

**FINNISH FOOD AGENCY**

**Cleaning programme and programme for the inspection of cleanliness in operations affected by food hygiene legislation.**

**662/32/03**

**27/2/03**

**Coming into force 1/5/05**

**CONTENTS**

1. General
2. Cleaning programmes and cleanliness inspection programmes in self-regulation
3. Cleaning and disinfection
  - 3.2 Hygiene areas
  - 3.3 Cleaning
    - 3.3.3 Water quality and temperature
    - 3.3.4 Cleaning instructions
  - 3.4 Disinfection
    - 3.4.1 Chemical disinfection
    - 3.4.2 Physical disinfection
  - 3.5 Plant cleaning and disinfection
    - 3.5.1 Cleaning and disinfection
    - 3.5.2 Cleaning during operation
    - 3.5.3 Regular Deep cleaning
    - 3.5.6 Cleaning during problem issues
    - 3.5.7 Cleaning of Special items/areas
4. Cleaning arrangement
  - 4.1 Description of Cleaning and Disinfection
  - 4.2 Cleaning thoroughness and cleaning frequencies
  - 4.3 Washing and disinfectant directory
5. Cleaning and disinfection monitoring procedures
  - 5.1 Visual monitoring
  - 5.2 Microbiological monitoring
    - 5.2.1 Taking samples
    - 5.2.2 Results
6. Cleaning inspection programme arrangement
  - 6.1 Planning visual monitoring and verification
  - 6.2 Microbiological cleanliness inspection planning and verification

Appendices

- 1 Legislation directory
- 2 Cleaning and disinfection after operation
- 3 Cleaning during operation
- 4 Deep cleaning
- 5 Cleaning and disinfection of special items/areas
- 6 Cleaning frequencies and cleanliness thoroughness
- 7 Cleaning and disinfection directory
- 8 Visual cleanliness inspection planning
- 9 Visual monitoring verification
- 10 Microbiological monitoring planning
- 11 Microbiological monitoring verification

## 1 General

This guidance has been developed to assist approved plants comply with hygiene legislation by planning self regulatory cleaning and cleanliness inspection programmes. The guidance can also be agreed to be used in relation to health protection legislation for food area cleaning and cleanliness inspection programmes. The guidance is intended to be used primarily by those plants in which cleaning using water is possible.

Appendices to the guidance (Appendices 2 – 11) are forms that the plant can use to assist in the development of cleaning and cleanliness inspection programmes. The forms can also be adapted as necessary and used as appropriate to combine the organisation of plant activities and self regulation.

## 2 Cleaning and Cleanliness Inspection Programmes in Plant Self Regulation

The hygiene of food products of animal origin are regulated by section 21§ of Finnish Hygiene legislation (1195/1996, *hygiene law*) which require plant self regulation and verification.

Frequently the [land and forestry] Ministry issues legislation (list in Appendix 1) in which plant hygiene self regulation is required to include cleaning and cleanliness inspection programmes, which must be approved by official authorities. These programmes impact on plant operation and the programmes must be modified/customised as appropriate. For example, in self regulation, results may show changes required in equipment operation, or modification may be necessary to meet legislative requirements. Additionally, in abattoirs, slaughterhouses and cutting plants cleanliness must be proven via Ministry feed surface samples, cleanliness samples and EHEC-samples in accordance with regulations about constructions, equipment and tool surface cleanliness tests (7/EEC/2002).

Plants must keep records of cleaning and cleanliness inspection programme verification and tests, measurements and explanations as well as the completion of corrective actions, announcements to official authorities and confirmation of management. Records must be accessible to official authorities and must be kept for at least two years.

The efficacy of plant cleaning and cleanliness inspection programmes must be verified at least annually. The plant's own personnel or external authorities can be used for this verification.

## 3 Cleaning and Disinfection

### 3.1 General

The need for cleanliness of plants must be taken into account in the planning of, for example, (hygiene) areas, work stations and equipment siting as well as material and equipment choice. Constructions and surfaces must be easy to keep clean and made from durable material. In addition personnel hygienic practices also assist in maintaining the cleanliness of plants.

In plants handling raw materials as well as production processes there are different requirements for maintaining cleanliness. Raw materials or products possibly containing pathogens may contaminate handling areas, which may increase cleaning requirements and affect the choice of detergent.

### 3.2 Hygiene Areas

Hygiene areas can be categorised as follows:-

#### High hygiene area

An area in which unprotected products that are not intended to be heated before consumption are handled or stored. The handling of these types of products requires particularly high hygienic production standards and hygiene organisation. These types of areas are for example meat preparation and cold smoked fish slicing areas as well as milk preparations production areas and packing areas.

#### Good hygiene area

Areas in which unprotected raw materials or products, which are to be heated before consumption are handled or stored. High cleanliness responsibility and operatives use of good hygienic working practices. Meat slicing belongs in this area.

#### Neutral Hygiene area

An area in which packed or otherwise protected raw materials or products are handled or stored, such as prepared product holding and despatch areas. Offices, social spaces, packaging stores and cleaning materials stores.

#### Dirty area

Waste rooms and particular technical areas.

### **3.3 Cleaning**

#### 3.3.1 General

Factors affecting cleaning efficacy: detergent properties, quality of water used and the temperature, detergent contact time and efficacy of mechanical cleaning.

If an element is weak, for example insufficient mechanical cleaning or the wrong washing solution temperature, a good cleaning result will not be obtainable in the time allotted. Cleaning in between chemical cleaning needs to be arranged.

#### 3.3.2 Detergent

Detergent improves the dirt-removing properties of water.

The choice of detergent is affected by usage method, the hardness of the water and its iron content as well as the type of soiling. In addition, detergents have to be chosen so that they affect the surface of the equipment as little as possible. Each cleaning and disinfection product description describes properties that could damage surfaces. Detergent quantity has to be in accordance with the manufacturer's instructions.

#### Detergents use the following active ingredients

Alkalis (e.g. sodium and potassium hydroxides and carbonates, phosphates, silicates and amines) raise the pH of the washing solution. In alkali washing the alkali breaks down proteinaceous material and grease and improves the cleaning efficacy of surface-active agents. The pH normally used in a foam wash is 10, 1-11. Weak alkalis, e.g. used in dishwashing, use pH 8, 1-10. Strongly alkaline washing solutions (pH>11) even destroy

microbes. Strongly alkaline detergents are used in special circumstances such as the washing of smoke boxes.

Acids (e.g. phosphoric and nitrogen-based acids, organic acids) lower the pH of washing solutions and remove scale and precipitate. The usual acid material pH is in the area of 2-4.9. Strongly acid detergents (pH<2) are used in closed systems/equipment for example.

Active ingredients of detergents also include surface-active ingredients or 'tensides' and chelators. Tensides reduce the surface tension and so improve the wetting ability and penetrate between the surface and the dirt/soiling, so loosening the dirt. Chelation agents (phosphates, phosphonates, EDTA or NTA) soften the water by binding calcium and magnesium compounds, which affect water hardness.

### 3.3.3 Water quality

Potable water is to be used to clean equipment.

The properties of the water to be used need to be taken into account, because, for example, hard or iron-containing water requires more detergent than soft water.

The required water temperature depends on the washing or disinfection conditions, wash and disinfection ingredients as well as wash and disinfection method. Water temperature quickly is reduced by the cold contact surface or disinfection time, which has to be taken into account by the selection of suitable adjuncts.

### 3.3.4 Cleaning Methods

The use of mechanical cleaning by brush or cloth needs to be a part of washing. Attached dirt must always be cleaned mechanically.

High-pressure washing is not a recommended procedure because it erodes surfaces and can move dirt from place to place, e.g. as debris or aerosol.

Low-pressure washing in which 15-20 bars pressure is used, is the recommended washing procedure. In low pressure washing less dirt-containing aerosol is formed than in high-pressure washing.

CIP (Cleaning in place) refers to a technology whereby the plant can be cleaned without being dismantled. This requires the use of suitable cleaning and disinfection materials.

## 3.4 Disinfection

### 3.4.1 Chemical disinfection

In chemical processes microbes are destroyed by disinfectants. The microbe destruction effect depends on the ingredients of the disinfectant, the strength of solution used, the correct temperature, sufficient contact time, pH, water hardness, the type and amount of soiling, the surface material and the microbes that are to be destroyed.

Each time disinfectant is used a new solution must be made up and the disinfectant must not be used undiluted. The disinfectant manufacturer's instructions on solution preparation must be followed.

Many washing ingredients contain disinfection agents, which however are not compatible with different disinfectants. The mixing of disinfectants during washing reduces efficacy and therefore washing after disinfection must be carried out.

Because microbes become resistant to disinfectants, it is recommended that disinfection agents are changed periodically. If pathogens are proven to be present in a plant, disinfectants must be accordingly chosen to destroy the pathogen/s.

Disinfectants must always be rinsed away so that no traces remain on the surface.

Disinfectants use the following active ingredients:

Alcohol-based disinfectants generally use ethanol and isopropanol. They are suited to disinfection during operating hours as well as disinfecting easily damaged surfaces.

Anionic acids (anionic surfactants and acid) are rarely used. They can be used in acid washing as well as disinfection. They remove mineral deposits.

Carboxylic acid does not foam and is therefore well suited to use in CIP procedures. It can be used in acid washing as well as in disinfection.

Chlorine is suited to the disinfection of tools, flat surfaces and floors. Chlorine is effective and fast acting, but corrodes some metals and plastics. Chlorine cannot be used continually because microbes can become resistant to it. A solution temperature above 40°C cannot be used because it evaporates chlorine.

Quaternary ammoniums (quats) are effective against bacteria and moulds and do not damage surfaces. They are used for example for the disinfection of cold flat surfaces.

Peracetic acid is an effective, biofilm-removing compound. However it frequently damages surface materials.

3.4.2 Physical Disinfection

Physical disinfection procedures are for example by using hot water, steam, air or oil and UV light or ultrasound.

The use of hot air in combination with sufficient contact time is the most effective method of destroying microbes. Some tools can be disinfected in hot ovens.

The use of hot water is more common a method than the use of hot air. In physical disinfection water temperature must be at least 80°C, and the contact time about 10 mins. Surface disinfection using hot water can be carried out in special areas.

3.5 Plant cleaning and disinfection

Plant disinfection comprises both daily and less frequently required cleaning and maintenance organisation. These types of surfaces and plant, which can contaminate food, must be cleaned at least daily. Cleaning applies to all areas of the factory as well as loading bays and external areas.

3.5.1 Cleaning and disinfection after work

Precleaning and rinsing

Loose soiling is removed from flat surfaces by scraping and from floors by using a spatula, for example. Machines and plant must be disassembled for cleaning. The design of the machine parts determines how the smallest parts or the machine are to be disassembled. Components that cannot withstand washing are to be protected during cleaning under clean covers. Surfaces and plant are to be rinsed with cool water.

#### Washing

Detergent is to be spread by foam spray hose to clean surfaces and loosen fragments and let the foam act according to instructions. The foam must not be allowed to dry. The contact time for the foam with depends on the product in which the surface is to be in contact and as required - other surfaces are cleaned with an abrasive pad in which there is washing solution. Surfaces are washed clean (visual inspection) using low-pressure water.

Wherever possible there should be a period of an hour after washing before disinfection, so that aerosols and dirt can fall to the surface, to be disinfected afterwards.

#### Disinfection

Disinfectant is applied directly or by misting, for example using a pressure mister. Disinfectant is washed away using water.

Protected plant covers are removed and surfaces beneath disinfected with an alcohol-containing solution.

The drying of spaces and surfaces is best done using ambient conditions.

### **3.5.2 Cleaning During Operations**

During working hours general organisation and cleanliness is maintained such that foods are not contaminated. The use of water or other splashing cleaning is not permitted if there is the danger that unprotected foods will be contaminated. If the use of water during work is unavoidable foods and open plant must be protected from splashing.

Production areas and background operations are cleaned as required during operation as well as in accordance with special cleaning requirements. Floors and surfaces can be cleaned with a squeegee or vacuum cleaner and cutting surfaces can be turned or changed. Worktables and plant can also be cleaned in between changes of raw materials.

### **3.5.3 Regular/Deep cleaning**

Deep cleaning is to be carried out in the production area in a planned way.

With deep cleaning, equipment is dissembled into smaller parts than in daily cleaning. In deep cleaning washing is firstly with alkaline detergent, after which is used acidic detergent and finally a new alkaline wash. Mechanical washing is done carefully with abrasion in accordance with detergent contact time.

Disinfection is carried out as in daily washing. Disinfection can also be done manually, for example with hot water or steam.

### **3.5.4 Cleaning during problem situations (sanitising cleaning)**

Sanitising cleaning is carried out when a plant is contaminated by pathogenic microorganisms. These microorganisms include for example Salmonella and Lm.

Sanitising cleaning always requires careful planning and explanation. Solving microbiological problems in plant sanitising and cleaning is always done with the help of enforcement officials and also requires the input of other specialists.

During sanitising cleaning, plant or the area being cleaned cannot be used. Sanitising cleaning requires the complete dismantling of plant into as small components as possible, particularly effective mechanical cleaning, hot handling and other actions depending on quality. Disinfectant strength and contact time is increased. Plant is left to dry sufficiently in between different treatments. Surface cleanliness and product samples are taken after sanitising cleaning in order to prove the eradication of the problem. Sanitising cleaning also relates to production conditions as well as the careful thorough cleaning of plant and surfaces and correction of possible defects.

#### **Biofilm**

Biofilm is a layer of microorganisms attached to a surface, in which microbes are kept alive by a small amount of trapped water and nutrients. Dirt, uneven surfaces and porosity contribute to the formation of biofilm from organic materials. Biofilms on processing equipment and pipes quite easily contaminate food touching these surfaces and noticeably increase food hygiene risks.

Removal of a biofilm requires effective mechanical cleaning as well as washing and disinfection. Biofilm formation can be avoided by the choice of construction material, good plant building and planning as well as by using correct cleaning and disinfection.

### **3.5.5 Cleaning under Special Circumstances**

The cleaning of plant has to be planned taking into account its particular cleaning and disinfection instructions including air changes, water and waste water pipes, electrical equipment, leads, roofs and buildings above, plant and cupboards coverings as well as circuit breakers and electrical equipment surrounds.

Important cleaning points are for example packing and slicing as well as conveyor belts. Conveyor belts have to be cleaned on both sides of the rollers. In addition, conveyor belt rollers have to be cleaned carefully. Slicing machines' blades have to be cleaned mechanically each washing cycle. Slicing machine blades can be cleaned and disinfected also during use but in that case however the surfaces have to be left to dry.

## **4. Cleaning instruction provision**

Cleaning and disinfection requirements for rooms and plant have to be described in cleaning instructions. In addition, cleaning frequencies, materials and tools have to be described. Cleaning and disinfection chemicals used in a plant must be included in a directory together with instructions for their safe use. Transportation advice/ors and other transport tools such as forklift trucks must undergo regular washing and disinfection as well as periodic deep cleaning, this being included in the cleaning programme.

The cleaning programme must name the person responsible for cleaning and disinfection and the backup person's names. If cleaning is by a contractor, the person responsible for the plant and cleaning programme enforcement must be named.

#### **4.1 The description of Cleaning and disinfection (Appendices 2, 3, 4, 5)**

The cleaning programme must describe the cleaning and disinfection of the plant's areas, fittings, equipment, plant and tools. In addition, special issues, for example waste utensils, pipe systems, air change and electrical equipment have to be taken account of. Areas and items can be included in the same description. The description covers daily basic activities as well as actions after work, deep cleaning and the planning of cleaning and disinfection during problem situations and special circumstances. It should include decontamination of buildings or the cleaning and disinfection of plant in certain special circumstances. The tools to be used during cleaning and disinfection have to be specified.

The description of good quality cleaning and disinfection work instructions can also be used in self-regulation. Cleaning and disinfection instructions should be easily accessible by staff, for example in a plastic cover near to the cleaning station, so that they are easy to check. There should also be machine, plant or tool cleaning instructions from the manufacturer. The use of cleaning and disinfectants requires instructions, which are confirmed to be correct and that their residual products do not come into contact with product.

#### **4.2 Cleaning and cleaning times (Appendix 6)**

The cleaning programme must describe the cleaning intensity and cleaning frequencies for rooms/areas, building, plant, tool and special circumstances. In addition, deep cleaning frequencies are defined.

#### **4.3 Cleaning and disinfectant Directory (Appendix 7)**

Cleaned and disinfection materials to be used in a plant must be listed in a directory/catalogue/list, in which their usage instructions are given. Cleaning agents and disinfectants must be appraised by the Food Agency and safe usage instructions given.

### **5. Cleaning and Disinfection Monitoring Results Records**

The results of cleaning can be monitored by visual, microbiological or chemical methods. The effectiveness of cleaning and disinfection can be determined by examining the cleanliness of surfaces of building, plant, equipment and tools/utensils. Visual evaluation and chemical results must be obtained but microbiological test results take several days. Microbiological test results can be used to confirm visual cleaning assessments.

#### **5.1 Visual Monitoring**

Surfaces, plant and tools cleaned daily also have to be checked/inspected visually daily before work commences. During working hours monitoring to be done has to focus on those surfaces, plant and items that are in direct contact with food. More rarely cleaned surfaces, plant and tools visual monitoring has to be planned so that the whole plant is monitored.

#### **5.2 Microbiological Monitoring**

##### **5.2.1 Sampling**

Sampling is carried out to monitor cleaning and disinfection and ensure that the best possible cleaning results are obtained. Otherwise, microbiological monitoring may discover the appearance of potential pathogens in plants.

Results can confirm comparability/equivalence and detect possible changes of situation when comparing the same parameters.

### **5.2.2 Investigation Methods**

Companies should use such cleanliness investigation methods that are simple to confirm, but which however give a sufficiently trustworthy picture of the cleanliness level of surfaces after cleaning and disinfection. It is useful to, for example, use the total count method that gives a picture of the total hygiene level. In this method the evaluation of the result is based on the use of a model chart. In addition, in the microbiological monitoring of cleanliness pathogens can be tested for. Companies should, where necessary define applicable limit values according to the investigation method.

Surface cleanliness samples are taken by contact plate methods or surface swabbing methods.

In contact plate methods the sample is taken by putting the growth medium in contact with the surface to be investigated. This method best suits smooth even surfaces. The method is simple, does not require a lot of experience by the sampler, and is sufficient for the monitoring of plant surface hygiene. In this method contact plates, several different contact strips or growth media films are used.

In surface swabbing methods the sample is taken by swabbing the sampling area with, for example, cotton swabs or cloths. The sample can be transferred directly onto the growth medium or transported to the laboratory to be cultured. The surface swabbing method especially suits the sampling of surfaces that are difficult to sample. When correctly performed this method is usually more accurate than other methods used for the investigation of surface cleanliness. Correct use of this approach requires good knowledge of the method, cultivation usually in a laboratory and evaluation of the results.

Chemical methods can also be used in the investigation of surface cleanliness. They are for example the luminescence method, which is based on light given out by living cells as well as a protein test, where protein-containing dirt left on surfaces after cleaning is investigated.

Those carrying out microbiological investigations should have sufficient knowledge and qualifications to do so.

## **6. How to do a Cleaning Inspection Programme**

The cleaning inspection programme is developed and performed for every room and machine, also taking into account special items/areas, such as cold/chilled spaces and equipment, electrical switches, drains, work and cleaning tools. In addition the monitoring of the cleanliness of transport vehicles has to be included in the inspection programme.

It must be noted in the cleaning inspection programme who is responsible for the visual evaluation, performance of microbiological monitoring, corrective actions and their approval.

### **6.1 Planning and Carrying out of Visual Monitoring (appendices 8 and 9)**

In the planning of visual inspection daily and less frequently checked items/areas must be defined.

The limit value for visual monitoring is the detection of visible dirt. All items/areas have to be so clean that no visible dirt can be detected. Required corrective actions are described. The nature

and urgency of corrective actions depend on the item/area in question. Corrective actions can for example be immediate cleaning, cleaning within a certain period of time as well as modifying the cleaning programme or how it is carried out.

Visual inspection has to be documented (appendix 9). The time of evaluation, the operative and the result are documented. Corrective actions must be closed off. The operative carrying out corrective actions must document that they have closed them off and when. The named responsible person must still confirm and document that the corrective action has been completed satisfactorily.

## **6.2 Planning and Carrying out of Microbiological Cleanliness Checks (appendices 10 and 11)**

When the frequency of sampling and sample number in the plant are defined the nature of operations are taken into account, together with the products produced, the production volume, and the results of earlier cleanliness checks. The plant must also comply with requirements of legislation (7/EEO/2002).

Defining sampling points, sampling frequency and sample numbers will be easier if the areas of the plant have been divided into groups requiring different hygiene levels. Samples should be taken especially from areas and surfaces which cause the biggest risk of contamination of foodstuffs.

If in microbiological monitoring of the hygiene levels problems are identified, additional samples are taken, until it can be seen that the problem has been resolved. If investigation results are continually good, the sampling plan can possibly be modified.

Microbiological cleanliness checking programmes define sampling points and frequencies, use methods and applied limit values, documentation of results, information on results and corrective measures (appendix 10). If visual inspection identifies dirt, it should be understood without microbiological evaluation that cleaning has been performed poorly.

Microbiological cleaning checks must be documented (appendix 11). The date of investigation, the operative and result are documented. Required corrective measures must be actioned. The operative carrying out corrective actions documents that they have been completed and when. The named responsible person must still confirm and document that the corrective action has been performed acceptably.

## **APPENDIX 1**

List of Ministry legislation requiring cleaning and cleanliness programmes in plant self regulation

Depots (MMM<sub>a</sub> 28/EEO/2001) I 12, appendix 1, chapter 2

Meat hygiene (MMM<sub>a</sub> 16/EEO/2001) J 14, appendix 1, chapter 3

Poultry meat hygiene (MMM<sub>p</sub> 10/EEO/1999) J 21, appendix 1, chapter 3

Reindeer meat hygiene (MMM<sub>p</sub> 22/EEO/1999) J 23, appendix 1, chapter 3

Farmed game and rabbit meat hygiene (MMM<sub>p</sub> 21/EEO/1999) J 25, appendix 1, chapter 2

Wild game meat hygiene (MMM<sub>p</sub> 24/EEO/1995) J 26, appendix 1, chapter 3

Minced meat and raw meat preparations hygiene, (MMM<sub>p</sub> 20/EEO/1998) J 28 appendix 1, chapter 3

Meat preparations hygiene (MMM<sub>p</sub> 23/EEO/1999) J 30, appendix 1, chapter 3

Milk hygiene (MMM<sub>a</sub> 31/EEO/2001) K 10, appendix 1, chapter 3

Fish hygiene (MMM<sub>a</sub> 16/EEO/2000) N 4, appendix 1, chapter 2

Foods using snails and frogs (MMM<sub>a</sub> 17/EEO/2000) N 7, appendix chapter 1

Egg preparations (MMM<sub>p</sub> 11/EEO/95) N 12, appendix chapter 3

Egg hygiene (MMM<sub>p</sub> 4/EEO/98) N 13, appendix 1 chapter 3

**APPENDIX 2**

Approved, date. \_\_\_\_-\_\_\_\_-\_\_\_\_, \_\_\_\_\_(plant representative)  
 date. \_\_\_\_-\_\_\_\_-\_\_\_\_, \_\_\_\_\_(control authority)

**CLEANING AND DISINFECTION AFTER PRODUCTION**

Room area	Hygiene area
<b>Operative</b>	
<b>Precleaning</b>	
<b>Disassembly of machinery, cleaning and protection of items that cannot withstand washing</b>	
<b>Pre-rinse</b>	
<b>Washing</b>	
<b>Settling time</b>	
<b>Disinfection</b>	
<b>Rinsing</b>	
<b>Removal of protective covers and disinfection of protected items</b>	
<b>Drying</b>	

Completion instructions:

The form is used to describe in as much detail as possible, what is to be cleaned and disinfected, how and by using what tools, as well as indicating who does the cleaning and disinfection.

**APPENDIX 3**

Approved, date. \_\_\_\_-\_\_\_\_-\_\_\_\_, \_\_\_\_\_(plant representative)  
date. \_\_\_\_-\_\_\_\_-\_\_\_\_, \_\_\_\_\_(control authority)

**CLEANING AND DISINFECTION DURING PRODUCTION**

Room area	Hygiene area
<b>During Production</b>	
<b>During a break</b>	
<b>In special circumstances</b>	

Completion instructions:

The form is used to describe in as much detail as possible, what is to be cleaned and disinfected, how and by using what tools, as well as indicating who does the cleaning and disinfection.

**APPENDIX 4**

Approved, date. \_\_\_\_-\_\_\_\_-\_\_\_\_, \_\_\_\_\_(plant representative.)  
 date. \_\_\_\_-\_\_\_\_-\_\_\_\_, \_\_\_\_\_(control authority)

**DEEP CLEANING**

Room area	Hygiene area
<b>Operative</b>	
<b>Prewash</b>	
<b>Disassembly of machinery, and the cleaning and protection of objects that cannot withstand washing</b>	
<b>Pre-rinsing</b>	
<b>Washing</b>	
<b>Rinsing</b>	
<b>Settling time</b>	
<b>Disinfection</b>	
<b>Hot handling</b>	
<b>Rinsing</b>	
<b>Removal of protective covers and disinfection of objects that cannot withstand washing.</b> <b>Description</b>	

Completion instructions:

The form is used to describe in as much detail as possible, what is to be cleaned and disinfected, how and by using what tools, as well as indicating who does the cleaning and disinfection.

**APPENDIX 5**

Approved, Date. \_\_\_\_\_.\_\_\_\_.-\_\_\_\_, \_\_\_\_\_(plant representative)  
Date. \_\_\_\_\_.\_\_\_\_.-\_\_\_\_, \_\_\_\_\_(control authority)

**CLEANING AND DISINFECTION OF SPECIAL ITEMS/AREAS**

<b>Factory area:</b>
<b>Cleaning and disinfection of special items/areas:</b>
-
-
-

**Completion Instructions:**

The form is used to describe in as much detail as possible, what is to be cleaned and disinfected, how and by using what tools, as well as indicating who does the cleaning and disinfection.  
Special items/areas are, for example waste containers, cold areas, cold part/equipment, ventilation system openings, pipes, electrical equipment, the surroundings of electrical switches, vehicle.

**APPENDIX 6**

Approved, date. \_\_\_\_-\_\_\_\_-\_\_\_\_, \_\_\_\_\_(plant representative)  
 date. \_\_\_\_-\_\_\_\_-\_\_\_\_, \_\_\_\_\_(control authority)

**CLEANING FREQUENCIES AND CLEANING EFFICACY**

Room	(Hygiene area)	Cleaning efficiency and frequency	
		Ordinary	Deep cleaning
Walls: Lower portions			
Upper portions			
Doors			
Ceilings			
Upper constructions (list)			
-Roof beams/struts			
-Electric leads			
-Supporting pillars			
Windows			
Floors			
Stands			
Staircases			
Cupboards			
Surfaces (list)			
-			
-			
Equipment/Plant (list)			
-			
-			
-			
Tools (list)			
-			
-			
-			
-			
Special items/areas (list)			
-			
-			
-			
-			
Others			
-			
-			
-			

**Completion Instructions:**

The description of cleaning and disinfection must be made for each room. In this description 'room' means a single room or room group, which can be cleaned in the same way.

Work surfaces, equipment and tools in the room are to be listed.

Cleaning frequencies (once a day, as required, weekly, twice yearly) are specified for production area construction, equipment, tools and special items/areas according to their particular requirements.

Cleaning frequencies for ordinary cleaning and deep cleaning are specified (for example after production, during breaks in production, May and December).

Special items/areas are, for example, waste containers, cold/chilled areas, ventilation system openings, pipes, electrical equipment, the area surrounding fuse boxes, electrical switches, transport vehicles.



**APPENDIX 8**

Approved, Date \_\_. \_\_. \_\_, \_\_\_\_ (plant representative.)  
 Date \_\_. \_\_. \_\_, \_\_\_\_ (official authority)

**PLANNING OF THE INSPECTION OF VISUAL CLEANLINESS**

Room area	(Hygiene area)	Inspection prior to commencement of production	Inspection, Time	Inspection, Time
Walls: Lower portion				
Upper portion				
Doors				
Ceilings				
Upper constructions (listing)				
- Roof beams/struts				
- Electric leads				
- Supporting pillars				
Windows				
Floors				
Staircases				
Cupboards				
Surfaces (list)				
-				
-				
-				
-				
-				
Equipment/Plant (list)				
-				
-				
-				
-				
-				
Tools (list)				
-				
-				
-				
-				
-				
Special items/areas (list)				
-				
-				
-				
-				
Others				
-				
-				
-				

Surfaces washed daily are to be inspected on a daily basis before commencement of production.  
 Less frequently cleaned surfaces, equipment and tools are to be inspected in accordance with a planned programme.



**APPENDIX 10**

Approved, Date. \_\_\_\_\_.\_\_\_\_.-\_\_\_\_, \_\_\_\_\_(plant representative)  
 Date. \_\_\_\_\_.\_\_\_\_.-\_\_\_\_, \_\_\_\_\_(official authority)

**PLANNING MICROBIOLOGICAL MONITORING**

Room area	(Hygiene area)	Microorganism/ result	When	Microorganism/ result	When
Surfaces (list)					
-					
-					
-					
Equipment (list)					
-					
-					
-					
Tools (list)					
-					
-					
-					
-					
Special items/areas (list)					
-					
-					

The standard is defined according to results and specifications

Limits values are defined according to results and specifications

**APPENDIX 11**

Approved, Date. \_\_\_\_\_.\_\_\_\_.-\_\_\_\_, \_\_\_\_\_(plant representative)  
 Date. \_\_\_\_\_.\_\_\_\_.-\_\_\_\_, \_\_\_\_\_(official authority)

**VERIFICATION OF MICROBIOLOGICAL MONITORING**

Date. \_\_\_\_\_.\_\_\_\_ time \_\_\_\_ Operative \_\_\_\_\_

Microorganism/ result \_\_\_\_\_

Result evaluator \_\_\_\_\_

Room area	Hygiene area	Result	Action/ Corrective action	Corrective action operative and time	Approved
Surfaces (list)					
-					
-					
-					
Equipment (list)					
-					
-					
-					
Tools (list)					
-					
-					
-					
-					
Special items/areas (list)					
-					
-					

The sampler/checker, result evaluator, corrective action operative and person approving corrective actions initial and date the form.

Action: Repeat sample

Corrective actions:

1. Clean again immediately
2. Clean at a specified (noted) time
3. Clean in combination with deep cleaning
4. Sanitation [deep] cleaning
5. Modify cleaning programme

The operative checking visual cleanliness, the operative carrying out corrective actions and the person approving corrective actions are to initial and date the form.