SPCR 190

Certification rules for vehicle manufacturers with respect to vehicle fire safety

RISE Research Institutes of Sweden AB
Certification

SPCR 190 | 2016-11-30

RISE Research Institutes of Sweden AB (former SP)

The RISE institutes Innventia, SP and Swedish ICT have merged in order to become a stronger research and innovation partner for businesses and society. SP Sveriges Tekniska Forskningsinstitut AB, Corporate Identity Number 556464-6874, has changed it's name to RISE Research Institutes of Sweden AB and will continue its business under the same Corporate Identity Number.

The following document is issued by former SP and adopted by RISE. Where the name SP occurs in the document, read it as RISE.

SPCR 190

Certification rules for

vehicle manufacturers with respect to vehicle fire safety

SP Sveriges Tekniska Forskningsinstitut
SP Technical Research Institute of Sweden
Certifiering - Certification
2016-11-30

Abstract

Certification rules for vehicle manufacturers with respect to vehicle fire safety

The P-certification will enable the manufacturer to certify their fire risk mitigation process.

The fire risk mitigation process can be certified for P-marking by SP Technical Research Institute of Sweden. Issue of a certificate is possible if the company meets the requirements in this document, and that the company is subjected to third party inspection and quality control.

The fire risk management procedure outlined in this document is based on SP Method 5289.

Continuous inspection involves primarily the company's quality control system, together with surveillance inspection by SP. Surveillance inspection is carried out by SP through visits to the company premises. During these visits, SP will be concerned to see that the quality control system is operating as intended. In addition, SP may ask to observe risk assessments carried out on selected products.

Key words: Certification, P-marking, Risk assessment, Risk management, Vehicles, Manufacturers, Quality control, SPCR 190, SP Method 5289

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Borås 2016

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Preface

This document sets out the rules for vehicle manufacturers with regard to fire safety in vehicles. The P-certification will enable the manufacturer to certify their fire risk mitigation process.

Technical requirements provided in section 3 and the requirements concerning surveillance as set out in Sections 4 and 5, have been drawn up by SP. The risk management procedures as set out in Section 3 are based on SP Method 5289. Certification, as described in Section 2, is performed by SP Certification.

Continuous inspection involves quality control by the manufacturer and surveillance inspections by SP. Surveillance inspection is carried out through visits to the company premises and involves assessment of their quality control system. In addition, observation of risk assessments may be carried out on selected vehicles in order to verify that the company's quality control is operating as intended.

The certification rules are based on current standards, but may be revised in future, e.g. to harmonise with European or international standards.

Borås, November 2016

SP Technical Research Institute of Sweden
Certification

Lennart Månsson

1 Introduction

1.1 General

Certification involves confirmation by an independent third party that a company fulfils requirements set out in standards or some other form of specification. Certification by SP is performed by SP Certification, a department that is separate from the testing and inspection departments.

Company's fire risk mitigation process which, after an initial evaluation, is shown to fulfil specified requirements can be certified by SP. This certification is confirmed by issue of a certificate, one of the rights of which is usually permission (under licence) to use a certification symbol. Ongoing inspection/surveillance, consisting of the company's quality control procedures and SP's surveillance inspections, ensures that the requirements relating to the company continue to be fulfilled during the validity period of the certificate.

1.2 Scope

These certification rules apply for vehicle manufacturers with respect to vehicle fire safety. The P-certification will enable the manufacturer to certify their fire risk mitigation process. The fire risk management required in the P-certification is an element of the system of safety engineering functions that evaluate the effects of potential hazards and requires acceptance, control, or elimination of such hazards within the constraints of available resources.

Other certification rules related to/ in same series as SPCR 190:

SPCR 191 **Certification rules for vehicle operators with respect to vehicle fire safety**

SPCR 192 **Certification rules for authorized service centers with respect to vehicle fire safety**

2 Conditions for certification of vehicle manufacturers with respect to vehicle fire safety

2.1 The certification process

2.1.1 General

The certification is composed of the following elements:

1. Fire risk management procedure, SP Method 5289
2. Quality procedures and configuration management
3. Fire safety training program
4. Reporting of thermal events – database
5. Initial assessment of the company's quality control system
6. Annual surveillance inspections

When the requirements are fulfilled, and a written agreement between the company and SP about the extent of the surveillance inspections is signed, a certificate can be issued. The certificate is valid provided that the manufacturers continue to follow the requirements and also that the ongoing inspection continues to operate correctly.
A certified manufacturer may use SPs P-mark.

2.1.2 Application

Application for certification shall be submitted in writing, and shall be accompanied by a description of the company's quality control system with regard to fire safety.

2.1.3 Review of application

When reviewing the application, SP checks that the application is complete and that the application can be handled within SP's certification scope.

If the application is adopted, this is communicated to the customer through an order confirmation being sent to the customer. An evaluation plan is prepared, if it does not already exist. If a subcontractor must be engaged, this is communicated to the customer. The customer is entitled to object to the selected subcontractor.

2.1.4 Evaluation

During the evaluation process, the company's quality control system is checked to ensure that they comply with the requirements specified in this document.
In cases where the documentation shows deficiencies, i.e. does not meet the requirements, the evaluation may be cancelled.

If the results of the evaluation show that the documentation meets the requirements of the specification and that all technical requirements are met, the process proceeds to review and decision.

2.1.5 Review and decision

The evaluation work is reviewed, and following successful results, the process proceeds to the decision phase. When a decision on certification has been taken, a certificate is issued and delivered to the customer.

2.1.6 Period of validity

The validity of the certificate is normally three years.

2.2 Extension of validity period for the certificate issued.

The period may be extended for a maximum of three years at a time. An assessment is made of the measures required for the extension. If no changes are made to the regulations, specifications, etc. the certificate can be extended without any further action, provided that the fire risk mitigation process is unchanged relative to the original certification or the latest revision. Another requirement is that the surveillance inspections have been performed as scheduled and with approved results. This includes that regular fire risk assessments have been performed during the period. See 5.2.

2.3 Marking

The manufacturer is entitled to display SP's certification symbol for marketing purposes. The marking must show manufacturer and number of the certificate.
The marking is only for use in documentation and it may not be attached to any vehicle or other products.

SP’s certification symbol (P-mark)

2.4 Conditions for certificate

2.4.1 Obligation for certificate holders to impart information

Certificate holders are obliged to inform SP Certification about major changes in the management system as well as organisational or operational changes that influence the scope of the certification.
SP Certification decides whether the change necessitates a new assessment. In connection with surveillance audits, SP Certification shall be informed about the changes that have been made since the previous audit as well as events that have affected the company’s products. Certificate holders shall inform SP Certification about significant events, for example, major quality deficiencies, incidents with the company’s products, withdrawals, etc.

2.4.2 Withdrawal of certificate

SP Certification can withdraw a certificate without notice if the holder disobeys the rules for certification, for example, if surveillance audits reveal serious shortcomings. The reason for withdrawal shall be communicated to the holder in writing together with the decision to withdraw the certificate.
Other reasons for withdrawal could be, for example, that the certificate is used in a misleading manner in marketing or that payment to SP Certification has been not made, the holder of the certificate is subject to bankruptcy, has gone into liquidation or has transferred operations. Certificate holders who receive notification that their certificate has been withdrawn are obligated to cease all reference made to the certificate in advertising or other forms of publicity.
It is possible to reinstate a withdrawn certificate pending an investigation and audit. The auditor's scope may, for example, depend on how long the certificate has been withdrawn. A new certification audit is needed if the certificate has been withdrawn for more than a year.

2.4.3 Appeal

An appeal against a decision made by SP Certification shall be made in writing. Measures resulting from the appeal are decided upon by the SP Certification board.

2.4.4 SP's general conditions

In addition to the afore-mentioned conditions for certification, SP's general conditions apply.

3 Requirements

3.1 Technical Requirements

The technical requirements are composed of the following elements:

- Fire risk management
- Fire safety training program
- Quality procedures and configuration management
- Reporting of thermal events – database

3.1.1 Fire risk management in accordance with SP Method 5289

The manufacturer must carry out regular fire risk assessments, which are a systematic study to identify fire hazards, and make decisions for risk elimination, control or acceptance. Fire risk management must be done during the design phase, in the production process as well as on the final vehicle assembly. Reassessments shall be done for all design changes and changes in the manufacturing process.

The risk management procedure shall include:
- risk identification
- risk estimation
- risk evaluation
- risk reduction or risk acceptance

The risk management procedures must be implemented in the manufacturer's own quality procedures to the extent regarded as necessary in order to mitigate the risks.

SP Method 5289 contains both requirements and guidelines on how to perform fire risk management. It is required that the checklists provided in SP Method 5289 is implemented in the company's inspection documents and checkmarked continously during the fire risk assessment process. In addition, it is highly recommended that the guidelines provided are used to facilitate assessment of the fire risks associated with the listed items. The fire risk management reports shall be in compliance with chapter 6 in SP Method 5289.

The scope of SP Method 5289 includes different vehicle types, fuels and designs. Therefore, items in the checklists that are irrelevant for a specific vehicle should be ignored. SP Method 5289 also assumes risk assessment of a complete vehicle, however, relevant sections can be used also for risk assessments of receiving parts, the assembling process or sections of a complete vehicle.

3.1.2 Fire safety training program

Mandatory training of all key personnel involved in design, production and quality control is the basis of the certification and is performed by SP during the certification process. The education includes training in vehicle fire risk management, as well as study of vehicle fire hazards and fire mitigation methods. In addition, the manufacturer shall ensure that all relevant personnel involved in design and production have knowledge of vehicle fire hazards and fire risk management.

3.1.3 Quality procedures and configuration management

The manufacturer must have quality procedures in place to manage and mitigate the risks that arise or are found during production so that the findings are linked to design engineers, production personnel, inspectors and managers, and are resolved properly. Documented procedures for quality control shall conform to chapter 4 in this document.

3.1.4 Reporting of thermal events - database

The manufacturer must have procedures for linking information, data and experience from actual thermal incidents in the field to the design engineers, production personnel, quality control inspectors, other relevant personnel and SP. Data received by SP will be stored confidentially and be used only for research purposes, increasing fire safety of vehicles worldwide.

The manufacturer must have procedures to handle and store the information when receiving information about thermal events on vehicles manufactured by the company. It is recommended to have a policy for when to fully investigate in order to understand the causes of the fire incident.

3.2 Requirement for continuous inspection

Continuous inspection shall ensure that the manufacturer fulfils the requirements in these certification rules.

It shall consist of the company’s quality control system, as described in Chapter 4, complemented by surveillance inspection, performed by SP, as described in Chapter 5.

The extent of the surveillance inspection shall be agreed and set out in a written agreement between the company and SP.

4 Manufacturer's quality control system

The manufacturers shall operate a quality control system to ensure that personnel, strategies and techniques involved in fire safety of vehicles follows the procedures outlined in this document and that new information in this area is incorporated and updated into best practice working procedures.

The manufacturer must have quality procedures in place to manage and mitigate the risks that arise or are found during production so that the findings are linked to design engineers, production personnel, quality control inspectors, managers, etc. and are resolved properly.

Inspection procedures shall be described in a quality manual or corresponding document, and shall fulfil the requirements set out in this section. If the manufacturer has an ISO 9001 quality system that has been certified by an accredited certification body, this can be regarded as fulfilling the following requirements in respect of organisation, management review, document control and corrective actions.

4.1 Fire risk management

The manufacturers must carry out regular fire risk assessments, which are a systematic study to identify fire hazards, and make decisions for their elimination, control or acceptance during all phases of the manufacturing process. Reports shall be in compliance with chapter 6 in SP Method 5289 and saved for future controls.

The procedure described in 3.1.1 must be implemented in the manufacturers own quality procedures and be carried out during all phases of the manufacturing process.

The input from the fire risk assessment will be used for future design improvements, production instructions and routines, enhancements to maintenance documents, operation manuals and practices, replacement cycles of critical components etc. There must be a clear procedure specifying how the risks that are reported or identified during risk assessments are linked to design engineers, production personnel, fleet managers etc. for the purpose of continuous improvements.

4.2 Fire safety training program

The manufacturers shall ensure that all key personnel involved in design, production, and quality control hold training similar to what is given in the certification process in accordance with 3.1.2. All other relevant personnel shall, as well, be trained to ensure knowledge of vehicle fire hazards and fire risk management.

4.3 Reporting of thermal events - database

The manufacturers must have procedures for linking information, data and experience from actual thermal incidents in the field to the design engineers, production personnel, quality control inspectors, other relevant personnel and SP. There must also be procedures to handle and store the information when receiving information about thermal events on vehicles manufactured by the company.

4.4 Quality documents – keeping of records

The manufacturers shall be able to confirm, by means of collecting and retaining relevant documents, that the fire risk mitigation process fulfil specified requirements.

Inspection and fire risk management records shall be kept available for inspection by SP and shall be retained for at least ten years.

5 SP's surveillance inspection

5.1 Execution

Surveillance inspection will be carried out at least once a year in the form of a visit, of which prior warning will not necessarily be given, by SP to the manufacturer. The manufacturers shall provide unrestricted access to SP's representative for performance of the surveillance inspection.

On these visits, SP will inspect to determine whether the company's described quality control system is operating as intended, and shall perform inspection as described in Section 5.2.

Inspection may be performed to a different extent, depending on the type and results of surveillance inspection. This will be set out in the agreement on surveillance inspection.

5.2 Inspection – risk management

On each inspection visit, SP will select and review at least one documented risk assessment, which may include additional inspection of the assessed vehicle, to ensure that risk management have been carried out by the manufacturer in accordance with the mandatory parts of SP Method 5289.

5.3 Surveillance inspection failure

If the manufacturers own inspection procedures fail inspection, the reasons for this failure shall be investigated. The investigation may result in a new surveillance visit and examination of the company's own inspection procedures.

5.4 Reporting

The results of surveillance inspection visits shall be reported in writing to the holder of the certificate.

6 References

- SP Method 5289 - Fire risk management procedure for vehicles
- NFPA 551:2013 - Guide for the Evaluation of Fire Risk Assessments
- SIS/ISO-TR 14121-2:2007 – Safety of machinery - risk assessment, Part 2: practical guidance and examples of methods
- SS-EN ISO/IEC 17065, Certification bodies - General requirements relating to certification of products.
- EN ISO 9001 Quality management systems – Requirements
- SP’s General Conditions

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Key words: Certification, P-marking, Risk assessment, Risk management, Vehicles, Manufacturers, Quality control, SPCR 190, SP Method 5289

SP Sveriges Tekniska Forskningsinstitut
SP Technical Research Institute of Sweden

SPCR 190
Borås 2016

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Preface

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Technical requirements provided in section 3 and the requirements concerning surveillance as set out in Sections 4 and 5, have been drawn up by SP. The risk management procedures as set out in Section 3 are based on SP Method 5289. Certification, as described in Section 2, is performed by SP Certification.

Continuous inspection involves quality control by the manufacturer and surveillance inspections by SP. Surveillance inspection is carried out through visits to the company premises and involves assessment of their quality control system. In addition, observation of risk assessments may be carried out on selected vehicles in order to verify that the company's quality control is operating as intended.

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Borås, November 2016

SP Technical Research Institute of Sweden
Certification

Lennart Månsson

1 Introduction

1.1 General

Certification involves confirmation by an independent third party that a company fulfils requirements set out in standards or some other form of specification. Certification by SP is performed by SP Certification, a department that is separate from the testing and inspection departments.

Company's fire risk mitigation process which, after an initial evaluation, is shown to fulfil specified requirements can be certified by SP. This certification is confirmed by issue of a certificate, one of the rights of which is usually permission (under licence) to use a certification symbol. Ongoing inspection/surveillance, consisting of the company's quality control procedures and SP's surveillance inspections, ensures that the requirements relating to the company continue to be fulfilled during the validity period of the certificate.

1.2 Scope

These certification rules apply for vehicle manufacturers with respect to vehicle fire safety. The P-certification will enable the manufacturer to certify their fire risk mitigation process. The fire risk management required in the P-certification is an element of the system of safety engineering functions that evaluate the effects of potential hazards and requires acceptance, control, or elimination of such hazards within the constraints of available resources.

Other certification rules related to/ in same series as SPCR 190:

SPCR 191 **Certification rules for vehicle operators with respect to vehicle fire safety**

SPCR 192 **Certification rules for authorized service centers with respect to vehicle fire safety**

2 Conditions for certification of vehicle manufacturers with respect to vehicle fire safety

2.1 The certification process

2.1.1 General

The certification is composed of the following elements:

1. Fire risk management procedure, SP Method 5289
2. Quality procedures and configuration management
3. Fire safety training program
4. Reporting of thermal events – database
5. Initial assessment of the company's quality control system
6. Annual surveillance inspections

When the requirements are fulfilled, and a written agreement between the company and SP about the extent of the surveillance inspections is signed, a certificate can be issued. The certificate is valid provided that the manufacturers continue to follow the requirements and also that the ongoing inspection continues to operate correctly.
A certified manufacturer may use SPs P-mark.

2.1.2 Application

Application for certification shall be submitted in writing, and shall be accompanied by a description of the company's quality control system with regard to fire safety.

2.1.3 Review of application

When reviewing the application, SP checks that the application is complete and that the application can be handled within SP's certification scope.

If the application is adopted, this is communicated to the customer through an order confirmation being sent to the customer. An evaluation plan is prepared, if it does not already exist. If a subcontractor must be engaged, this is communicated to the customer. The customer is entitled to object to the selected subcontractor.

2.1.4 Evaluation

During the evaluation process, the company's quality control system is checked to ensure that they comply with the requirements specified in this document.
In cases where the documentation shows deficiencies, i.e. does not meet the requirements, the evaluation may be cancelled.

If the results of the evaluation show that the documentation meets the requirements of the specification and that all technical requirements are met, the process proceeds to review and decision.

2.1.5 Review and decision

The evaluation work is reviewed, and following successful results, the process proceeds to the decision phase. When a decision on certification has been taken, a certificate is issued and delivered to the customer.

2.1.6 Period of validity

The validity of the certificate is normally three years.

2.2 Extension of validity period for the certificate issued.

The period may be extended for a maximum of three years at a time. An assessment is made of the measures required for the extension. If no changes are made to the regulations, specifications, etc. the certificate can be extended without any further action, provided that the fire risk mitigation process is unchanged relative to the original certification or the latest revision. Another requirement is that the surveillance inspections have been performed as scheduled and with approved results. This includes that regular fire risk assessments have been performed during the period. See 5.2.

2.3 Marking

The manufacturer is entitled to display SP's certification symbol for marketing purposes. The marking must show manufacturer and number of the certificate.
The marking is only for use in documentation and it may not be attached to any vehicle or other products.

SP’s certification symbol (P-mark)

2.4 Conditions for certificate

2.4.1 Obligation for certificate holders to impart information

Certificate holders are obliged to inform SP Certification about major changes in the management system as well as organisational or operational changes that influence the scope of the certification.
SP Certification decides whether the change necessitates a new assessment. In connection with surveillance audits, SP Certification shall be informed about the changes that have been made since the previous audit as well as events that have affected the company’s products. Certificate holders shall inform SP Certification about significant events, for example, major quality deficiencies, incidents with the company’s products, withdrawals, etc.

2.4.2 Withdrawal of certificate

SP Certification can withdraw a certificate without notice if the holder disobeys the rules for certification, for example, if surveillance audits reveal serious shortcomings. The reason for withdrawal shall be communicated to the holder in writing together with the decision to withdraw the certificate.
Other reasons for withdrawal could be, for example, that the certificate is used in a misleading manner in marketing or that payment to SP Certification has been not made, the holder of the certificate is subject to bankruptcy, has gone into liquidation or has transferred operations. Certificate holders who receive notification that their certificate has been withdrawn are obligated to cease all reference made to the certificate in advertising or other forms of publicity.
It is possible to reinstate a withdrawn certificate pending an investigation and audit. The auditor's scope may, for example, depend on how long the certificate has been withdrawn. A new certification audit is needed if the certificate has been withdrawn for more than a year.

2.4.3 Appeal

An appeal against a decision made by SP Certification shall be made in writing. Measures resulting from the appeal are decided upon by the SP Certification board.

2.4.4 SP's general conditions

In addition to the afore-mentioned conditions for certification, SP's general conditions apply.

3 Requirements

3.1 Technical Requirements

The technical requirements are composed of the following elements:

- Fire risk management
- Fire safety training program
- Quality procedures and configuration management
- Reporting of thermal events – database

3.1.1 Fire risk management in accordance with SP Method 5289

The manufacturer must carry out regular fire risk assessments, which are a systematic study to identify fire hazards, and make decisions for risk elimination, control or acceptance. Fire risk management must be done during the design phase, in the production process as well as on the final vehicle assembly. Reassessments shall be done for all design changes and changes in the manufacturing process.

The risk management procedure shall include:
- risk identification
- risk estimation
- risk evaluation
- risk reduction or risk acceptance

The risk management procedures must be implemented in the manufacturer's own quality procedures to the extent regarded as necessary in order to mitigate the risks.

SP Method 5289 contains both requirements and guidelines on how to perform fire risk management. It is required that the checklists provided in SP Method 5289 is implemented in the company's inspection documents and checkmarked continously during the fire risk assessment process. In addition, it is highly recommended that the guidelines provided are used to facilitate assessment of the fire risks associated with the listed items. The fire risk management reports shall be in compliance with chapter 6 in SP Method 5289.

The scope of SP Method 5289 includes different vehicle types, fuels and designs. Therefore, items in the checklists that are irrelevant for a specific vehicle should be ignored. SP Method 5289 also assumes risk assessment of a complete vehicle, however, relevant sections can be used also for risk assessments of receiving parts, the assembling process or sections of a complete vehicle.

3.1.2 Fire safety training program

Mandatory training of all key personnel involved in design, production and quality control is the basis of the certification and is performed by SP during the certification process. The education includes training in vehicle fire risk management, as well as study of vehicle fire hazards and fire mitigation methods. In addition, the manufacturer shall ensure that all relevant personnel involved in design and production have knowledge of vehicle fire hazards and fire risk management.

3.1.3 Quality procedures and configuration management

The manufacturer must have quality procedures in place to manage and mitigate the risks that arise or are found during production so that the findings are linked to design engineers, production personnel, inspectors and managers, and are resolved properly. Documented procedures for quality control shall conform to chapter 4 in this document.

3.1.4 Reporting of thermal events - database

The manufacturer must have procedures for linking information, data and experience from actual thermal incidents in the field to the design engineers, production personnel, quality control inspectors, other relevant personnel and SP. Data received by SP will be stored confidentially and be used only for research purposes, increasing fire safety of vehicles worldwide.

The manufacturer must have procedures to handle and store the information when receiving information about thermal events on vehicles manufactured by the company. It is recommended to have a policy for when to fully investigate in order to understand the causes of the fire incident.

3.2 Requirement for continuous inspection

Continuous inspection shall ensure that the manufacturer fulfils the requirements in these certification rules.

It shall consist of the company’s quality control system, as described in Chapter 4, complemented by surveillance inspection, performed by SP, as described in Chapter 5.

The extent of the surveillance inspection shall be agreed and set out in a written agreement between the company and SP.

4 Manufacturer's quality control system

The manufacturers shall operate a quality control system to ensure that personnel, strategies and techniques involved in fire safety of vehicles follows the procedures outlined in this document and that new information in this area is incorporated and updated into best practice working procedures.

The manufacturer must have quality procedures in place to manage and mitigate the risks that arise or are found during production so that the findings are linked to design engineers, production personnel, quality control inspectors, managers, etc. and are resolved properly.

Inspection procedures shall be described in a quality manual or corresponding document, and shall fulfil the requirements set out in this section. If the manufacturer has an ISO 9001 quality system that has been certified by an accredited certification body, this can be regarded as fulfilling the following requirements in respect of organisation, management review, document control and corrective actions.

4.1 Fire risk management

The manufacturers must carry out regular fire risk assessments, which are a systematic study to identify fire hazards, and make decisions for their elimination, control or acceptance during all phases of the manufacturing process. Reports shall be in compliance with chapter 6 in SP Method 5289 and saved for future controls.

The procedure described in 3.1.1 must be implemented in the manufacturers own quality procedures and be carried out during all phases of the manufacturing process.

The input from the fire risk assessment will be used for future design improvements, production instructions and routines, enhancements to maintenance documents, operation manuals and practices, replacement cycles of critical components etc. There must be a clear procedure specifying how the risks that are reported or identified during risk assessments are linked to design engineers, production personnel, fleet managers etc. for the purpose of continuous improvements.

4.2 Fire safety training program

The manufacturers shall ensure that all key personnel involved in design, production, and quality control hold training similar to what is given in the certification process in accordance with 3.1.2. All other relevant personnel shall, as well, be trained to ensure knowledge of vehicle fire hazards and fire risk management.

4.3 Reporting of thermal events - database

The manufacturers must have procedures for linking information, data and experience from actual thermal incidents in the field to the design engineers, production personnel, quality control inspectors, other relevant personnel and SP. There must also be procedures to handle and store the information when receiving information about thermal events on vehicles manufactured by the company.

4.4 Quality documents – keeping of records

The manufacturers shall be able to confirm, by means of collecting and retaining relevant documents, that the fire risk mitigation process fulfil specified requirements.

Inspection and fire risk management records shall be kept available for inspection by SP and shall be retained for at least ten years.

5 SP's surveillance inspection

5.1 Execution

Surveillance inspection will be carried out at least once a year in the form of a visit, of which prior warning will not necessarily be given, by SP to the manufacturer. The manufacturers shall provide unrestricted access to SP's representative for performance of the surveillance inspection.

On these visits, SP will inspect to determine whether the company's described quality control system is operating as intended, and shall perform inspection as described in Section 5.2.

Inspection may be performed to a different extent, depending on the type and results of surveillance inspection. This will be set out in the agreement on surveillance inspection.

5.2 Inspection – risk management

On each inspection visit, SP will select and review at least one documented risk assessment, which may include additional inspection of the assessed vehicle, to ensure that risk management have been carried out by the manufacturer in accordance with the mandatory parts of SP Method 5289.

5.3 Surveillance inspection failure

If the manufacturers own inspection procedures fail inspection, the reasons for this failure shall be investigated. The investigation may result in a new surveillance visit and examination of the company's own inspection procedures.

5.4 Reporting

The results of surveillance inspection visits shall be reported in writing to the holder of the certificate.

6 References

- SP Method 5289 - Fire risk management procedure for vehicles
- NFPA 551:2013 - Guide for the Evaluation of Fire Risk Assessments
- SIS/ISO-TR 14121-2:2007 – Safety of machinery - risk assessment, Part 2: practical guidance and examples of methods
- SS-EN ISO/IEC 17065, Certification bodies - General requirements relating to certification of products.
- EN ISO 9001 Quality management systems – Requirements
- SP’s General Conditions