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Hohenstein Hygienically Clean for Laundry Branch Management

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Introduction

This standard was developed by Hohenstein for facilities that are not washing manufactured textile goods and considers microbiological hazards during handling, transporting and distributing previously laundered textiles. The processes for washing, handling and transporting at separate laundry facilities are investigated to ensure good hygiene through hygienically clean audits and testing of those locations which process textiles on behalf of the branch location. The laundry must not present any danger to the consumer through microorganisms and thus through infections. In order for a branch location to be eligible for the Hohenstein Hygienically Clean Certification the facility providing the laundry service must already be certified. In the event that a branch location does perform laundry process on healthcare, food processing, or hospitality textile goods they must fully meet the requirements of the Hohenstein Hygienically Clean Standards for Food Processing, Hospitality, and Healthcare Textile Laundry Management.

Quality and Test Regulations

1 Area of Application

The quality and test regulations of Hohenstein Hygienically Clean for Laundry Branch Management apply to the professional handling, transport and delivery of manufactured textile goods consisting of healthcare, food processing and hospitality linens with its special hygienic requirements, and to the appropriate services provided by these institutions.

2 Definitions

2.1 Manufactured textile goods

are textile products which are manufactured, sewn or otherwise prepared in a market-ready condition to be passed on to the processor, trade or end-user.

2.2 Industrial linen care

is provided by laundries as opposed to private households.

2.3 Linen from healthcare, food processing & hospitality businesses

Are manufactured textile goods that are used during the production, treatment, and marketing of foodstuffs as well as hospitality locations such as hotels and resorts and linens used in examining, treating, nursing and tending patients in hospitals and in nursing and medical wards of homes; also including linen from medical laboratories and pathology departments as well as infected linen from other areas.

2.4 Rental linen

is linen that is not the property of the person using it.

2.5 Laundry machines

comprises machines used in the laundry facility for laundering, drainage, shaking, drying and finishing manufactured textile goods.

2.6 A washing cycle

for the purposes of this regulation, comprises an entire washing program according to the appropriate procedural rules.

2.7 Soiled linen area

comprises the acceptance, sorting, storage, labelling and transport as far as the washing machine.

2.8 Clean linen area

comprises the washing, drying, ironing, finishing and storage of the clean laundry, including all related activities, control systems and tests.

2.9 Disinfection

means the elimination or continual reduction of the number of causative agents to eliminate all risk of infection.

2.10 Disinfection of linen

for the purposes of this regulation, is carried out by means of disinfecting washing procedures.

2.11 Disinfection of hands

takes place using listed agents in the soiled linen area before washing hands and/or in the clean linen area after hands have been washed. When disinfecting the hands, the skin, fingertips and space between the fingers must all be made thoroughly wet. Wiping or washing the disinfectant off afterwards reduces its effectiveness and should be avoided. The disinfectant should be vigorously spread over the hands and rubbed in for a period of 30 seconds until it dries.

2.12 Abrasive disinfection

is a surface disinfection whereby the disinfectant is distributed on the surface using a scouring cloth, sponge or similar.

2.13 Spray disinfection

is a surface disinfection whereby the disinfectant is sprayed onto the surface to be disinfected.

3 Technical Rules & References

The regulations apply according to the specifications of the EPA Environmental Protection Agency lists:

Environmental Protection Agency (EPA), Lists A, B, C, D, E, and F: EPA registered disinfectants, sanitizers, and sterilants. www.epa.gov/oppad001/chemregindex.htm Selected EPA Registered Disinfectants. <http://www.epa.gov/oppad001/chemregindex.htm>

British Retail Consortium (BRC), Global Safety Standard for Food Products, version 8, section II, item 7.4.3 and 7.4.4

German Certification Association for Professional Textile Services, RAL-GZ 992/3 – Laundry from food processing plants, Boennigheim, Germany, 2011

German Institute for Standardization, DIN 10113-3: 1997-07: Determination of surface colony count on fitment and utensils in food areas - Part 3: Semiquantitative method with culture media laminated taking up equipment (squeeze method), Berlin, Germany, 1997

German Institute for Standardization, DIN 10514: 2009-05: Food hygiene- Hygiene training, Berlin, Germany, 2009

Guideline for Hand Hygiene in Health-Care Settings. Recommendations of the Healthcare Infection Control Practices Advisory Committee (HICPAC) and the HICPAC/ SHEA/ APIC/ IDSA Hand Hygiene Task Force. <https://www.cdc.gov/mmwr/PDF/rr/rr5116.pdf>

International Featured Standard Food (IFS Food) version 6, part 2, item 3.2.2.5 and 3.2.2.6

4 Quality Regulations

4.1 Branch location

4.1.1 Building area

4.1.1.1 Functional separation/personnel air shower

The branch must segregate "soiled" and "clean" laundry areas with functional separation between the two. There must not be commingling of clean and soiled products . Management systems must be in place to protect against contamination from soiled to clean areas.

4.1.1.2 Facilities for disinfecting containers

Facilities must be available for disinfecting soiled linen containers which may then be used for clean linen in the clean laundry area.

4.1.1.3 Social facilities

It must be possible to keep food or drink in the common room or break room. Food and drink (other than water should not be permitted around clean laundry.

4.1.1.4 Sanitary facilities

There must be facilities for cleaning hands. Separate male and female toilets should also be available.

4.1.1.5 Ventilation

There must be an effective ventilation to protect against the spread of germs from the soiled laundry. An exchange of air from soiled to clean laundry areas is not permitted. Special attention must be paid to all procedures for reducing the germ content of air.

4.1.2 Personnel area

There must be a trained member of staff in the laundry responsible for monitoring the observance of required hygiene procedures. The range of duties must include the submission of a detailed hygiene plan and continually informing personnel of the purpose, necessity and extent of hygiene measures (with documentation in the inspection record book). Personnel charged with the laundry care must be trained regularly. This training must be documented for all employees. Hand sanitizing stations must be easily accessible to all employees.

4.1.3 Soiled linen area

4.1.3.1 Delivery of Soiled Linen

Linen should be delivered in suitable transport containers such as transport bags, containers etc.

4.1.3.2 Storage of Soiled Linen

The soiled linen should be stored dry until transport to the laundry facility. Storage time should not exceed 48 hours in normal circumstances.

4.1.3.3 Sorting Soiled Linen

The soiled linen is sorted depending on the washing process to be used.

4.1.3.4 Workstations

The workstations must be functional and clearly laid out, enabling continuous operation. Order and cleanliness must be observed.

4.1.4 Clean linen area

Disinfection of hands must be performed before handling clean linen.

4.1.4.1 Preparation of Fresh Water

If no natural water is available, water preparation should be carried out in a plant that provides water with a hardness of maximum 6 grains or 0.3 ppm and less than 0.1 ppm of iron; the daily monitoring of the water preparation plant with respect to the water equivalents is to be recorded in the inspection record book. Recontamination of the linen, especially by rinsing water, must be avoided. Softened water or water from the drainage area that is fed back into the rinsing process must be checked regularly as required to identify and eliminate the risk of bacterial contamination. Appropriate disinfectant agents or procedures should be applied if necessary.

4.1.4.2 Washing machines

The washing machines used together with the washer extractor/drainage machines including their controlling and checking equipment must function efficiently. It must be possible to remove washing liquor easily. It must be possible to disinfect all parts in contact with the linen and liquor. Commercial laundry equipment is required. The use of residential laundry equipment is not permitted.

4.1.4.3 Washing procedures

Disinfecting washing procedures must be used. Procedural rules must be easily accessible in the wet washing area. Information for the applicable washing processes must be given in the procedural rules: liquor ratio, loading ratio, detergent dosage, alkalinity, decolorant dosage, liquor temperature for pre-washes, clearing and rinsing; bleaching cycle. The use of formulated detergents intended and marketed for home laundry use are not permitted unless specifically approved.

4.1.4.4 Drainage

Presses/centrifuges must be able to be cleaned and disinfected. Further processing of the damp linen must be carried out without storage.

4.1.4.5 Workstations

The workstations in the clean linen area must be functional and clearly laid out, enabling continuous operation. Order and cleanliness must be observed. Work surfaces must be regularly and properly sanitized.

4.1.4.6 Drying

The drying machines, including their controlling and checking equipment, must be in working order. Commercial laundry equipment is required. The use of residential laundry equipment is not permitted.

4.1.4.7 Ironing

The ironers must operate perfectly, folding and creasing the ironed linen must be carried out properly.

4.1.4.8 Processing shaped items

The presses, finishing cabinets and mannequins must operate perfectly. During preparation of clean linen for ironing, contact with the linen should be limited to the minimum necessary.

4.1.4.9 Storage of clean linen

The storage of the clean linen must be clearly laid out. Storage areas and storage surfaces must be well maintained, neat and clean. The clean linen must be hygienically clean when packed for storing. Recontamination must be avoided. Disinfection of hands must be performed before handling clean linen.

4.1.4.10 Dispatch of clean linen

Vehicle floors and outer surfaces must be clean. The drivers of the transport vehicles must wear work clothes provided by the user of the certificate. These work clothes must be regularly maintained by the operator. The linen must be transported in receptacles that protect the packing from mechanical damage. The linen must be protected from contamination. The cargo holds in the vehicle must be covered. The inner surface of the cargo holds must be easy to clean and disinfect. After transporting soiled linen and before transporting clean linen the cargo hold of the vehicle must be adequately disinfected. Disinfection of hands must be performed before handling clean linen.

4.2 Linen care

Quality statements can be made via wash cycle controls using textile process indicators. Further information can be obtained from Hohenstein. The contents of these investigations are the degree of whiteness, the color shade deviation, the basic white value, the tissue incrustation, the reduction in strength and the chemical fiber damage.

4.3 Linen finishing

Cleanliness, a good degree of whiteness, dryness even in problem areas, a neutral smell and sufficient protection against recontamination is required for the clean linen which is to be delivered. In addition, ironed linen must display optimal smoothness and be folded ready to be placed in a cupboard. Article-specific finish is required for shaped items.

4.4 Hygiene requirements

4.4.1 Rooms

Floors, and if possible, also walls at working height, exterior surfaces of installations and machines must permit damp cleaning and disinfection. The floors of the work rooms are to be cleaned at least once per week and disinfected when necessary. Sanitary and communal rooms must be kept in a clean state which encourages the staff to be aware of hygiene.

4.4.2 Equipment

Transport equipment, receptacles, racks, shelves etc. must be cleaned and disinfected daily. The following must be available, particularly in the changing and common rooms and in the toilets: Hand washing facilities with running hot and cold water, cleaning agents not harmful to the skin, disposable towels, as well as disinfectant dispensers for disinfecting hands.

4.4.3 Personnel

The laundry management must provide employees who work in the soil laundry area with specially marked protective clothing, which must be changed at least once a week. The personnel must be instructed to disinfect hands, especially after using the toilet and to adhere to the hygiene requirements, particularly between the soil and clean laundry areas. When leaving the soiled area, protective clothing must be changed, and hands must be disinfected. Smoking and eating are prohibited in the soil and clean laundry areas. In addition, drinking is prohibited in the soil area.

4.4.4 Hygiene plans

Appropriate hygiene plans are to be drawn up for all areas where hygiene is important including loading and unloading of delivery trucks.

4.4.5 Clean linen

Checks on the clean laundry must take place after arrival from the processing laundry facility. The linen processed must be low in microbiological contamination.

Food and hospitality linen is low in microbial contamination if at least 9 out of 10 samples show no more than 50 germ colonies per 100 cm² with bacteriological checks by means of soiled germ carriers on surfaces of at least 20 cm² in various places of different types of linen after incubation on a culture medium according to DIN 10113-3 (Rodac plate test) or equivalent.

Healthcare linen is low in microbial contamination if at least 9 out of 10 samples show no more than 20 germ colonies per 100 cm² with bacteriological checks by means of soiled germ carriers on surfaces of at least 20 cm² in various places of different types of linen after incubation on a culture medium according to DIN 10113-3 (Rodac plate test) or equivalent.

Wash cycle controls with bioindicators must be carried out regularly (when laundering of food, hospitality, or healthcare textiles take place on site. If no laundering takes place on site bioindicator testing is not required. *Staphylococcus aureus* or *S. epidermidis* and *Enterococcus faecium* should be used as test germs. Cotton lobules that have been contaminated with a germ suspension in blood and then dried are used as germ carriers. The bioindicators are added during washing and then analyzed in the laboratory. 7 log levels must be reduced.

5 Test regulations

5.1 Branch

Fulfilment of requirements is controlled by on-site inspections at least once every 3 years. A representative from the test center (Hohenstein) completes the checklist inspection. In years that an on-site inspection is not required by the test center a self-assessment checklist must be completed by the branch management.

5.2 Linen care

Tests on the value retention of laundry can be carried out in Hohenstein's laboratories or Hohenstein selected subcontractor in accordance with international standards.

5.3 Linen Finishing

Through self-checking, random samples should be taken of 5 test samples of dry, ironed and shaped linen as an in-house test to check:

- a) visually for folding, finish of shaped parts, packaging
- b) visually to ensure that it is clean with no stains, greying and smoothing
- c) sensory for smell

The results should be recorded in an inspection record book, entering the supplier, order no., etc. The frequency of the sample tests to be carried out and entered in the inspection record book is to be twice per year. The findings from the tests a, b and c for at least 10 test samples are recorded in the test list.

5.4 Hygiene requirements

Hohenstein's inspection officer checks compliance with the requirements during the inspection by completing the checklist for hygiene control. Bacteriological tests of the disinfecting washing process with contaminated germ carriers, water tests, and surface contact sampling are carried out. Bacteriological controls are carried out in a clean environment.

6 Monitoring

6.1 Initial test

An on-site visit from a Hohenstein auditor is required during each three year certification cycle and a self-assessment by the branch is completed in years without an on-site visit. . The Hohenstein auditor checks the prerequisites for the award of the certificate, including checking the hygiene on site, checking the documents and taking microbiological samples. Annual testing is a prerequisite for the award of the certificate. The branch management will collect samples for submission in years that no site visit is required.

6.2 In-house tests

Each certificate holder must carry out the necessary internal checks to ensure compliance with the quality regulations, document and keep them for at least 2 years.

6.3 Monitoring tests

Each certified laundry plant location must submit 2 textile samples quarterly to an approved testing facility for confirmation of continued compliance to the test limits. Any results not meeting the criteria must be replaced with additional samples. Proof of this ongoing conformance process is audited by Hohenstein during laundry plant certification renewals. Branch locations should request copies of quarterly testing results and maintain them on-site.

6.4 Laboratory tests

The laboratory tests are carried out by an external, accredited laboratory according to ISO 17025.

7 Award of the certificate

7.1 Prerequisite for the certificate

The prerequisite for obtaining the certificate is good hygiene from the preparation of the laundry to delivery to the customer. The microbiological results of the surface germ count of the dry laundry and the implementation of a site specific hygiene plan must be demonstrated. In addition, a valid certificate of hygiene management for food, hospitality, and healthcare must be available from the laundry processing plant servicing the branch location.

7.2 Validity of the certificate

A certificate verifying hygienically clean management of healthcare, food processing and/or hospitality laundry is valid until the end of the calendar year following the certification date. During its period of issue, the certificate may be used in advertising, as an enclosure with offers and when negotiating orders.

7.3 Basis of Quality

The basis of quality for the Hohenstein certificate consists of the quality and test regulations for professional textile services in laundries. This basis is regularly amended and developed to bring it up to date with advances in technology.

8 Amendments

Any amendments to these quality and test regulations, even editorial changes, require prior written approval from Hohenstein.

9 Appendix

9.1 Specimen hygiene certificate



Certificate of Hygiene Control Management

Acme Uniform Cleaners

2468 Hospital Avenue | Healthcare, ST 12345 | USA

Hygiene Control Management for Health Care Service



The certification is granted upon meeting the following metrics during annual testing:

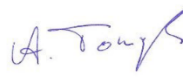
- The disinfection capability of the laundering procedures is validated to achieve a 7 log reduction (< 1 organism out of 10,000,000) in bacteria
- Tested textiles achieved levels of 20 CFU/dm², validated by an independent laboratory

The process and textiles are reviewed annually for recertification by Hohenstein Laboratories GmbH & Co. KG | 74357 Boennigheim | Germany | January 1, 2022

Valid until December 31, 2023


Dr. Timo Hammer
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Hygiene Expert

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