

# In-house control in health protection

The Health Protection Act obliges operators to carry out in-house control. In-house control refers to the knowledge of the operator's own activities and their risks and the management of these risks. In-house control in accordance with the Health Protection Act focuses on the risks that cause health hazards. In-house control applies to all operators subject to health protection control, from educational institutions to individual beauty entrepreneurs.

These instructions include an introduction to the risk assessment of health hazards and examples for specific operations. These guidelines do not apply to establishments or operators supplying household water or swimming pools subject to regular monitoring. Guidance on the quality assurance and risk assessment of household and pool water is available elsewhere.

## OPERATORS HAVE A RESPONSIBILITY TO

1. identify the risks associated with the operations
2. monitor the factors affecting the risks
3. prevent any health hazards

## Contents

|  |          |
|--|----------|
| <b>WHO MUST CARRY OUT IN-HOUSE CONTROL?</b>  | <b>3</b> |
| <b>THE HEALTH PROTECTION AUTHORITY MONITORS THE IMPLEMENTATION OF IN-HOUSE CONTROL</b>               | <b>3</b> |
| <b>IN-HOUSE CONTROL IS A CONTINUOUS PROCESS OF MONITORING AND DEVELOPING OPERATIONS</b>              | <b>4</b> |
| <b>RISK ASSESSMENT</b>   | <b>5</b> |
| <b>CONTENT OF IN-HOUSE CONTROL</b>   | <b>6</b> |
| <b>READY-MADE MATERIALS ARE WORTH UTILISING</b>  | <b>7</b> |
| <b>EXAMPLES OF THINGS TO CONSIDER IN IN-HOUSE CONTROL</b>  | <b>7</b> |
| EXAMPLE 1: Household water, fresh water and other water systems                                      | 8        |
| EXAMPLE 2: Indoor air and ventilation  | 9        |
| EXAMPLE 3: Waste management and wastewater   | 10       |
| EXAMPLE 4: The impact of the environment, especially on vulnerable population groups and risk groups | 10       |
| EXAMPLE 5: Specific characteristics of a public sauna  | 11       |
| EXAMPLE 6: Specific characteristics of a daycare centre  | 11       |
| EXAMPLE 7: Specific characteristics of sports facilities   | 11       |
| EXAMPLE 8: Specific characteristics of accommodation premises  | 12       |
| EXAMPLE 9: Specific characteristics of a beauty parlour  | 12       |
| More information and support material for in-house control   | 13       |

# Who must carry out in-house control?

The obligation for in-house control applies to those conducting operations that affect the living environment. These include the following:

- public accommodation providers, such as hotels, apartment hotels and reception centres
- publicly accessible gyms or other sports facilities, saunas, spas, indoor or outdoor swimming pools and beaches
- educational providers, such as preschools, schools, educational institutions and adult education centres
- club facilities for children and young people, youth centres, indoor playgrounds
- daycare centres and social welfare units, such as intensive sheltered housing units or children's homes
- tanning salons, tattoo parlours, beauty parlours or any other operations involving skin treatment or care
- hair salons
- assembly facilities.

The in-house control obligation also applies to mobile operators and those working in temporary premises or at their home.

## The health protection authority monitors the implementation of in-house control

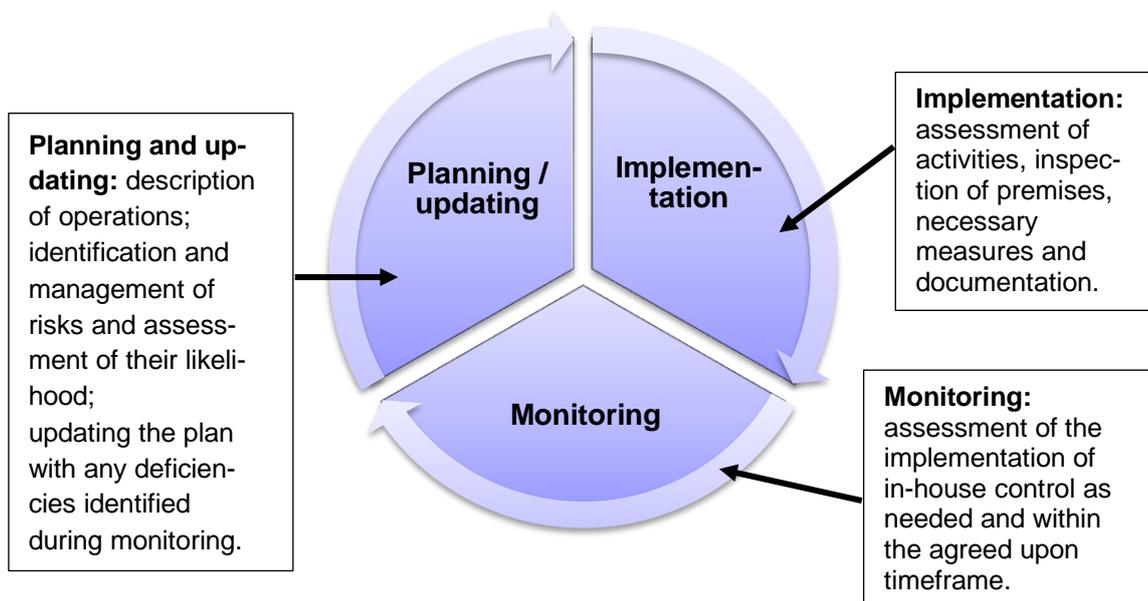
The activities must be carried out in such a way that health hazards are prevented as far as possible. The health protection authority monitors that operators comply with this obligation. In practice, the operator's in-house control and the conditions of the operations are assessed. The monitoring covers aspects such as the ventilation, thermal conditions, noise and lighting of the premises, as well as chemical and biological emissions from structures and activities that are released into the indoor air, and hygiene. The adequacy and suitability of the premises and their characteristics depend on the number of people occupying the premises, among other factors.

The effectiveness of in-house control is checked as part of planned inspections and if the authority has reason to suspect that the activity is causing a health hazard. The operator must be able to show how the potential health risks affecting the operations have been identified, how their severity has been assessed and what risk management methods the operator and the personnel have adopted.

# In-house control is a continuous process of monitoring and developing operations

Effective in-house control involves continuous assessment of the operator's activities and the risks associated with them. In addition to identifying risks, their likelihood is assessed. It is a good idea to keep a record of the risks identified and the associated corrective measures, i.e. to draw up an in-house control plan. Documents and policies related to in-house control are to be kept up to date. Any necessary corrections to the in-house control plan are to be made during monitoring.

Figure 1: In-house control is systematic and continuous monitoring and assessment of operations performed by the operators themselves.



Environmental Services recommends that the in-house control plan be in writing. A written in-house control plan benefits the operator in the organisation of its activities and the maintenance of the quality of its conditions. It is a good tool for staff orientation and operational development. It is also an easy way to demonstrate matters required from in-house control to the health protection authority.

- Effective in-house control involves continuous assessment of the operator's activities and the risks associated with them.
- The City of Helsinki health protection authority recommends the preparation of a written in-house control plan.
- The format of the in-house control plan can be chosen by its author.
- The in-house control plan is to be kept available to all employees.
- The documents and policies must be kept up to date.

# Risk assessment

In-house control is based on the operator’s knowledge of its own activities, the identification of the associated risk factors and risk management. In this context, ‘risk’ refers to a condition or factor that causes a health hazard. Examples of such conditions and factors are given later in this guide. At their best, risk identification and monitoring have a preventative effect on the creation of health hazards. However, identifying risks alone is not enough; it is also useful to identify the magnitude of the risks, i.e. risk level, categorised into insignificant, tolerable, moderate, significant and intolerable risks. Table 1 below can help you assess the risk level. The risk level is determined on the basis of the potential adverse consequences of the risk and the likelihood of the risk materialising.

Table 1. Risk level based on the severity of the consequences of an adverse event and the probability of its occurrence (Source: Finnish Institute of Occupational Health)

| OCCURRENCE | CONSEQUENCES       |                  |                  |
|------------|--------------------|------------------|------------------|
|            | Minor              | Harmful          | Severe           |
| Unlikely   | Insignificant risk | Tolerable risk   | Moderate risk    |
| Possible   | Tolerable risk     | Moderate risk    | Significant risk |
| Likely     | Moderate risk      | Significant risk | Intolerable risk |

For example, if the occurrence of a risk is possible and the consequences if it were to occur would be severe, the risk level is significant. If, on the other hand, the occurrence of the risk is possible but the consequences are estimated to be minor, the risk level drops to tolerable. Table 2 below can help you decide what should be done about risks of different levels, or whether the risk requires any action at all.

Table 2. A simple risk-based action plan (adapted from: Finnish Institute of Occupational Health)

| RISK          | ACTIONS AND TIME SPAN  |
|---------------|--|
| Insignificant | No actions or documentation required.  |
| Minor         | No preventive measures are needed. However, better solutions or improvements should be considered.   |
| Moderate      | Measures must be taken to reduce the risk and the actions must be implemented within a specified period of time.   |
| Significant   | Activities must not be started before the risk has been reduced.   |
| Intolerable   | Activities must not be started or continued before the risk has been reduced. If risk reduction is not possible, even with unlimited resources, the activity must be permanently banned. |

Once the risk level has been determined, it must be decided how the risks identified will be reduced and what measures will be taken to manage them. The implementation of the measures decided upon on the basis of the risk assessment is to be monitored and the situation is to be reassessed at a later stage. The risk assessment must always be reviewed if there is a substantial change in the conditions or activities.

# Content of in-house control

The in-house control plan describes the activity as well as its risk factors and their prevention. The key is to identify the risks of the operator's own activities and operating environment and to be familiar with the regulations and recommendations related to them. The following are examples of matters that can be included in in-house control. Depending on the site, not all of the following points may need to be addressed in in-house control. Similarly, depending on the site, in-house control may also need to address issues not included in these instructions.

In-house control may consist of, for example, the following:

## 1. Operations

Description of operations and facilities

- facilities and the operations or services practised
- operating hours
- numbers of people, such as customers, staff, maximum number of people in the premises at any one time
- number and location of toilets and water points
- cleaning and laundry operations
- facility management
- waste management
- equipment used in the operations
- cleaning and sterilisation or disinfection of equipment and tools
- cleaning and disinfection of surfaces

Health conditions of facilities

- physical conditions, such as ventilation, thermal conditions, noise, lighting, water
- chemical and biological conditions, such as chemical and microbiological effects of the structures and operations on indoor air, particle contaminants in indoor air

## 2. Risk factors in the operations

- location and environment
- sensitive population groups and risk groups, such as children and older people, large gatherings of people
- functions involving possible health risks
- surfaces' and facilities' ease of cleaning
- pests
- changes in operations and facilities
- need for repairs in the facilities
- household water and fresh water

## 3. Prevention of risk factors

- operations and the sufficiency and suitability of the facilities
- an up-to-date review of the premises' or building's condition has been carried out

- staff training and orientation (for example, how staff are inducted, whether work and operating instructions are up-to-date and available to everyone)
- customer guidance
- cooperation and communication between interest groups (key contact details easily available)
- monitoring the functionality of equipment used in the operations
- operating in instances of indoor air problems and when you should suspect indoor air problems
- preparedness for epidemics and other disruptive situations
- prevention of pests
- maintaining the facilities, monitoring and documentation:
  - cleanliness, order and hygiene of the premises: cleaning plan and the monitoring of its implementation; instructions for textile care; cleaning of the equipment used
  - facility management: maintenance plans for the real estate and technical equipment; sweeping and cleaning of ventilation equipment; facility repairs and functionality

## Ready-made materials are worth utilising

When drawing up an in-house control plan, it is a good idea to make use of existing documents. Such documents include, for example, notices of defects in the property, defect repair measures and notices of repairs, cleaning plans, safety documents and in-house control by private social service providers. The in-house control plan may refer to other material or the documents may be included as part of the in-house control plan. When documented actions are attached to the in-house control plan, they are all available in one place.

## Examples of things to consider in in-house control

These instructions include examples of risks related to some activities, as well as general risks related to household water and indoor air, for example. However, every activity and site is different, so operators need to consider the risks and their management in the context of their own activities and operating environment. Examples 1–4 apply to most activities and examples 5–9 apply to specific features of the activities in questions.

## EXAMPLE 1: Household water, fresh water and other water systems

The water plant is responsible for the quality of the mains water supplied. The property owner is responsible for the property's water quality and the condition of its pipes. Water should not be used if any suspicious odour, taste or scent is detected or if it is suspected that the water is causing any symptoms. The operator is responsible for monitoring water quality and temperatures and reporting any deviations. The monitoring of water temperature is recommended as part of in-house control. If any deviations in water quality are detected, the property manager must be contacted, as well as the water plant and the health protection authority if necessary (City of Helsinki, food safety control). Allowing water to run from the tap for a while before using it for drinking or cooking is recommended. This is especially important when the water has been standing in the pipes for several hours or when the water fixtures in the building, such as the tap or the pipes, are new.

Warm water from the pipes is intended for washing. It should not be drunk or used for cooking. Water quality deteriorates in the property's warm water system, as higher temperatures increase the dissolution of metals and chemicals and sometimes also substances causing odour or taste changes from the water system and fixtures. Over time, deposits that decrease water quality may accumulate in water heaters.

Water temperature is an important factor affecting the growth of legionella bacteria. Legionella bacteria can multiply in water at temperatures of 20–45 °C. In new and renovated properties, the temperature of warm household water should be at least 55 °C and in old properties at least 50 °C throughout the system. To prevent legionella bacteria, warm household water should be kept at approximately 55–60 °C, regardless of the system's age. The temperature of cold water should remain below 20 °C to prevent legionella bacteria from growing. Water systems that are not used much or sometimes not at all are potential growth spots for legionella bacteria. All water points in the property must be used regularly to prevent water stagnating in the property's water system. The good condition and functionality of the property's water pipes and water fixtures must be ensured.

Water systems in which legionella bacteria can grow include the following:

- household water systems
- hot water systems
- hot tubs
- humidifiers

## EXAMPLE 2: Indoor air and ventilation

Indoor air quality is affected by many factors, such as dust, particles, chemical contaminants and microbes in the air. For example, in the Helsinki area, radon must be factored in and, where necessary, indoor air radon levels must be measured.

Indoor air quality can be influenced, for example, by maintaining the right temperature, providing adequate ventilation and keeping the premises clean and tidy. To ensure good indoor air quality, it is important that the organisation of activities takes into account the adequacy of the facilities and that the facilities are used as intended. For example, a storeroom is only used for storage, not as a living area. The number of people occupying the premises at any one time should be proportionate to the maximum number of people for whom good indoor air quality can be guaranteed at the premises.

The purpose of ventilation is to remove contaminants, moisture and excessive heat from indoor air in living areas and provide clean replacement air. In in-house control, it is advisable to take into account, for example, matters related to the cleaning and maintenance of ventilation systems, such as the regular replacement of supply air filters and the cleaning of supply and exhaust air ducts.

Indoor air problems may be an issue if deficiencies such as the following are present in the building:

- an abnormal smell
- stuffy air
- too low a temperature or draught
- too high a temperature
- visible signs of mould or moisture damage
- insufficient ventilation
- symptoms that are relieved or disappear when away from the premises (for example, respiratory symptoms, eye and skin irritation, headache, fatigue).

It is advisable to draw up an operating model for situations where an indoor air problem is suspected. It is best to develop this operating model in cooperation with the property owner. In the operating model, the primary contact should be the owner of the property or the party responsible for the maintenance (usually the property manager) when an indoor air problem is suspected. The operating model must also take into account the referral of people who may be suffering from the indoor air problems to health services and communication to customers and staff.

### **EXAMPLE 3: Waste management and wastewater**

Whatever the activity, waste management must be arranged in such a way that the waste does not pose a health hazard at any stage of waste management. Waste management refers to the storage, collection, transport, treatment and recovery of waste. Among other factors, the location and maintenance of waste collection containers must be considered so that they do not pose an odour nuisance or other health hazard. The access of pests to the waste containers must also be prevented. This can be done, for example, by ensuring that the waste containers are undamaged and have lids and that they are emptied often enough that the container lids can always be closed. At certain kinds of sites, consideration must also be given to infectious waste, such as sharps waste, which must be collected and stored in containers with warning labels and delivered for appropriate disposal.

The site must also have a functioning and appropriate waste water system. Drains and their cleaning and other equipment must be designed, located, constructed and maintained in such a way that they do not cause health hazards. Wastewater must also be treated in such a way that it does not cause deterioration in the sanitary quality of household water, the water at a public beach or the soil.

### **EXAMPLE 4: The impact of the environment, especially on vulnerable population groups and risk groups**

Risk factors related to the environment may include things such as busy traffic, nearby industrial activities, energy production, agriculture, soil or various recreational areas, i.e. functions that may cause various emissions. Another example of environmental considerations that must be taken into account is the drainage of rainwater away from the building.

According to health impact studies, children, older people and people suffering from heart and respiratory system diseases are the most vulnerable to traffic noise and emissions. Thus, the risk assessment in premises such as children's units and care institutions for older people must take into account the traffic volumes in the surrounding area. It must also be taken into account that not all users of the premises may be able to report deficiencies in the conditions, which further emphasises the role of the operator in identifying and preventing health hazards.

## **EXAMPLE 5: Specific characteristics of a public sauna**

In a public sauna, issues related to moisture, cleaning and customer behaviour can be risks, i.e. sources of potential health hazards. Moisture must not be allowed to cause a risk of microbial growth in structures, equipment or their surfaces. The operator must consider how to prevent the risks posed by moisture. Methods to control moisture include ventilation, drying the sauna after use and choosing suitable surface materials. Risks associated with cleaning can be managed by, for example, providing cleaning instructions and choosing the right detergents and cleaning methods. The sauna benches must be made of wear-resistant material and easy to keep clean.

One way to reduce the risks associated with customer behaviour is to provide instructions on the use of the sauna. Such instructions include advising people to wash before going to the sauna and telling them where to leave dirty towels, for example. The storage of clean and dirty laundry must be arranged in such a way that there is no risk of mix-ups.

## **EXAMPLE 6: Specific characteristics of a daycare centre**

In daycare centres, preparedness for epidemics and various hygiene and sanitation issues are highlighted. Surfaces' and facilities' ease of cleaning and the frequency of changing and washing toys and bedclothes, as well as parasite infestations, such as head lice and pinworms, are examples of things to consider in in-house control. A frequently highlighted issue among other risk factors is noise, the management of which can be considered in in-house control. The adequacy and accessibility of toilet seats and hand-washing stations also form a common risk factor in daycare centres. Daycare centres must have one toilet seat and one hand-washing station for every ten children, rounded up. In addition to this, the occupational safety and health authorities require that staff have their own toilet facilities in the workplace.

## **EXAMPLE 7: Specific characteristics of sports facilities**

A risk factor for sports facilities can be inadequate ventilation, for example. Inadequate ventilation can be identified by such things as odours and a high indoor air temperature. Conditions during use can best be observed when the maximum number of people have been present in the premises for a sufficiently long period of time. Risk factors also include the maintenance and cleaning of the equipment used. The cleaning of the premises must be systematic. Cleanliness and proper storage of cleaning equipment are essential for good hygiene. The cleaning of storerooms and ancillary premises is also planned and scheduled. Depending on the location of the sports facility, a risk factor may be the noise impact on nearby homes or other public spaces caused by the activities.

## **EXAMPLE 8: Specific characteristics of accommodation premises**

Risks specific to accommodation premises that may cause health hazards include the environment, the adequacy and appropriateness of facilities, indoor climate factors, the adequacy of toilet facilities, the maintenance of bedclothes and water quality. For example, proper storage, use and washing of bedclothes can prevent health hazards caused by such factors as pests or dust. An additional risk is posed by customers' own bedclothes. If the accommodation provider allows the guests to bring their own bedclothes, this should be taken into account in in-house control.

The presence of bedbugs or other vermin can also be a potential risk. In-house control can include consideration of how to prepare for bedbugs, for example, starting with how to identify them. In addition to this, the operator will benefit from a clear action plan ready in case of a bedbug infestation: how to instruct the customer, how to proceed, where to find contact details for pest control. Continuous monitoring through spot checks in cooperation with a pest control company is also recommended.

## **EXAMPLE 9: Specific characteristics of a beauty parlour**

Beauty parlours are involved in skin treatment, which carries a risk of pathogen infection. Infections can be caused by viruses such as hepatitis viruses or HIV, bacteria such as staphylococci and streptococci, and fungi. The risk of infection arises in situations such as when pathogens come into contact with broken skin or mucous membranes such as the eyes, nose or mouth. In measures carried out at beauty parlours, the infection may occur as a contact infection directly from equipment used in the procedure that has been contaminated with pathogens or from the hands of the person carrying out the procedure on the customer. The infection may also occur indirectly via surfaces.

There may also be a risk of inadequate ventilation, especially if acrylic nails are being applied or dust is generated. To prevent the spread of odours and dust, it is important to use local exhaust ventilation.

The hygienic use, maintenance and storage of tools, supplies, equipment and other materials are basic requirements for good hygiene. Hygienic working methods are extremely important for preventing infections. To reduce risks, the use of disposable equipment is recommended. Pedicures can be carried out using tubs protected by disposable protective bags. Pedicure equipment must always be stored separately from other equipment. Cleaning reusable equipment carefully, disinfecting it and if necessary, sterilising it ensures that the equipment will not pose a risk of infection. Sterilisation refers to heating an object to a temperature that is high enough to kill the microbes and their spores. It is a good idea to use an indicator to regularly check that the sterilisation has been successful. When doing treatments that break the skin, the work clothes should also be changed whenever needed, but at least daily. The risk of spreading infectious diseases through droplet infection can be reduced by using a face mask.

Risks can be reduced by assessing the suitability of the client for the treatment offered by having them fill out a client information questionnaire before treatment. It is also a good idea to provide the client with written aftercare instructions.

## More information and support material for in-house control

For tips on the content of in-house control, see the instructions of the Environmental Services:

- [Asunnossa tapahtuvaa majoitustoimintaa koskeva ohje](#) (only in Finnish)
- [Requirements and monitoring of day-care centres and youth premises](#)
- [Requirements and monitoring of comprehensive schools and educational institutions](#)
- [Requirements and monitoring of care institutions and child welfare units](#)
- [Requirements and monitoring of hygiene premises](#)

The instructions are also available on our website: [www.hel.fi](http://www.hel.fi) -> housing and environment -> food safety and environmental health -> health protection -> reports in accordance with health protection act

- Familiarise yourself with the Health Protection Act and the requirements and action limits for premises in the so-called Housing Health Decree: [Terveystensuojelulaki 763/1994](#) (only in Finnish) and the so-called [Housing Health Decree \(545/2015\)](#)
- Read about radon and its measurement on the website of [the Radiation and Nuclear Safety Authority \(STUK\)](#).
- For information about legionella, visit the website of [the Finnish Institute for Health and Welfare \(THL\)](#).
- Water quality problems can be reported on [the Helsinki Region Environmental Services Authority \(HSY\) water and sewers page](#).
- Learn more about the surface hygiene project carried out by the Environmental Services: [Uima-allas- ja märkätilojen pintahygienia](#), Publications of the Urban Environment Division 2020:13 (Only in Finnish)

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