of microbiological examinations and test results

#### Complaint management

- All complaints have to be sent to Quality Assurance immediately after receipt.
- On site investigation, together with the involved departments, should be performed to find the source of the complaint.
- In case of food poisoning, all products which might be affected have to be blocked and marked with a sign "do not use". If needed, a sample will be analysed.
- Additionally the number of already served meals has to be investigated. See SOP 23 Crisis Management and Recall.
- The probability of a control by the local sanitary/hygiene authorities is very high. See SOP 29 External Audits.
- All documents related to complaints have to be stored by QA.

### **Monitoring:**

-

### **Documentation:**

complaint claim report

### **Responsibility:**

Event management, Quality Assurance

## 6.25. Continuous improvement and information flow (SOP 25)

### **Purpose:**

Create and maintain the structure for continuous improvement of the food safety system.

### **Scope:**

food safety system

### **Procedure:**

#### DEBRIEFINGS

After each event all information and deviations are presented to the Event Manager and written down in an action plan. Comments of the event team are added to the report.

#### EVALUATION OF RELEVANT DATA FOR FOOD SAFETY

- Internal audit scores
- Authority reports
- Customer claims
- Microbiological test results

This data has to be collected and evaluated by the Quality Assurance department.

#### SETTING MEASURABLE TARGETS FOR FOOD SAFETY

Quality Assurance department shall set measurable targets for the following criteria:

- Internal audit scores
- Authority reports
- Number of customer claims
- Microbiological test results

#### REVIEWING THE FOOD SAFETY SYSTEM

All relevant data for food safety (as listed above) has to be evaluated for all events. This is done by the QA. Deviations are to be discussed and measurements for improvements introduced.

#### CONTINUOUS TRAINING

For each international event staff training should be done before the first assignment and repeated on a yearly basis. Effectiveness of the training shall be consistently followed-up. Additional to the staff training, internal trainings for all QAs should be carried out on a regular basis.

**PREVENTIVE MEASURES**

Based on evaluation of relevant data, preventive actions for improving the system should be planned and realised and their effectiveness monitored.

**CORRECTIVE ACTIONS**

For all deviations on CCPs and SOPs of this standard corrective actions have to be planned and realised as quickly as possible. The effectivity of the actions has to be evaluated.

**INFORMATION FLOW**

For implementation and maintenance of the food safety system, the information flow is of major importance. All team members shall be kept on the same information and training level. The communication via mailing lists is recommended. Regular meetings (jour fixe) shall be held.

**Monitoring:**

-

**Documentation:**

reports from trainings

meeting minutes

**Responsibility:**

Quality Assurance

## 6.26. Handling of overproduction (SOP 26)

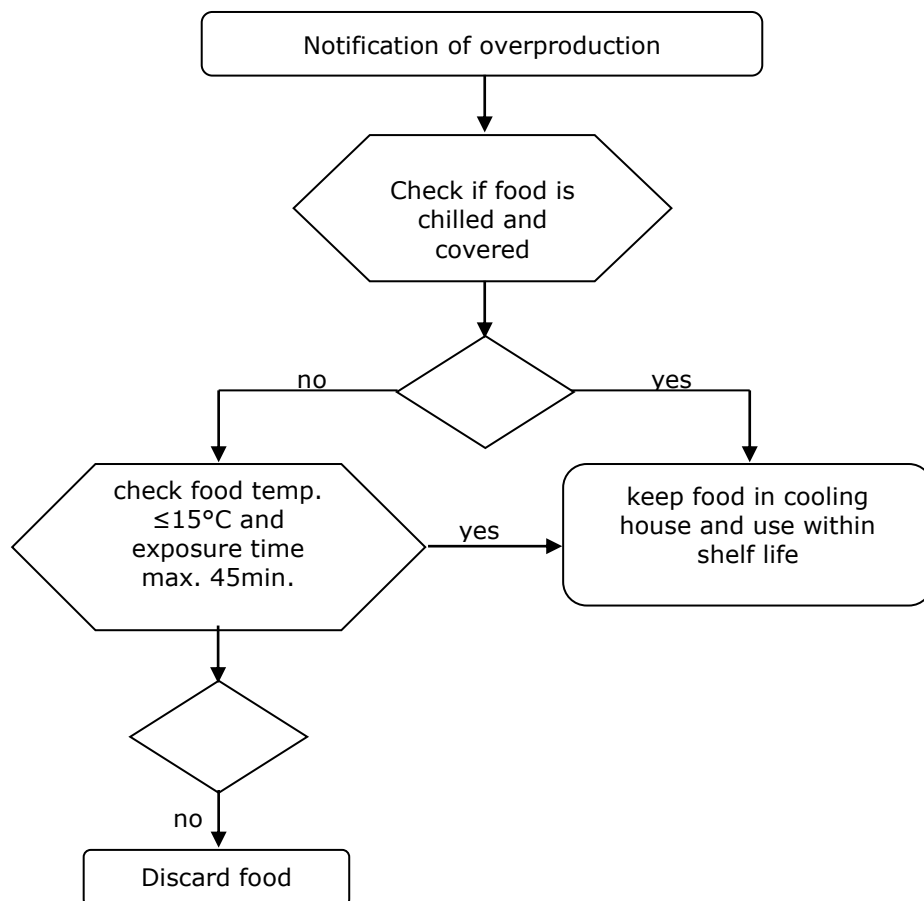
### Purpose:

To ensure food safety for food that was not used.

### Scope:

all cooled and covered food which returns from buffets, satellite kitchens or similar places; open packages in the production area and storage which are left after the end of an event

### Procedure:



Food that has already been offered at buffets must be discarded!

### Monitoring:

check temperature of food and time of presentation

### Documentation:

-

### Responsibility:

Event Management, Headchefs, Quality Assurance

## **6.27. Validation of the food safety system (SOP 27)**

### **Purpose:**

To ensure that the established food safety system effectively controls food risks.

### **Scope:**

food safety system for International Event Catering

### **Procedure:**

Validation of the food safety system shall be followed up by food safety working group in their periodical review meetings. Regular risk assessment shall be carried out as validation tool.

For each event any changes in the process flow, introduction of new food products, application of new techniques etc. shall be assessed and necessary modifications in the system shall be done accordingly.

Following information has to be collected prior to the review:

- updated PAX-Info
- updated kitchen plans
- audit results (audits by authorities and internal audits)
- risk assessment form

### **Monitoring:**

regular risk assessment

### **Documentation:**

risk assessment form

### **Responsibility:**

Quality Assurance department

## **6.28. Internal Audits (SOP 28)**

### **Purpose:**

Check if the established food safety system is effectively implemented.

### **Scope:**

all procedures of the food safety system

### **Procedure:**

Internal audits have to be planned and realised for each international event by QA –during set up, on the first day of production and in case of non-conformities or process changes.

Internal Audits have to be realised according to the audit checklist.

Identified non-conformities and areas for improvement shall be discussed with the Event Manager.

Corrective actions are communicated to the relevant departments, shall be immediately implemented and verified by QA.

### **Monitoring:**

-

### **Documentation:**

internal audit checklist

### **Responsibility:**

Quality Assurance

## 6.29. External audits (SOP 29)

### **Purpose:**

Results of external audits affect the success of an international event. External audits are performed by authorities. They can be announced or unannounced.

### **Scope:**

all procedures of the food safety system

### **Procedure:**

#### **1. UNANNOUNCED AUDITS**

- Identity card of visitor(s) has / have to be shown.
- The Event Manager or his deputy and the QA on site have to perform the audit with the visitor(s).
- All responsible staff have to be informed as quickly as possible (including event organiser).
- All responsible staff have to verify in a cross check that all employees work according to this standard and national legislation.
- If samples are taken by the visitors, cross checks have to be done. Samples have to be stored frozen until receipt of results.
- All written reports and forms have to be sent to the QA. Originals have to be stored at DO & CO headquarters for 2 years.
- Impressions and results of the audit have to be reported in written form.
- Corrective actions in case of deviations have to be planned with the QA.

#### **2. ANNOUNCED AUDITS**

- An announced audit has to be managed by the QA in charge of International Event Catering.
- As soon as the audit is announced, the QA has to be informed.
- The audit shall be prepared thoroughly by the QA in cooperation with the Event Manager and the responsables of each department.
- All relevant information and specific local requirements have to be collected prior to the audit.
- Following steps see 1.

### **Monitoring:**

-

### **Documentation:**

audit report

### **Responsibility:**

Quality Assurance, Event Management



## 7. Pathogens in food

### 7.1 **Campylobacter spp**

Occurrence: poultry, meat, naturally found in animals

Symptoms: fever, diarrhea, stomach ache (between 2 and 5 days after ingestion)

Avoidance: strict segregation between raw and cooked food, good personal hygiene

### 7.2 **Clostridium perfringens**

Occurrence: on foodstuffs, in soil and excrements.

ATTENTION: Able to form spores when exposed to unfavourable conditions that germinate when food cools down slowly.

Symptoms: stomach cramps, diarrhea (7 to 15 hours after ingestion)

Avoidance: fast cooling down (blast chilling) or immediate consumption of hot food

### 7.3 **Escherichia coli**

Occurrence: intestines, soil or dirty water

ATTENTION: A relatively small number of bacteria is sufficient.

Symptoms: diarrhea, intestinal inflammation, kidney failure, etc. (between 2 and 10 days after ingestion)

Avoidance: good personal hygiene, minced meat must be thoroughly heated

### 7.4 **Listeria monocytogenes**

Occurrence: plants, soil, sewage, raw milk, soft cheese, smoked fish

ATTENTION: Pregnant women, children, elderly and immunodeficient people are more susceptible to listeriosis.

Symptoms: stomach cramps, diarrhea, brain inflammation, miscarriage, etc. (up to 10 weeks after ingestion)

Avoidance: good personal hygiene, strict segregation between raw and cooked food

### 7.5 **Salmonella**

Occurrence: mainly in poultry, fresh eggs and minced meat, but also in humans, all slaughtered animals, raw milk, on unwashed vegetables, on insects

Symptoms: nausea, vomiting, headache, diarrhea (6 to 72 hours after ingestion)

Avoidance: no cross contamination, good personal hygiene, strict separation of raw and finished products, heating above 75°C

### 7.6 **Bacillus cereus**

Occurrence: soil, rice

ATTENTION: Able to produce toxins and form spores that survive cooking and germinate when food cools down slowly.

Symptoms: nausea, vomiting, diarrhea (1 to 16 hours after ingestion)

Avoidance: fast cooling down (blast chilling), good personal hygiene, strict segregation between raw and cooked food

### 7.7 **Staphylococcus aureus**

Occurrence: on the skin, in purulent wounds, in the nose and throat

ATTENTION: Able to produce heat-resistant toxins.

Symptoms: vomiting, diarrhea, Toxic Shock Syndrome, etc. (within hours after ingestion)

Avoidance: frequent hand washing, gloves, no coughing or sneezing on food