

# Fire safety in Finnish prisons

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**Abstract** 

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This thesis is made for Criminal Sanctions Agencys Central Administration Unit. The objective was to map out fire safety arrangements in prisons and give development suggestion for noticed issues. Results from this research are intended to use to improve Criminal Sanctions Agencys comprehensive security and to standardize emergency plans used in prisons. For this thesis, four closed penal institutions are chosen as research subjects.

The purpose of this qualitative thesis is to study how fire safety is conducted in Criminal Sanctions Agencys four prisons and give suggestions on how the level of fire safety could be increased. This thesis focuses on emergency plans and evacuation safety reports, fire alarm systems and training related to fire safety. Data for this thesis was gathered using document analysis, interview and survey as methods.

From the results of this thesis can be seen how fire safety is implemented in terms of plans, fire alarm systems and trainings. Prisons execute fire safety competently even though they are interested in improving it. To improve fire safety, it is suggested to have uniform frame for emergency plans, transfer responsibility of fire alarm systems to one operator and to create national instructions concerning the quantity and content of fire safety trainings.

Keywords: prison, fire safety, fire safety training, fire alarm system

Laurea University of Applied Sciences Degree Programme in Security Management Opinnäytetyö

Tiivistelmä

Meri Airio

#### Paloturvallisuus suomalaisissa vankiloissa

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Tämä opinnäytetyö on tehty toimeksiantona Rikosseuraamuslaitoksen keskushallinnolle. Tarkoituksena oli kartoittaa vankiloiden paloturvallisuusjärjestelyitä sekä antaa ehdotuksia havaittuihin puutteisiin. Tutkimuksen tuloksia on tarkoitus käyttää Rikosseuraamuslaitoksen kokonaisturvallisuuden kehittämiseen sekä vankiloiden pelastussuunnitelmien yhdenmukaistamiseen. Opinnäytetyön kohteiksi valikoitui neljä suljettua rangaistuslaitosta ympäri Suomen.

Tämän laadullisen opinnäytetyön tarkoituksena on kartoittaa, kuinka paloturvallisuus on hoidettu Rikosseuraamuslaitoksen neljässä vankilassa ja antaa ehdotuksia, kuinka turvallisuuden tasoa voitaisiin nostaa. Data opinnäytetyötä varten kerättiin käyttämällä dokumenttianalyysia, haastattelua sekä kyselyä tutkimusmenetelminä.

Opinnäytetyön tuloksista nähdään, miten paloturvallisuus on toteutettu suunnitelmien, paloilmaisinjärjestelmien ja koulutusten osalta. Tuloksista käy ilmi, että vankilat toteuttavat paloturvallisuuteen liittyvät asiat hyvin, mutta ovat kiinnostuneita kehittämään toimintaansa. Paloturvallisuuden kehittämiseksi ehdotetaan yhtenäistä runkoa pelastussuunnitelmille, järjestelmien vastuun siirtämistä yhdelle toimijalle sekä valtakunnallista ohjeistusta paloturvallisuuteen liittyvän koulutuksen sisällöstä ja määrästä.

Avainsanat: vankila, paloturvallisuus, paloturvallisuuskoulutus, paloilmaisinjärjestelmä

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#### 1 Introduction

The purpose of this qualitative thesis is to study how fire safety is implemented in Criminal Sanctions Agencys prisons in terms of emergency plans, fire alarm systems and fire safety training. This thesis is a further research for a thesis made by a student from Criminal Sanctions Training Institute. His thesis covered Criminal Sanctions Agency's personnel's competence needs and how fire safety in prisons could be developed in order to effectively execute rescue operations in case of a cell fire. The author of the thesis cannot be revealed since the thesis is not public. This research aims to continue studying fire safety in prisons from three aspects mentioned before. For fire safety trainings, the focus is on trainings in general which includes the trainings for other than surveillance personnel as well.

From Criminal Sanctions Agency's 26 prisons, four has been chosen as research subjects. The chosen prisons are from every Criminal Sanctions Regions, which are the Criminal Sanctions Region of Eastern and Northern Finland, the Criminal Sanctions Region of Southern Finland and the Criminal Sanctions Region of Western Finland. All penal institutions chosen for this research are closed prisons. Names and locations of the prisons are not mentioned in this thesis. Prisons are referred as prison 1, prison 2 etc. in order to limit the identification.

This qualitative research uses document analysis, interviews and survey as methods. Data gathering can be divided into three parts. Research begins with analysing emergency plans. In the second part interviews are executed. The final part of data gathering is an online survey for the personnel of the prisons.

From the gathered data can be seen how these four prisons have carried out fire safety. Development suggestions are drawn from the results. The names and work positions of the Criminal Sanctions Agencys personnel involved in the research are concealed, as well as is the identity of the institutions. Institutions are part of a critical safety organisation which will make the concealing necessary.

From the results can be seen that Criminal Sanctions Agencys prisons have carried out fire safety differently in these three areas. All the four prisons have training and rehearsals related to fire safety every year, but the content of the trainings differ between prisons. To improve trainings in prisons, Criminal Sanctions Agency could set regulations on fire safety trainings in prisons. In the prisons chosen for research, fire alarm systems are addressable. Updates in systems and maintenance contracts differ between prisons and organization responsible on systems varies. In some prisons Criminal Sanctions Agency is responsible and Senate Properties in some, which will lead to differences in maintenance contracts and updates in the systems. To improve fire safety comprehensively, one organisation should be responsible on fire alarm systems in all prisons. Emergency plans in almost all prisons met the

regulations set in Rescue Act. Risk evaluation was incomplete in some of the plans and some plans contained information which is not relevant for emergency plans. To clear out the emergency plans, Criminal Sanctions Agency could have universal form for emergency plans.

#### 2 Research questions and theoretical frame

This thesis studies fire and evacuation safety in prisons from three aspects. Those aspects are; fire alarm systems, emergency plans and fire safety training. Goal of the research was to find out how fire safety from these three aspects is implemented in the four prisons chosen for research and give development suggestions based on the results. Based on the research objectives and goal, two research questions have been determined;

- 1. How fire safety is implemented concerning fire alarm systems, rescue plans and fire safety training?
- 2. How fire and evacuation safety could be improved?

To be able to answer the first research question, four prisons have been chosen as research subjects. Data collection methods used to answer the question are document analysis, interview and survey. Research methods are discussed in part 4. The second research question "How fire and evacuation safety could be improved?" will be answered based on the results of the first question. Development suggestions are made based on the legislation concerning fire safety and opinions of interviewees and the writer of this thesis.

Fire and evacuation safety is an important part of prison safety. With emergency plans, fire alarm systems and training, organisation is prepared for fire and other accidents. Objective is to secure people, vital operations, facilities and prevent accidents. Penal institutions are challenging in terms of rescue operations and evacuation safety because of their field of operations.

Previous research has been made concerning safety in Finnish prisons. The research conducted by Mika Junninen clarified the personnel's and inmates' opinions on the level of safety in prisons during summer 2007. In one part of the research, prisons security plans were evaluated. Security plans were quite different between prisons. There were good plans but there were also plans which were difficult to understand or incomplete. (Junninen 2008, 47) Emergency plans were included in his research which means that emergency plans have been evaluated in 2007. However, the Rescue Act has been updated in 2011 which makes this research relevant. Since 2011 emergency plans should contain risk evaluation.

Senate Properties owns the real estate's where prisons operate and rents them to Criminal Sanctions Agency. There are unclarities which organization is responsible on what in fire safety matters. Other unclarity is that are the responsibilities implemented to personnel level. This thesis aims to find out what the situation is now and clarify the responsibilities. Criminal Sanctions Agency's security engineer Ari Pakarinen has identified this problem in his presentation concerning the cell fire in Turku prison where an inmate died.

The thesis, Criminal Sanctions Agency's personnel's competence needs and how fire safety in prisons could be developed in order to effectively execute rescue operations in case of a cell fire, made by a student from Criminal Sanction Training Institute focuses on extinguishing and rescuing in a cell fire situation. It states that prisons should invest on fire safety trainings. This thesis aims to continue the mapping of the trainings and get a wider picture of the content, participation percentage and how often trainings are organized.

## 3 Theoretical background

Theoretical background for this thesis consists of the prison system in Finland and legislation concerning fire safety in prisons. Rescue Act 379/2011, governmental degrees and Imprisonment Act 23.9.2005/767 are the legislation that apply to this research.

Criminal Sanctions Agency has defined safety policies in 2015 which sets demands for fire safety as well. The policy defines that rehearsing challenging situations with other safety officials needs to be arranged regularly and the cooperation needs to be regular and systematic. The policy states as well that safety, fire and rescue trainings and necessary further training need to be organized in the units. (Rikosseuraamuslaitoksen turvallisuuslinjaukset. 2015)

## 3.1 Prison system in Finland and legislation

Criminal Sanctions Agency is an enforcement official of prison sentences in Finland which operates under the Ministry of Justice. The objective of Criminal Sanctions Agency is to prevent crimes and increase the safety of society. Central Administration Unit, three Criminal Sanctions Regions, Enforcement Unit and the Training Institute for Prison and Probation Services together forms Criminal Sanctions Agency. (Criminal Sanctions Agency, 2013) From the figure below can be seen the organizational structure of Criminal Sanctions Agency.



#### CRIMINAL SANCTIONS AGENCY Internal Audit Director of Internal Audit Director General Central Administration Criminal Sanctions Criminal Sanctions Criminal Sanctions Region of Eastern and Northern Finland Region of Southern Finland Region of Western Finland Region Centre Management Support Region Centre Region Centre Region Director Director General Region Director Region Director Effectiveness of 12 prisons Sanctions Development Director Administration and Legality Administrative Director Assessment Centre

Figure 1: Criminal Sanctions Agency, 2013

ENFORCEMENT UNIT

Finland is divided in to three Criminal Sanctions Regions; Eastern and Northern Finland, Southern Finland and Western Finland. All regions have regional administration. All together 26 prisons have been divided in to these three regions. From these 26 prisons 15 are closed prisons and 11 open institutions. (Criminal Sanctions Agency, 2013)

TRAINING INSTITUTE FOR PRISON AND PROBATION SERVICES

Criminal Sanctions Agencys operations are guided mainly by two laws; Act on Criminal Sanctions Agency 27.11.2009/953 and Imprisonment Act 23.9.2005/767. Act on Criminal Sanctions Agency states that the objective of Criminal Sanctions Agency is to improve inmates' abilities for a crimeless life, management of their own lives and their placing on society with the enforcement of prison sentences. (Laki Rikosseuraamuslaitoksesta 27.11.2009/953. 2009.)

Imprisonment Act 23.9.2005/767 concerns the enforcement of unconditional imprisonment and a fine- conversion sentence. The Act does not refer to fire safety directly but following regulations applies to fire safety as well. Chapter 1, 3 § of imprisonment act states that enforcement of the imprisonment needs to be safe for society, inmates and prison personnel. Chapter 4 of the Imprisonment Act sets regulations concerning inmate's arrival and their placing in prisons. Prisons are obligated to inform inmates immediately after arriving to prison about their rights and obligations, as well as prisons regulations and conditions. When inmates arrive to prison, they are checked for contraband. Item can be taken away from the inmate for example if it compromises prison safety. Inmate has to follow the prison

regulations and requests, as well as commands received from prison personnel, including fire safety regulations. (Vankeuslaki 23.9.2005/767. 2005.)

#### 3.2 Rescue Act 379/2011

Rescue act 379/2011, section 12 states that technology used for maintaining fire and evacuation safety needs to be serviced and inspected appropriately. Technology needs to be operational. Equipment referred in the Act contains;

- 1. "firefighting equipment, fire and rescue equipment and response equipment
- 2. equipment facilitating fire extinguishing and rescue work
- 3. fire detectors, alarm devices and other devices indicating accident risk
- 4. signs indicating escape routes and lighting
- 5. supplies and equipment in civil defense shelters" (Rescue Act 379/2011)

Owner of the building, occupant and operator are responsible on previously mentioned issues.

Section 15 of the Rescue Act 379/2011 states that the emergency plan needs to be made to a building or other target which is challenging for evacuation safety or for rescue operations. Or where the consequences of possible danger or accident can have severe impacts for personnel and fire safety, environment or cultural heritage. Emergency plan is required from penal institutions because the nature of the institution requires restriction of freedom which makes it challenging for fire and evacuation safety. According to Governmental degree on rescue services 5.5.2011/407, emergency plan can be included in for example preparedness plan or safety plan if other law than Rescue Act or competent official requires those plans from the institution. If emergency plan is included in another plan, this has to be mentioned.

Emergency plan is a document which guides to prevent accidents. It contains all the necessary information on safety arrangements and instructions on how to act in case of a fire or other accident.

"The emergency plan shall contain the details of;

- 1. The conclusions on the assessment of the dangers and risks
- 2. The safety arrangements of the building and the facilities used for the operations carried out in the building or at the site
- 3. The instructions for building residents and other persons on how to prevent accidents and what action to take in accidents and dangerous situations

4. Any other measures related to self- preparedness at the site" (Rescue Act 379/ 2011, section 15)

Governmental degree on rescue services 5.5.2011/407 sets more specific regulations on targets which need to have emergency plans. It sets regulations regarding the content of plans as well.

According to Governmental degree on rescue services, Institutions abnormal usage and temporary change of use has to be covered in emergency plan when needed. Emergency plan has to be up to date and employees, inhabitants and others who are participating in executing emergency plans has to be informed about the updates. (Valtioneuvoston asetus pelastustoimesta 5.5.2011/407.)

Alongside emergency plans, Rescue Act 379/ 2011 requires evacuation safety report from closed penal institutions. It is a tool meant for planning, executing and maintaining fire safety in facilities containing people with decreased ability to function. In evacuation safety report the entrepreneur/ operator shows that the requirements for safe evacuation are met. The ability to evacuate people with decreased ability to function is analysed. In the report is clarified whether the evacuation happens assisted or independently. Operational readiness of the personnel and rescue authorities needs to be analysed in the report as well. (Suomen Pelastusalan Keskusjärjestö. 2017.)

Evacuation safety report needs to be updated every three (3) years or if the operations changes remarkably. Report needs to be submitted to regional rescue authorities for assessment. (Rescue Act 379/ 2011, §19)

Governmental degree on evacuation safety report (292/2014) sets requirements for the content of the report. Evacuation safety report mentioned in Rescue Act (379/2011) should contain information on;

- Operator (name and contact information)
- Address of the target
- Service content and production way
- Number of residents/ nursed divided according to activities and facilities
- Number of personnel in different times
- Fire class and floor amount of the building
- Evert floors square meters
- Description of the arrangements of extinguishing and rescue operations

- Building license
- Ground plan and floor plans of the facilities used in operations
- How residents decreased ability function affects to evacuation, does evacuation happen independently or with the help of personnel/ personnel and rescue department
- What is the operation readiness of personnel and possible help from the outside
- How long the evacuation takes from different rooms and fire compartments (Valtioneuvoston asetus poistumisturvallisuusselvityksestä 292/2014, 2014)

## 4 Research methodology

This thesis uses three methods to gather data which are document analysis, interview and survey. The usage of these methods is explained more thoroughly in this section of the thesis. With the collected data, the understanding of current state of fire and evacuation safety in prison will be formed. Data will be analysed using material-based content analysis. With content analysis, the picture of the researched phenomenon is presented in a clear and compacted form without losing the information it contains. (Tuomi & Sarajärvi 2009, 103-104)

This section explains the timetable of the thesis process as well and in the last part reliability and ethical questions are discussed.

## 4.1 Document analysis

The level of preparedness in case of fire is evaluated with document analysis. Documents used for this purpose are emergency plans and evacuation safety reports. All the prisons send their plans, except one because of the size of the document. This prisons emergency plan and evacuation safety report were evaluated at the same time with the interview. Emergency plans were used to gain information from the prisons before the interviews as well.

Emergency plans and evacuation safety reports received from prisons were read through. The content of the reports was compared to the requirements set in Rescue Act 379/2011, in Governmental degree on evacuation safety report and in Governmental degree on rescue services. Table below was used to analyse the documents.

Prison				
Rescue plan	Rescue plan			
	Yes	No	Observation	
Plan is up to date				
Conclusions on the assessment of the dangers and risks				
Safety arrangements of the building and the facilities used for the operations carried out in the building or at the site				
Instructions for building residents and other persons on how to prevent accidents and what action to take in accidents and dangerous situations				
Individual emergency planning in exceptional circumstances				
Evacuation safety report				
	Yes	No	Observation	

Report is up to date		
Operators contact information and street address of the target		
Service content		
Number of residents divided according to the activities and facilities		
Number of personnel in different times		
Buildings fire class and number of floors		
Square meters of all the facilities used in operations		
Description of the arrangements of fire extinguishing and rescue operations		
How residents decreased ability function affects to evacuation, does evacuation happen independently or with the help of personnel/ personnel and rescue		
department		

What is the operation readiness of personnel		
How long the evacuation takes from different rooms and fire compartments		

Table 1: Evaluation of plans

#### 4.2 Interview

Interviews were semi- structured thematic interviews. In thematic interview the themes are defined beforehand, but the exact form and order of the questions are not defined. (Hirsjärvi, Remes & Sajavaara 1996, 208) Thematic interview is a semi- structured method because it is closer to structured interview than unstructured. One aspect of the interview is same for all the interviewees. (Hirsjärvi & Hurme 2011, 48) Semi- structured interview is a flexible method which allows the interviewer to ask more questions and come back to a previously discussed theme. The interview is more like a discussion around certain themes which is guided with defining questions. (Kananen 2012, 104)

Interviews were executed individually, and all the interviewees are Criminal Sanctions Agency's personnel. Purpose of the interviews was to gather information on training, risk management, fire alarm systems and responsibilities in fire and evacuation safety matters. It was expected to find out how the maintenance of fire alarm systems is managed and what kind of fire alarm systems prisons have and do employees know how to use them. In responsibility matters the main interest was on how the responsibilities are divided between prisons and Senate Properties and do employees know their responsibilities in fire and evacuation safety matters. From the fire safety trainings, the interest was on the content of the trainings and how often trainings are organized. The opinions of the current state of trainings was asked and how the interviewees would improve trainings.

Interviews were recorded and transcribed. Number of interviews is five (5) and they took place in interviewees workplaces. Interviews were conducted by the writer of the thesis. The names and work positions of interviewees cannot be revealed in this research. This research refers to interviews with letters, for example interview A.

Interview as a method has several advantages compared to other research methods. It is flexible and there are various possible ways to analyse answers. However, interview has its issues. The preparation and analysing are time consuming. Interviewees might also feel threatened or uncomfortable and give false information. Usually interviewees tend to give socially acceptable answers. (Hirsjärvi, Remes & Sajavaara 2009, 205- 207)

## 4.3 Survey

This thesis used survey to evaluate the level of fire and evacuation safety knowledge among employees. With the survey, it was expected to find out the amount of trainings, participation level, how employees feel about the trainings and do employees feel they know how to act in case of a fire.

The survey was an online survey which was distributed to the whole prison personnel, also to the management level. Survey was structured and contained multiple-choice questions. It was sent to four (4) prisons and the answering happened anonymously. Information about the prison, working years and work status were required in order to be able to analyse the results. Answerers identity will stay anonymous through the whole research and cannot be revealed from the work status. The answers are presented in percentages using diagrams. The conclusion of the level of fire safety knowledge among employees is drawn from the diagrams.

Survey is an efficient method to gather a number of answers fast and the received data is easy to analyse. Writer of this thesis believes the answers will be more truthful compared to asking the questions face to face. There is no pressure to answer in a certain way from the management level or from anyone.

According to Hirsjärvi, Remes and Sajavaara (1997, 195), usually the data received from surveys is seen shallow and the research theoretically plain. It is unclear how seriously answerers have taken the survey and misunderstandings are difficult to control. The answering percent might remain low. This research is prepared for these issues by keeping the survey short and questions simple.

#### 4.4 Timetable

The writer of the thesis received the topic during her internship at Criminal Sanctions Agency. Her internship supervisor informed her that there is a topic available for thesis. Writer of the thesis received contact information of two people who have been discussing about a possible research topic. After discussing about the issue with representative from Criminal Sanctions Training Institute and representative from the Central Administration unit, the research topic started to take shape. Since October 2017, the writer has been planning the research with the representatives. The table below shows the timetable of the thesis process.

Phase	Time period
Planning	October - December 2017
Research plan	November - December 2017
Research permission application from Criminal Sanctions Agency	December 2017
Plan presentation	January 2018
Document analysis	January - February 2018
Survey	September - October 2018
Interviews	March- July 2018
Content analysis	February - April 2018
Finalizing the report	November 2018
Thesis presentation	December 2018
Publishing	December 2018

Table 2: Timetable

## 4.5 Reliability and ethical questions

In every research reliability is assessed. There are two terms related to assessment of research reliability, reliability and validity. These terms are mainly linked to quantitative research but can be used in qualitative too. Term reliability states that research should give the same answers if it is repeated, even though the researcher changes. Validity assesses do

the research methods measure what they are supposed to measure. (Hirsjärvi, Remes & Sajavaara 1996, 231- 233)

Part of the information used in this thesis is concealed and the identity of people or institutions cannot be revealed. This might decrease the reliability of the thesis because information cannot be traced back to a certain people or institution. Reliability of the qualitative research can be increased with an exact description of the process. By reporting the circumstances, durations, places, misinterpretations etc. of the interviews will increase the reliability. (Hirsjärvi, Remes & Sajavaara 1996, 231 - 233) To increase the reliability of this thesis, the research process is described as thoroughly as it can be without giving too much information about the institutions and its personnel.

Ethical questions have to be considered in the research process. Research process has to follow good research practice. Dishonesty has to be avoided through the whole research process and reporting cannot be misleading or incomplete. (Hirsjärvi, Remes & Sajavaara 1996, 23-27) In this thesis, the results are presented as they are. The author of this thesis will not let her own opinions effect on the results.

Basis of ethically acceptable research is respect of human dignity and self- determination. People needs to be given the opportunity to decide whether they want to participate in the research or not. (Hirsjärvi, Remes & Sajavaara 1996, 23-27) In this thesis, the participation to interviews and survey was voluntary.

## 5 Results

In this section the results from document analysis, interviews and survey are presented. The results are divided into three sections based on the research method used to gather information. From the appendices can be found the evaluation form for document analysis and questions for interviews and survey.

## 5.1 Document analysis

Document analysis was used to evaluate the emergency plans of these four prisons chosen for research subjects. As mentioned in the section 3.2.2., emergency plan should contain information on;

- 1. "The conclusions on the assessment of the dangers and risks
- 2. The safety arrangements of the building and the facilities used for the operations carried out in the building or at the site

- 3. The instructions for building residents and other persons on how to prevent accidents and what action to take in accidents and dangerous situations
- 4. Any other measures related to self- preparedness at the site" (Rescue Act 379/ 2011, section 15)

The plans were evaluated by using the table which was presented in section 4.1. Evaluations for all the four prisons can be seen in the appendix 1.

Some of the plans lacked proper risk evaluation and instructions on how to act in case of a fire or other accidents. Main observation was that the plans had irrelevant information for emergency plans. The emergency plan of prison 1 has thoroughly explained prisons work safety strategy, targets for planning period and their occupational health care. All these issues are irrelevant for emergency plans. Plan had also information that belongs to preparedness plan, which is irrelevant for emergency plan, even though the Rescue Act 379/2011 states that emergency plan should explain how self-preparedness is executed in exceptional situations.

In prison 1, the instructions on how to prevent accidents and how to act in case of a fire or accident covered mainly instructions for prison's surveillance personnel. Plan contained instructions on how to act in case of for example a prison riot or if the buss transporting inmates is hijacked. These instructions are not relevant for emergency plan. In prison 2, the instructions were incomplete, plan contained only instructions on how to act in case of a fire or a medical seizure/accident. Prison 3 had instructions mainly for surveillance personnel as well.

Risks are assessed in a satisfactory way in emergency plans of prison 1 and 4. The emergency plan of prison 2 had covered only the most obvious risks and prison 3 hadn't made a clear risk assessment. Based on the emergency plans and results from interviews can be assumed that risk management has not been adapted in prisons properly.

Evacuation safety reports met the regulations in prisons 3 and 4. Prison 1 and 2 had a few missing parts. The evacuation safety report of prison 1 did not contain square meters of the facilities. Report for prison 2 lacked service content, descriptions of the arrangements of fire extinguishing and rescue operations, operational readiness and evacuation times.

To improve prisons emergency plans, a form has been created. The content of the form can be seen in the section 6.1.

#### 5.2 Interview

Interviews were semi-structured thematic interviews. The questions for the interviews are in appendix 2. Results of the interviews are divided according to discussed themes which are fire alarm systems, fire safety trainings and safety walks and risk management.

## 5.2.1 Fire alarm systems

All the four prisons have addressable fire alarm systems, but the systems differ from each other. For example, one prison has modern and new systems and on the other hand, one has an old and stiff. According to interview D, if a single loop has a malfunction, the system shows only the line where the loop is, and this line might contain hundred loops. Because of that, the maintenance might take several days.

Maintenance contracts are different in these four prisons as well. For example, in prison 2 subcontractor is responsible on organizing the maintenance for systems and prison 3 and 1 have their own machinery personnel who is responsible. Despite the differences in maintenance contracts, in all four prisons maintenance and periodic inspections are done in time and followed carefully. All the procedures are documented and can be found easily later on. Persons responsible on maintenance have carried out their tasks well.

Senate Properties owns the real estate's where Criminal Sanctions Agency operates which is why there are differences in maintenance contracts and updates in fire alarms systems between prisons. For example, prison 1 has a modern and up to date fire alarm system and prison 4 has quite old. Senate Properties is responsible for some prisons systems and Criminal Sanctions Agency some. Division of responsibilities is challenging for controlling the entirety. Current arrangement complicates for example the training of new prison guards since prisons have different systems.

In the conversations with the Criminal Sanctions Agencies employee arises the issue that in some cases the responsibility on fire alarm systems is divided to multiple operators and these do not communicate with each other. Systems are not updated evenly neither, as can be seen from an example above. Responsibility issues are not clear and in some cases it is uncertain whether the responsibility is on Senate Properties or Criminal Sanctions Agency. (Criminal Sanctions Agencys employee. Discussions. 2017- 2018.)

#### 5.2.2 Fire safety training

In terms of fire safety training, the following observations have been made based on interviews. Criminal Sanctions Agency doesn't have formal instructions concerning fire safety training which leads to differences in the amount and content of trainings between prisons. In all four prisons chosen for this research, personnel are interested in fire safety and eager to

organize more trainings. Personnel interviewed for this research feel that fire is one of the biggest risks in prison environment, maybe even the biggest. In all four prisons fire safety training is organized yearly. Although the content of the trainings varies between prisons.

Prison 1 organizes fire safety training twice a year. Training is first-aid extinguishing training which is organized in cooperation with the local fire department. Usage of fire alarm system is included in first-aid extinguishing training. The participation level is followed, and prison employees are obligated to participate in trainings. Prison 1 offers first- aid trainings as well, surveillance personnel and Senior Criminal Sanctions Officials are obligated to participate in it. In the past years, there has been two bigger fire safety trainings which were in cooperation with the local fire department and Emergency Services College. (A. Interview 28.3.2018)

In prison 2 first-aid extinguishing training is arranged once or twice a year. Last time there was a bigger fire safety practice three years ago which was in cooperation with the local fire department. Prison especially arranges trainings for different personnel groups. For example, office workers have trainings specially directed to them. Evacuation training has been arranged unregularly. Interviewee was not certain about the documentation of the personnel participated in trainings but believed that the person who arranges trainings has a list of participants. (B. Interview 6.6.2018)

Prison 3 has yearly cell fire trainings and the objective is that all the surveillance personnel participates in it. If needed, additional training day is organized in order to train those people who were not present. Cell fire training contains training on how to open a door safely, how to use hose reel, radio communication and how to read the situation. Prison is aiming to start a new training where they would practise how to extinguish a fire through cells peephole. For other than surveillance personnel, first-aid extinguishing training is organized unregularly. Evacuation rehearsals are not arranged systematically, last time it was arranged when the prison made their evacuation safety report. (C. Interview 19.6.2018)

Prison 4 has first-aid extinguishing training approximately once a year. Fire safety training which include cell fire training, is arranged once or twice a year. To make the training seem more real, they use theatre smoke and office workers are acting inmates. Participation in trainings is documented. Bigger fire safety trainings are filmed and shown to personnel who were not present. Evacuation rehearsal has been arranged last time for evacuation safety report. Prison has one surveillance personnel who picks randomly other surveillance personnel for more in depth training. The goal is that prison has expertise in every aspect of fire safety. Prison cooperates with the Finnish Police as well. Police is invited to follow prisons fire safety trainings and Police invites prison personnel to follow their trainings as well. (D. Interview 4.7.2018)

Familiarisation to work is different in prisons depending on the persons employment relationship. Persons who have permanent contract have more in-depth training on fire safety matters than persons with temporary contract. Based on the interview A, prison 1 has official familiarisation program which includes short fire safety training. Temporary employees, so called "summer guards" start with one-week long familiarisation before actual work in prison. Based on the interview D, in prison 4 the familiarisation for "summer guards" takes all in all three days. It contains information on the seriousness of fire in prisons. Familiarisation to fire safety arrangements is received along the work duties from colleagues. The interviewee feels that this is not enough fire safety training for a summer guard. In some cases, there might be only summer guards present from the surveillance personnel. Interviewee C states that familiarisation on fire safety matters might be incomplete in some cases since new employees do not come at the same time.

Idea of arranging first-aid extinguishing training for inmates arise in interviews B and E. Fire extinguishing training could be organized especially for inmates who work at the kitchen or other work place which has a fire hazard.

## 5.2.3 Safety walks and risk management

Safety walks are arranged in all four prisons, even though the objective of the walk is different between these prisons. Based on interviews A, C and D prisons 1,3 and 4 use safety walks as a method for risk identification. Based on interview B, prison 2 uses safety walks to familiarize new employees to prisons fire safety arrangements.

For example, prison 4 has safety walks once a year. Senior Criminal Sanctions Officials and machinery personnel will go throw the whole building in cell blocks. All the safety walks are documented. Safety walks are seen useful and unexpected issues have risen up during the safety walks. (D. Interview 4.7.2018) Prison 1 has safety walks four times a year at the same time with Senior Criminal Sanctions Official meetings. Prisons own machinery person participates in safety walks as well. (A. Interview 28.3.2018)

Prisons haven't fully adopted the idea of risk management. Risk management should be continuous process. In three out of four prisons risks are evaluated when they occur. Prison 2 has made risk identification separately for all the work spaces. People who work in that space identify risks. Work safety committee leads the risk identification process. (B. Interview 6.6.2018) In prison 1 risks are identified along with the daily work and specific risk identification has not been made. Noticed risks are discussed in monthly Senior Criminal Sanctions Official meeting. (A. Interview 28.3.2018) Prison 3 hasn't either made a specific risk identification. Personnel inform supervisors if they notice a risk. Before fire inspections, prison 3 does internal audit by using Helsinki Rescue Departments manual. Safety walks are

used as well as a way to identify risks. (C. Interview 19.6.2018) Prison 4 uses safety walks to identify risks as well. (D. Interview 4.7.2018)

From the interviewees were asked their opinions on the current state of fire safety in prisons. Interviewee E believes that the documentation and risk evaluation needs improvement. All the prisons do not see risk evaluation as goal- directed action and as an on-going process. Quality of risk management varies between units and in some cases the person responsible on risk management might not be properly trained for the task. (E. Interview. 17.4.2018) This issue can be seen as well in emergency plans which are discussed in the section 5.1.

## 5.3 Survey

Survey was sent to all four prisons 12.9.2018 and the answering time ended 27.9.2018. Except for one prison the answering period was 1.10.2018 - 14.10.2018. For this research, the answering time was enough. Most of the answers were submitted in the first three days and in the second week the amount of answers decreased. It was excepted that the answering percentage won't be high. All the prisons answered to the survey, except prison 3.

To evaluate the improvement needs, a survey was distributed to prison personnel. Answering to the survey happened anonymously in the internet. Survey was about personnel's competences and opinions on trainings and necessity of trainings. From all the four prisons, altogether 42 people answered to the survey, which makes the answering percentage really low. Results from the survey cannot be used alone to make any conclusions, however the results can be used to support this research.

From the 42 answerers, 21 are from prison 4, 15 from prison 2 and six from prisons 1. From prison 3 answers were not received. From the answerers, 24 are working in surveillance and the rest 18 are working in other positions. Most of the answerers (64,3%) have worked at Criminal Sanctions Agency over ten years, 21,4% 5-10 years, 11,9% 1-5 years and 2,4% less than a year. These questions were asked to be able to analyse the results.

The first actual question asked was in which trainings the answerer have participated in the past two years. Answering options were; first-aid extinguishing training, evacuation, sheltering indoors, first-aid and none of the above. In the past two years, 54,8% of the answerers have not participated in any of the mentioned trainings and no-one has participated in trainings concerning sheltering indoors. 23,8% have participated in first-aid extinguishing and first-aid training. 11,9% of the answerers have participated in evacuation training. Next question was the same, except the time period asked was five years. Still 24,4% answered that they haven't participated in any of the trainings mentioned above.

Next was asked if the answerer has participated in training concerning more challenging situations, for example cell fire. This question was aimed for surveillance personnel. In the figures below can be see the answers of the surveillance personnel.



Figure 2: Participants on challenging situations

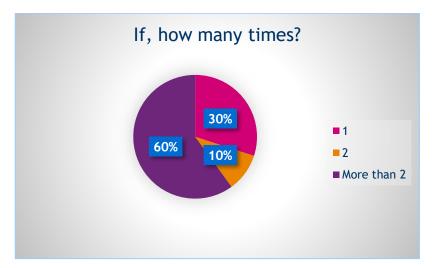


Figure 3: Number of trainings concerning challenging situations

In the survey was asked what trainings concerning more challenging situations have been covering. Four people who have participated in that kind of trainings said that they have been training evacuation and rescuing of large number of inmates, how to support rescue department, how to clear the compartment, cooperation between guards, nurses, rescue department etc. and how to work safely and task that needs to be done afterwards. One of the answerers has been in some kind of course where they went through how to act in different situations but did not cover cell fire situations that much.

Most of the answerers, 76,2%, feel that there are not enough trainings related to fire safety and 92,9% of the answerers feel that trainings are useful. Next was asked if prisons inform clearly about upcoming trainings. From the answerers 61,9% feel that trainings are informed clearly.

In one question of the research was asked what trainings answerers hope to be organized more/more frequently in prisons. Basically, all the possible trainings were wished. Evacuation rehearsal, overall fire practice and cell fire training were hoped the most. Additionally, rehearsals in concrete environment are hoped, for example at answerers own work place.

The next four questions are related to fire alarm system. The answers presented are only from surveillance personnel since they are the ones to use the system. From the surveillance personnel 66,6% feel the need for training concerning the usage of fire alarm system. In this area of survey, differences in personnel's motivation and interests are noticed. Several answerers, who based on the questions, know how to use and read fire alarm system feel that they need more training and few who based on the answers do not know how to use it, answered that they do not need more training.



Figure 4: Operational principles of rescue technology

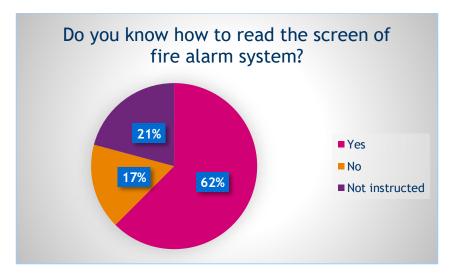


Figure 5: Fire alarm system



Figure 6: Disconnections in fire alarm system



Figure 7: Needs for further training

As can be seen in the figures above, training is needed concerning rescue technology.

In the survey was asked "In which situations you feel you know how to act correctly?". Answering options were; first-aid extinguishing, sheltering indoors, evacuation and first- aid. Most of the answerers feel confident in their actions in first-aid extinguishing (83,3%) and first-aid (61,9%). From the answerers 38,1% feel that they know how to act in evacuation situation and 11,9% in sheltering indoors. Answerers felt uncertain on their own actions mostly in sheltering indoors (85,7%) and in evacuation situation (57,1%). Further training is wished on all the trainings mentioned above, especially in evacuation and sheltering indoors. Only 2 out of 42 answerers feel that they do not need more training.

93% from the answerers feel that trainings are useful and 78% feel that there are not enough trainings. Mainly answerers wish to have more training for evacuation, sheltering indoors and for cell fire situations. From the answerers 31% have not received proper instructions on how

to act in exceptional situations, for example fire. Half of the answerers do not know where their prisons main switches are. From the answerers 57,1% have read their prisons emergency plan.

As can be seen on the answers, more fire safety training is needed and wished. The questions of the survey are in appendix 3.

#### 6 Conclusion

This section answers to the research questions which were;

- 1. How fire safety is implemented concerning fire alarm systems, rescue plans and fire safety training?
- 2. How fire and evacuation safety could be improved?

The development ideas are based on the opinions from the author of this thesis, conversations with the employee at Criminal Sanctions Agency and interviewees visions.

## 6.1 Emergency plans and evacuation safety reports

All prisons have up to date emergency plans, except for prison 2 it is unclear if the plan has been updated. Plans were mainly clear and easy to read. Some of the plans had irrelevant information for emergency plans and some did not contain proper risk evaluation.

One objective for this research was to clarify emergency plans in prisons by creating a form for plans. From the picture in next page can be seen the content of the possible form for prisons emergency plans. This form is created based on the emergency plan made for Satakunta prison in 2017 by the writer of this thesis. Fire inspector from Satakunta Rescue Department has approved the plan.

The objective was to create a clear and simple frame for emergency plans. Frame made for the client, Criminal Sanctions Agency, contains only necessary information and it is easy to adapt to prison's needs. It guides prisons on creating their own emergency plans.

Evacuation safety reports of prisons 3 and four met the regulations. Reports of prison 1 and 2 lacked some information. Prisons should go through their evacuation safety reports and update them. If needed, Rescue departments will help with the reports.

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Figure 8: Emergency plan content

## 6.2 Fire alarm systems

As said in the section 5.2.1., all the four prisons have addressable fire alarm systems. Prisons have differences in maintenance contracts and system updates. Current situation is that the responsibilities for fire alarm systems are divided between Criminal Sanctions Agency and Senate Properties. This arrangement brings up issues in maintenance, updates and renewal of systems.

Fire alarm systems are vital part of fire safety in prisons. If malfunction is noticed in the system, it has to be solved immediately. Unfortunately, this does not in all cases happen at the moment. Rescue Act 379/ 2011 defines that the owner of the building and the operator are responsible for rescue technology, which are in this case Senate Properties and Criminal Sanctions Agency. Responsibility of prisons fire alarm system should be centralized to one actor in order to get general view of systems used in prisons and to be able to improve fire safety comprehensively and in an adequate way. The most natural way would be that Criminal Sanctions Agency would be responsible on all the systems. As an operator, Criminal Sanctions Agency would be able to unify prisons fire safety and the entirety would be more controllable. Criminal Sanctions Agency is aware of the risks related to fire safety in prisons, and when fire alarm systems are in Criminal Sanctions Agencies responsibility, risk management would be more efficient. In addition, monitoring the fulfilment of set regulations and terms would be more effective.

The fire alarm systems should be addressable in all units, preferably with updates in which the screen shows in writing where the alarming fire detector is, along with the codes. This would decrease the response time of prison guards. All of the surveillance personnel should receive familiarization concerning fire alarm system.

Person responsible on maintenance of systems should be Criminal Sanctions Agencies own employees instead of subcontractors. This way could be ensured that the person understands the special features and needs for arranging maintenance.

## 6.3 Fire safety training

Currently all the prisons arrange fire safety training yearly, but the quantity and content of the trainings varies between prisons. Some prisons have extensive cell fire and evacuation trainings every year and some have first-aid extinguishing training yearly and bigger trainings less frequently. As can be seen from the section 5, employees feel that the trainings are useful and wish to have them more often. Prisons cooperate with the local fire departments, one prison cooperates with the Finnish Police as well.

In order to improve prisons preparedness for exceptional situations, would be beneficial to create guidelines for fire safety trainings. Criminal Sanctions Agencys Safety policy from 2015

states that fire safety training and additional training needs to be organized in all units, but it does not define what that training is. If Criminal Sanctions Agency has instructions concerning fire safety training, the writer of this thesis is not aware of that and neither are the persons involved in this research. Guideline for fire safety trainings would define what trainings needs to be organized, the content of the trainings and how often trainings needs to be organized. Prisons could modify these trainings to meet their own needs. However, taken the minimum requirement into consideration.

Fire extinguishing training could be organized once or twice a year. This training would contain the usage of hand extinguisher (how, when, what extinguisher in what situation) and fire blanket (burning dish, extinguishing a person). At the same time with the fire extinguishing training could be safety walk where buildings fire safety arrangements are went through and risks concerning fire safety are identified. Main switches of ventilation, electricity and water should be checked together and made sure that everyone knows where they are and how to use them. Would be beneficial to go through the usage of hose reel as well, even in theory. The usage of fire alarm system should be rehearsed as well at least with the personnel who use the system.

Training for exceptional situations could be arranged every 2-3 years. One important training for surveillance personnel would be how to act in a cell fire situation. In the beginning of the practice would be good to go through how the fire develops in a prison cell. After that it is time for the actual practice. Issues to go through in the practice could be; how to enter to a burning space (equipment, door opening, when to not go in..) and how to start extinguishing. Cooperation with other officials should be rehearsed as well (support, communication, radio traffic...). This training would be best to organize together with the rescue department.

Evacuation rehearsals should be arranged in prisons as well since the evacuation process might not be as simple as in other buildings. If/ when evacuating the whole prison is not possible, only one block can be evacuated. If/when the evacuation of the whole prison is not possible, after the rehearsal should be went through in theory how evacuating the whole prison would go. Where inmates are evacuated? Are there inmate groups which cannot confront each other? Inmates who can move only assisted? Who evacuates which block? At the same time should be went through on how to act when sheltering indoors is necessary.

Based on the conducted interviews, prisons would like to arrange more fire safety trainings and employees are interested to participate in them. Lack of time and resources is seen as the greatest problem. This is an issue that needs to be solved with organizing rehearsals along the daily routines and with rota planning.

Familiarization of fire safety should be similar to everyone, despite the work contract. Based on the interviews employees with temporary work contract do not receive adequate

familiarization to fire safety arrangements and practices. Anyone, despite the work contract, might have to act in case of a fire and it is not beneficial for anyone if the persons haven't received proper instructions on how to act in that situation. There might be a situation when there is only so called "summer guards" present who have not received as comprehensive training as employees with permanent employment contract. In the beginning of the employment should be went through the systems used in the prison, exit routes, firefighting equipment, protective equipment... Employees should receive proper instructions and training on how to act in case of a fire in order to ensure that their actions are adequate. In worst case scenario, these employees who have not received proper fire safety training, can even slow down or complicate first procedures with their own actions.

In interviews B and E came up an idea of organizing fire extinguishing training for inmates. By doing this, the right actions are ensured from inmates as well. This training could be provided to inmates who spent time in places where the risk of fire is increased, for example in the kitchen.

#### 6.4 Evaluation of the work and further research

The writer of this thesis feels that this research gives a good overview of the current state of fire safety in prisons. All the people involved in this research were positive about it and eager to help. The research questions changed during the thesis process, since the writer of the thesis realized the original research questions were too wide. In the beginning the first research question was; What is the level of fire safety in prisons? To be able to answer that question, this research would have been way broader, and the time and resources reserved for this thesis wouldn't be enough. The writer of this thesis would have wanted to research this topic from all the aspects of fire safety, but it would have been too much work.

This research answers to both of the research questions discussed in the section 2. Research methods used for this research were adequate and gave the information that they were expected to give. If the same research would be conducted again in the future, the writer of the thesis would create separate survey forms for surveillance personnel and other personnel. By using the same form, the work load increased since for some questions the writer of the thesis had to go through all the answers and calculate the percentages again. Interviews went well, but if those would be conducted again now, more question would be asked to clarify some of the answers.

For the writer of the thesis, this thesis increased her knowledge on fire safety and Finnish prison system, as well as her knowledge on research in general. She felt the topic interesting which lead to problems on narrowing it to a manageable level. This thesis process supported her growth as a professional, especially in the field of fire safety.

Further research on all areas of fire safety could be done, especially concerning fire loads in prisons and technology, for example sprinkler systems. Fire loads in cells are an issue and based on the interview D, the number of items given to inmates is challenging to control. Risk management in prisons could be an interesting topic for further research as well since there are some development points. Some of them came up in this research process also. This same research could be conducted to the remaining 22 prisons as well.

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Appendix 1: Evaluation of emergency plans and evacuation safety reports

Prison 1				
Rescue plan				
	Yes	No	Comments	
Plan is up to date	x		Description of occupational health care and work safety strategy is irrelevant for emergency plan. Targets for planning period are irrelevant as well.  Section concerning preparedness plan is irrelevant for emergency plan.  Plan is hard to read.	
Conclusions on the assessment of the dangers and risks	x			
Safety arrangements of the building and the facilities used for the operations carried out in the building or at the site	x			
Instructions for building residents	х		Instructions for inmate riots, hijacks	

and other persons on how to prevent accidents and what action to take in accidents and dangerous situations  Individual emergency planning in exceptional	x		of busses transporting inmates etc. are irrelevant. These instructions are specifically for prison guards.  Lists of needed supplies per person in case of
circumstances			exceptional circumstances are irrelevant.
Evacuation safety repo	ort		
	Yes	No	Observation
Report is up to date	x		
Operators contact information and street address of the target	x		
Service content	x		
Number of residents divided according to the activities and facilities	x		
Number of personnel in different times	x		
Buildings fire class and number of floors	x		
Square meters of all the facilities used in operations		x	

Description of the arrangements of fire extinguishing and rescue operations	х	
How residents decreased ability function affects to evacuation, does evacuation happen independently or with the help of personnel/ personnel and rescue	X	
What is the operation readiness of personnel	x	
How long the evacuation takes from different rooms and fire compartments	x	

Prison 2			
Rescue plan			
	Yes	No	Observation
Plan is up to date		х	Plan is created 2010, no information if it has been updated after that.
Conclusions on the assessment of the dangers and risks	x		Incomplete, only the most obvious risks have been determined
Safety arrangements of the building and the facilities used for the operations carried out in the building or at the site	x		
Instructions for building residents and other persons on how to prevent accidents and what action to take in accidents and dangerous situations	x		Incomplete, only instructions on how to act in case of a fire or accident
Individual emergency planning in exceptional circumstances	x		
Evacuation safety repo	ort		

	Yes	No	Observation
Report is up to date			No information on when the report has been created
Operators contact information and street address of the target	х		
Service content		х	
Number of residents divided according to the activities and facilities	x		
Number of personnel in different times	х		
Buildings fire class and number of floors	х		
Square meters of all the facilities used in operations	x		
Description of the arrangements of fire extinguishing and rescue operations		x	
How residents decreased ability function affects to evacuation, does evacuation happen independently or with the help of personnel/	x		

personnel and rescue		
department		
What is the	X	
operation readiness		
of personnel		
How long the	X	
evacuation takes		
from different rooms		
and fire		
compartments		

Prison 3				
Rescue plan	Rescue plan			
	Yes	No	Observation	
Plan is up to date	x			
Conclusions on the assessment of the dangers and risks		х		
Safety arrangements of the building and the facilities used for the operations carried out in the building or at the site	x			
Instructions for building residents and other persons on		х	Instructions mainly for surveillance personnel	

how to prevent accidents and what action to take in accidents and dangerous situations  Individual emergency planning in exceptional circumstances		x	
Evacuation safety repo			
	Yes	No	Observation
Report is up to date	х		
Operators contact information and street address of the target	х		
Service content	x		
Number of residents divided according to the activities and facilities	х		
Number of personnel in different times	x		
Buildings fire class and number of floors	x		
Square meters of all the facilities used in operations	х		
Description of the arrangements of fire	x		

extinguishing and rescue operations		
How residents decreased ability function affects to evacuation, does evacuation happen independently or with the help of	X	
personnel and rescue department		
What is the operation readiness of personnel	x	
How long the evacuation takes from different rooms and fire compartments	x	

Prison 4				
Rescue plan				
	Yes	No	Observation	
Plan is up to date	x			
Conclusions on the assessment of the dangers and risks	х			
Safety arrangements of the building and the facilities used	x			

for the operations				
carried out in the				
building or at the				
site				
5166				
Instructions for	x			
building residents				
and other persons on				
how to prevent				
accidents and what				
action to take in				
accidents and				
dangerous situations				
-				
Individual	x			
emergency planning				
in exceptional				
circumstances				
Evacuation safety report				
Evacuation safety repo	ort			
Evacuation safety repo				
Evacuation safety repo	Yes	No	Observation	
Evacuation safety repo		No	Observation	
Report is up to date	Yes	No	Observation	
Report is up to date Operators contact	Yes	No	Observation	
Report is up to date  Operators contact information and	Yes	No	Observation	
Report is up to date  Operators contact information and street address of the	Yes	No	Observation	
Report is up to date  Operators contact information and	Yes	No	Observation	
Report is up to date  Operators contact information and street address of the	Yes	No	Observation	
Report is up to date  Operators contact information and street address of the target  Service content	Yes x x	No	Observation	
Report is up to date  Operators contact information and street address of the target  Service content  Number of residents	Yes x	No	Observation	
Report is up to date  Operators contact information and street address of the target  Service content  Number of residents divided according to	Yes x x	No	Observation	
Report is up to date  Operators contact information and street address of the target  Service content  Number of residents divided according to the activities and	Yes x x	No	Observation	
Report is up to date  Operators contact information and street address of the target  Service content  Number of residents divided according to	Yes x x	No	Observation	
Report is up to date  Operators contact information and street address of the target  Service content  Number of residents divided according to the activities and facilities	Yes x x x	No	Observation	
Report is up to date  Operators contact information and street address of the target  Service content  Number of residents divided according to the activities and	Yes x x	No	Observation	

Buildings fire class and number of floors	x	
Square meters of all the facilities used in operations	х	
Description of the arrangements of fire extinguishing and rescue operations	х	
How residents decreased ability function affects to evacuation, does evacuation happen independently or with the help of personnel/ personnel and rescue department	x	
What is the operation readiness of personnel	х	
How long the evacuation takes from different rooms and fire compartments	x	

Appendix 2: Interview questions

## Responsibilities/ risk management

- 1. Are the responsibilities divided concerning fire safety?
- 2. Are the prisons responsibilities clear? If not, what is unclear?
- 3. Are safety audits/internal audits conducted in your prison?
- 4. Does your institution evaluate risks?

## Fire safety trainings

- 1. When new employees are familiarized to fire safety arrangements?
- 2. What familiarization of a new employee consists of?
  - How much fire safety?
  - Are there national instructions on familiarization of new employees?
  - What issues related to fire safety are included in familiarization? Rescue technology?
  - Improvement needs?
- 3. Are employees encouraged to read the emergency plan?
- 4. Are employees interested in fire safety?
- 5. Have you noticed any neglects?
- 6. How often fire safety training is organized in your unit? What is the content of the trainings?
  - Criminal Sanctions Region?
  - Nationwide?
- 7. Have you had cell fire trainings? Or other challenging situations?
- 8. Are the trainings meant for whole prison personnel?
- 9. Do you have safety walks in your unit?
- 10. Do you feel that employees know how to act in a fire situation?
- 11. Do employees know how to use fire alarm system?
- 12. Are inmates informed how to act in fire situation?
- 13. How trainings could be developed?

## Rescue technology

- 1. What rescue technology is in your unit?
- 2. Are employees trained to use the technology?
- 3. What facilities are in fire alarm system? How about sprinkler?
- 4. Is the maintenance program followed?
- 5. Have your unit named a person who is responsible on arranging maintenance etc. for rescue technology?
- 6. Are maintenances etc. documented?

What areas of fire safety feels challenging?

What is your opinion on prisons fire safety? Is there improvement needs?

2.	P2	
3.	P3	
4.	P4	
Work placing		
1.	Surveillance	
2.	Other	
How long have you been working at Criminal Sanctions Agency?		
1.	Less than a year	
2.	1-5 years	
3.	5-10 years	
4.	Over 10 years	
Fire safety training		
In wh	at trainings you have participated within the last two years?	
1.	First-aid extinguishing	
2.	Evacuation	
3.	Sheltering indoors	
4.	First-aid	

5. None of the above

Prison

1. P1

How about during the last 5 years?		
1.	First-aid extinguishing	
2.	Evacuation	
3.	Sheltering indoors	
4.	First-aid	
5.	None of the above	
Have you participated in training concerning more challenging situations during your work career?		
1.	Yes	
2.	No	
If you have, what these trainings have contained?		
Are the	re enough trainings?	
1.	Yes	
2.	No	
Have you gone through together buildings safety arrangements in your unit?		
1.	Yes	
2.	No	

Do you feel that trainings are useful?

1.	Yes	
2.	No	
Does your unit inform clearly and visibly about upcoming trainings and rehearsals?		
1.	Yes	
2.	No	
What ti	rainings you wish to have more/ more frequently?	
Rescue	technology	
Have yo	ou been familiarized on the operating principles of rescue technology?	
1.	Yes	
2.	No	
Do you	know how to read the screen of fire alarm system?	
1.	Yes	
2.	No	
3.	Not instructed how to use the system	
Do you know how to make disconnection in the fire alarm system?		
1.	Yes	
2.	No	

Do you need further training on using the fire alarm system?		
1. Yes		
2. No		
Competences		
In what following situations you feel like you know how to act in the way demanded?		
1. First-aid extinguishing		
2. Sheltering indoors		
3. Evacuation		
4. First aid		
In what following situation you feel uncertain?		
1. First-aid extinguishing		
2. First-aid		
3. Sheltering indoors		
4. Evacuation		
In what following situations you need more training?		
1. First-aid extinguishing		
2. First-aid		
3. Sheltering indoors		
4. Evacuation		

5. None

Have yo	ou received clear instructions on how to act in exceptional situations?
1.	Yes
2.	No
Are you	aware of the locations of your units' main switches? (water, electricity, ventilation
1.	Yes
2.	No
3.	Partly
Have yo	ou familiarized yourself on your unit's emergency plan?
1.	Yes
2.	No