

Translation from Dutch by H.J. Morgan

## **STEK Inspection Method**

A method of inspection for granting certifications by the Dutch Foundation for the Certification of Refrigeration Engineers

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# **1 Main Lines of Approach**

## **1.1 Background**

STEK certification has been granted since 1993 to companies working in the field of CFCs, HCFCs and HFCs in refrigerating installations. To be eligible for certification, the company must meet the requirements of the Certification Regulations, of which the STEK requirements form part. STEK checks whether an applicant for STEK certification meets the Regulations. If the finding is positive, STEK certification can be granted.

A STEK certification is valid as long as the STEK-certified company meets the requirements of the Regulations. Non-compliance with these requirements leads to withholding or withdrawal of STEK certification.

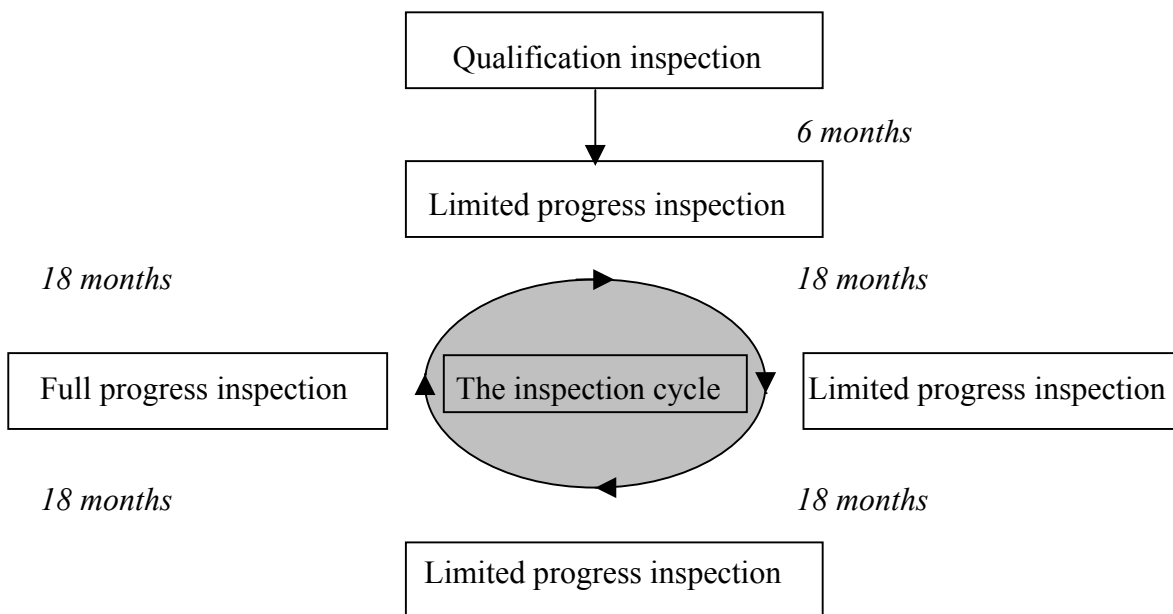
STEK has a method of inspecting compliance with the requirements deriving from the Certification Regulations, especially the STEK requirements. This document explains this method, with attention to the following aspects:

- Structure and frequency of inspection cycle
- Duration of inspections
- Approach and stage plan for each inspection
- Questionnaires for each inspection including criteria for assessing the results of the inspection.

## 1.2 Structure and frequency of inspection cycle

The method of inspection is devised to check applicants for STEK certification and STEK-certified companies in an **inspection cycle**. This cycle consists of two inspections:

- Qualification inspection  
A **qualification inspection** is conducted at each company which applies for STEK certification. This must be passed before certification is granted. The inspection examines whether the company is equipped to meet the STEK requirements during future work in the field of CFCs, HCFCs and HFCs as defined in the STEK requirements.
- Progress inspection  
A progress inspection is carried out regularly at STEK-certified companies. It consists of two parts:
  - Six months after granting STEK certification, a **limited progress inspection** is carried out. If no non-conformities are found during this inspection, the next limited inspection is conducted in six months' time. The limited progress inspection takes place three consecutive times on this basis.
  - The fourth time a **full progress inspection** takes place. This makes up a complete inspection cycle (Fig. 1). Then a new inspection cycle begins with a limited progress inspection after six months.




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Fig. 1 Normal inspection cycle

The progress inspection consists of two parts:

- **Examination of management.**

This examines whether the STEK-certified company properly complies with the STEK requirements in its own management.

. The limited progress inspection checks compliance with a number of **selected** points of the STEK requirements **at random**. These parts involve checking whether these points are present and correct in the company's own management.

. The full progress inspection is a **thorough** check of compliance with **all** parts of the STEK requirements. These parts involve checking whether these points are present and correct in the company's own management.

The inspecting authority also selects the installations for inspection. The required number depends on the number of CFC fitters and is shown in Fig. 3.

- **Examination of installation**

This investigates whether the STEK-certified company properly complies with the STEK requirements in its layout and maintenance of refrigerating installations. The examination of the installation assesses **all** parts of the STEK requirements at the respective installation. The following inspection situations can be identified here:

. For STEK-certified companies working on mobile installations, this inspection is carried out when mobile installations are present during the examination of management practices. The inspecting authority discusses this beforehand with the STEK-certified company.

. For STEK-certified companies working on stationary installations on the same site (e.g. maintenance services), the required number of installations are examined immediately after examination of the management.

. For STEK-certified companies working on stationary installations elsewhere, the required number of installation examinations is carried out later. The selection and timing are decided by the inspecting authority without consulting or notifying the STEK-certified company.

Each qualification and progress inspection uses a standard questionnaire. If it is found, during an inspection, in answer to a specific question, that the company does not meet the STEK requirements, this is treated as a **non-conformity**.

### 1.3 Different frequency after detection of non-conformities

#### *Non-conformities detected by STEK*

Non-conformities found during a progress inspection are handled in different ways. A categorisation is used for this. Each question in the inspection is placed in a category. The categorisation and handling of detected non-conformities is as follows:

- **Category 1**  
These non-conformities are such that it is not (or no longer) possible to grant certification. After the inspector has reported to the STEK Office, the STEK certification is withdrawn. If the company concerned wants to resume working in the field of CFCs, HCFCs and HFCs on refrigerating installations in future, it should apply for new STEK certification.
- **Category 2**  
These non-conformities should be rectified direct by the STEK-certified company. Two months after STEK's report to the company, a **certification inspection** is carried out which investigates how far and how these non-conformities have been rectified. When the non-conformities have not been rectified, STEK will proceed to withdraw the STEK certification. When the non-conformities have actually been rectified<sup>1</sup>, the regular inspection cycle continues. The periods of time applicable for this are **not** suspended during implementation of the certification inspections.
- **Category 3**  
Finally, category 3 non-conformities may be found during examination of management in the limited progress inspection or during examination of the installation. Non-conformities detected in this way must be examined further to reach a final judgment. Within two months of STEK's report to the company, a **certification inspection** is carried out to determine whether these non-conformities are structural (i.e. found in at least one other installation or with another CFC fitter) or incidental (i.e. not occurring at other installations or with other CFC fitters). This also checks whether the non-conformities found have been rectified. If they have not, and they are structural, they are dealt with further as per Category 2. If they are not rectified and seem to be incidental, a second **certification inspection** is carried out after two months, and this is treated as a first certification inspection as per Category 4. If the non-conformities found seem to be rectified, the regular inspection cycle continues. The periods of time applicable here are **not** suspended during certification inspections.
- **Category 4**  
These non-conformities should be rectified by the STEK-certified company within four months. Four months after the progress inspection report, a **certification inspection** is carried out to investigate whether the non-conformities found have

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<sup>1</sup> In certain cases non-conformities may be associated with RLK (Regulations on Leak Detection at Refrigerating Installations), which forms an integral part of the STEK requirements. In this case it may be practically impossible for the STEK-certified company to get round all the installations it maintains in the space of two months and modify them or provide them with the right documents. In such cases rectification may also mean having the necessary changes under way, and implementing them at a significant number of installations. At the first certification inspection, submission of a Action Plan is requested which states how the non-conformities will be rectified at the remaining installations in the short term (up to 9 months). This Action Plan and the stages it contains are assessed by STEK. STEK inspects implementation of the Action Plan by the STEK-certified company at a second certification inspection. The timing of this inspection depends on the planning in the Action Plan and is at STEK's discretion.

been rectified. If they have been rectified, the regular inspection cycle continues. The periods of time applicable here are **not** suspended during certification inspections. If the non-conformities have not been rectified, a new certification inspection is conducted after five months. If the detected non-conformities have still not been rectified then, STEK will proceed to withdraw the STEK certification.

For some non-conformities, carrying out a certification inspection may in practice be considered heavy-handed. If so, an administrative assessment may be made. Depending on circumstances, STEK may decide whether an administrative assessment is feasible/desirable.

Any inspection may detect Category 1 non-conformities whereby certification cannot be granted or STEK has to proceed to withdraw certification. When non-conformities are found to be Categories 2, 3 or 4, STEK carries out certification inspections to check whether they have been rectified.

*Non-conformities detected by third parties*

Certification inspections may also be triggered when non-conformities are found at IMH inspections or after complaints by third parties, at STEK's discretion. These non-conformities are handled using the same categorisation as applies to those found by STEK.

Fig. 2 is a flow-chart showing the full course of the inspection method

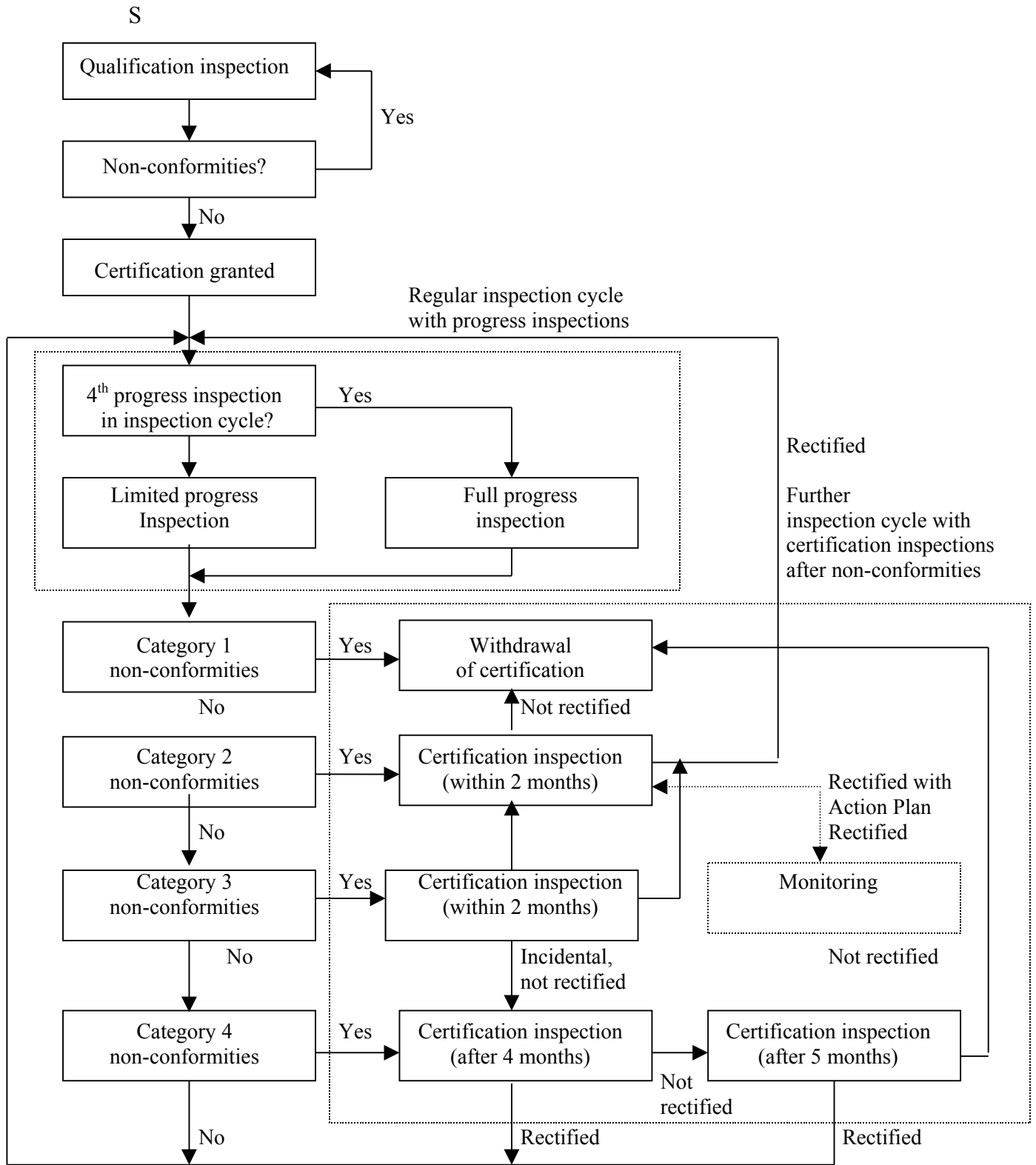


Fig. 2 Flow-chart of Inspection Method



## 1.4 Duration of Inspections

The various inspections each have a separate duration. This duration is shown in Fig. 3. The following aspects may be important here:

- A certification inspection takes four hours.
- A limited progress inspection consists of two parts:
  - . Examination of management, which takes 2 hours
  - . Examination of installation. If the examination can take place on the site of the STEK-certified company, this takes 0 – 2.0 hours per refrigerating installation. If an installation examination is carried out elsewhere, it takes 2.0 hours per refrigerating installation.

At STEK-recognised companies working on mobile refrigerating installations and auto-airco, installation inspections only take place when refrigerating installations are present at the time of the inspection. For other refrigerating installations, at least two installation examinations are carried out. At larger companies, based on the number of CFC fitters working, more installation examinations take place, as per Fig. 3.
- The duration of the full progress inspection is determined similarly to that of the limited progress control, though the examination of management takes longer, because all parts of compliance with the STEK requirement by the management are inspected, investigating directly whether non-conformities in the management are incidental or structural.
- The duration of certification inspections depends on the non-conformities which gave rise to them. The following distinction can be made here:
  - . Certification inspection due to Category 2 or 4 non-conformities found at a progress inspection or a second certification inspection due to a previous certification inspection.
 

The duration and structure of the inspection depends on the non-conformities found at the last inspection. In any case it is investigated whether the non-conformities found have been rectified. It is also checked whether the other aspects are in order. STEK inspects until it has gained a full picture.
  - . Certification inspection due to Category 3 non-conformities requiring further investigation found at a progress inspection.
 

In this case STEK takes a random sample of twice the number of points checked at the progress inspection.

Type of inspection	Time in hours for examination	Number of examinations at each inspection. Number of CFC fitters			
		Up to 10	11 – 25	26 – 50	> 50
Certification inspection	4.0	1	1	1	1
Limited progress inspection STEK-certified companies with installations on the same site (auto airco, maintenance workshop, internal maintenance service)					
Inspection of management per establishment	2.0	1	1	1	1
Examination per installation (if present)	0-2.0 <sup>1</sup>	2	3	4	5
STEK-certified companies with installations elsewhere (service fitter for stationary and mobile)					
Examination of management per establishment	2.0	1	1	1	1
Examination per installation (if present)	2.0	2	3	4	5
STEK-certified companies with installations elsewhere (Service fitter for stationary and mobile)					
Examination of management per establishment:	4.0				
Up to 10 CFC fitters	4.0	1	1	1	1
Over 10 CFC fitters	8.0	1	1	1	1
Examination per installation	2.0	2	3	4	5

<sup>1</sup> The necessary time depends on the type of installation. Auto aircos may generally be inspected during the examination of the management. Internal maintenance services with big installations may take longer (up to 2.0 hours maximum).

Fig. 3 Duration of each inspection and number of examinations per inspection

## 1.5 Aids to inspection

The following sections show the following aids for each inspection

### 1. Approach and stage plan

Each inspection consists of a set approach and stage plan which are followed in the preparation, implementation and reporting of the inspection

### 2. Questionnaires

For each inspection questionnaires have been compiled for use in examinations. There are four different questionnaires:

1. Questionnaire for qualification inspection
2. Questionnaire for limited progress inspection; examination of management
3. Questionnaire for full progress inspection; examination of management
4. Questionnaire for installation examination

## 2 Certification inspection

### 2.1 Approach to certification inspection

This inspection is used when a company applies for STEK certification. It is an inspection of the presence of all necessary points of the STEK requirements in the management of work in the field of CFCs, HCFCs and HFCs. The technical equipment is also assessed.

From documentation looked at in the company, explanations from members of the company management (and possibly fitters) and a tour of the company, the inspector assesses whether the company has taken the necessary measures to meet the STEK requirements. If one or more points are not met (see Questionnaire for Certification Inspection), certification is not granted. In this case the company can reapply for a certification inspection after rectifying the non-conformities found.

## **2.2 Stage plan**

The following aspects must be dealt with before carrying out the certification inspection:

- A. The company should submit an application for STEK certification.
- B. STEK considers whether the applicant meets the requirements deriving from the Regulations.

After this, the certification inspection is carried out using the following approach:

1. STEK commissions the inspecting authority to conduct a certification inspection.
2. The inspecting authority arranges to carry out a certification inspection.
3. The inspecting authority confirms the arrangement in writing to the company.
4. The certification inspection is conducted using the questionnaire (Appendix 1).
5. The inspecting authority discusses the results with the company immediately after completion of the inspection.
6. The inspecting authority reports the results to STEK.
7. STEK decides whether to grant certification.
8. Its conclusions are forwarded to the company concerned.

### **3 Limited progress inspection**

#### **3.1 Approach to limited progress inspection**

This inspection is used as a regular inspection of STEK-certified companies. The management, technical equipment and work carried out in the field of CFCs, HCFCs and HFCs are assessed against selected points of the STEK requirements.

The progress inspection consists of two parts:

- The examination of management, carried out on the STEK-certified company's site. The Questionnaire for the Limited Progress Inspection with Examination of Management (Appendix 2) is used for this. For STEK-certified companies working on stationary installations, data are collected from the required number of installations by means of installation examinations.
- The installation examination, conducted on the site where the STEK-certified company has installed, repaired, inspected or maintained refrigerating installations. The Questionnaire for the Installation Examination (Appendix 4) is used for this.

Based on the results of the limited progress inspection, STEK makes the following decisions:

- If no non-conformities are found, after six months a new limited progress inspection is carried out. Every fourth progress inspection is carried out as a full progress inspection.
- If Category 1 non-conformities are found, STEK certification is withdrawn.
- If Category 2 non-conformities are found, two months after STEK's report to the STEK-certified company, a certification inspection is conducted.
- If Category 3 non-conformities are found, a certification inspection is conducted within two months of STEK's report to the STEK-certified company.
- If Category 4 non-conformities are found, a certification inspection is conducted four months after STEK's report to the STEK-certified company.

### 3.2 Stage plan

The following approach is used when conducting a progress inspection:

1. STEK keeps the timetable for carrying out progress inspections. When a progress inspection has to be conducted under the timetable, STEK gives the order to the inspecting authority
2. About a fortnight in advance, the inspecting authority arranges to carry out a progress inspection. The arrangement which the authority makes is mandatory<sup>2</sup>. As far as possible, an inspection of a STEK-certified company which works on mobile installations at the same site is timed to coincide with the presence of one or more mobile installations there.
3. The inspecting authority confirms the arrangement in writing to the STEK-certified company.
4. The Examination of Management is conducted using the Examination of Management Questionnaire (Appendix 2).
5. Where applicable, the inspecting authority selects a number of installations and gathers the necessary data from these installations with copies of the work log. When the installed and maintained installations are present on the STEK-certified company's site, Installation Examinations are conducted directly using the Questionnaire (Appendix 4).
6. The inspecting authority informs the STEK-certified company of the results of the completed inspection.
7. The inspecting authority later inspects installations elsewhere using the Installation Examination Questionnaire (Appendix 4).
8. The inspecting authority reports the results to STEK.
9. STEK decides whether to proceed with the regular inspection cycle, to carry out a certification inspection after Category 2, 3 or 4 non-conformities have been found, or to withdraw certification after Category 1 non-conformities have been found.
10. STEK forwards the results of the inspection and STEK's decision to the relevant (STEK-certified) company.

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<sup>2</sup> Only in demonstrable cases of force majeure, at STEK's discretion, this may be waived.

## **4 Full progress inspection**

### **4.1 Approach to full progress inspection**

The approach is almost identical to that of the limited progress inspection, but the following differences should be noted.

- The inspection covers all points of the STEK requirements rather than the selected points covered at the limited progress inspection.
- The inspection takes longer (see Fig. 3)
- During the Examination of Management, no Category 3 non-conformities will be found because the inspection investigates directly whether non-conformities are structural or incidental. Therefore more fitters with their technical equipment and working instructions need to be available for the full progress inspection.
- The inspection uses the questionnaires in Appendices 3 and 4.

### **4.2 Stage plan**

The stage plan is identical to that of the limited progress inspection.

## **5 Certification inspection**

### **5.1 Approach to the certification inspection**

This inspection is used if previous inspections have detected non-conformities and checks whether they have been rectified. The approach is almost the same as the full progress inspection. The following differences should be noted:

- The inspection makes a point of checking whether the non-conformities have been rectified. For this purpose it uses the questionnaires in Appendices 3 and 4. In any case the questions relevant to the rectification of the non-conformities noted are selected from these.
- The categorisation of non-conformities is not applicable. The inspection covers whether the non-conformities have been rectified. In this regard STEK makes the following decisions:
  - . The certification inspection shows that the non-conformities have been rectified (categories 2, 3 and 4). The regular inspection cycle continues. The time periods applicable to this are not suspended during the certification inspection.
  - . The certification inspection shows that non-conformities have not been rectified or are structural (Categories 3 and 4). STEK enters the company for a second certification inspection.
  - . The certification inspection shows that incidental non-conformities have not been rectified (Category 3). STEK enters the company for a second certification inspection which is treated as a Category 4 first certification inspection.
  - . The certification inspection shows that non-conformities have not been rectified (category 2 or categories 3 and 4 after a second certification inspection). STEK certification is withdrawn.

### **5.2 Stage plan**

The stage plan is identical to that of the limited and full progress inspection. The one difference to note is that certain stages may be ignored if the inspection of rectification of detected non-conformities only concerns the Examination of Management or Installation Examination.

## **Appendices**

### **STEK inspection method**

A method of inspection for granting STEK certification

## **Appendices**

- I Questionnaire for qualification inspection
- II Questionnaire for limited progress inspection; examination of management
- III Questionnaire for full progress inspection; examination of management
- IV Questionnaire for installation examination



## **I Questionnaire for Qualification Inspection**

This questionnaire contains the questions for assessing compliance with STEK requirements.

Each inspection question has the following features:

- Where applicable, reference is made to the origin of the question in the RLK or STEK requirements.
- Each inspection question has a unique question number.
- Each inspection question is assigned to a category. The following category applies to the Questionnaire for Qualification Inspection:
  - . Category 1. If an answer to an inspection question shows that the relevant STEK requirement is not met, STEK certification is not granted.

## Questionnaire for Qualification Inspection

			<b>Date of inspection</b>	
			Inspector's name	
			Order number	
			STEK registration number	
			Contact person at company	
			Type of company	
			1. Stationary on the same site	
			2. Stationary elsewhere	
			3. Transport refrigerating on same site	
			4. Transport refrigerating elsewhere	
			5. Comfort cooling in vehicles on same site	
			Sector	
			1. Agriculture	
			2. Commercial company refrigerating	
			3. Comfort cooling and air conditioning in buildings	
			4. Comfort cooling in vehicles	
			5. Transport refrigerating in vehicles	
<b>RLK</b>	<b>Stek-Req.</b>	<b>No</b>		<b>Cat</b>
			<b>CFC fitters</b>	
	2.2.1	1.1	Does the company have at least 1 CFC fitter?	1
			<b>CFC policy</b>	
	2.2.1	2.1	Does the company have a policy for work in the field of CFCs, HCFCs and HFCs in refrigeration installations?	1
	2.2.1	2.2	Is the policy (including the STEK and RLK requirements) known to all relevant employees?	1
	2.2.1	2.3	Is the policy adequate?	1
			<b>Refrigerant registration</b>	
	2.2.2	3.1	Is there a system of registration of refrigerants?	1
	2.2.2	3.2	Is this registration for each refrigerant?	1
	2.2.2	3.3	Does the registration show a leak of refrigerants?	1
	2.2.2	3.4	Does the company follow an approach for taking corrective action in case of leaks of refrigerants?	1
			<b>Documents</b>	<b>1</b>
6.2.1		4.1	Has the company provided logbooks?	1
6.2.2				
6.2.3				
6.2.1		4.2	Do the logbooks contain the right data?	1
6.2.2				
6.2.3				
6.2.2		4.3	Are logbook cards provided at mobile installation when the logbook is kept at the manager's premises? (compulsory from 1 July 1995)	1
		4.3	Do the logbook cards contain the right data?	1

7.4.8	4.4	Has the company compiled written evidence of pressure testing?	1
7.4.8	4.5	Does this written evidence of pressure testing contain the right data?	1
7.5.5	4.6	Has the company compiled written evidence of evacuating and charging?	1
7.5.5	4.7	Does this written evidence of evacuating and charging contain the right data?	1
7.3.3	4.8	Has the company compiled written evidence of leakproofing inspection?	1
7.3.3	4.9	Does this written evidence of leakproofing inspection contain the right data?	1
7.1.3, 7.1.4	4.10	Has the company compiled written evidence of installation inspection?	1
7.1.3 7.1.4	4.11	Does this written evidence of installation inspection contain the right data?	1
6.5.5 6.5.6 6.5.7	4.12	Does the company have instruction cards available?	1
6.5.5, 6.5.6, 6.5.7	4.13	Do these instruction cards contain the right data?	1
6.5.1 6.5.2	4.14	Does the company have rating plates available for installations?	1
6.5.1 6.5.2	4.15	Do these rating plates contain the right data?	1
6.5.3, 6.5.4	4.16	Does the company have rating plates for machinery rooms available?	1
6.5.1 6.5.2	4.17	Do these rating plates contain the right data?	1
2.2.1 (9t/m 12)	4.18	Does the company have rating plates for compressors available?	1
6.5.1 6.5.2	4.19	Do these rating plates contain the right data?	1
		<b>Work log</b>	
	2.2.2	5.1 Is there a system for recording work?	1
		<b>Work regulations</b>	
	2.2.1	6.1 Are working regulations available?	1
7.4	2.2.1	6.2 Are there working regulations for blow-off as per RLK?	1
7.5	2.2.1	6.3 Are there working regulations for evacuating as per RLK?	1
4.4.10.6 4.4.10.7	2.2.1	6.4 Are there working regulations for extraction as per RLK?	1
7.5	2.2.1	6.5 Are there working regulations for charging as per RLK?	1
7.1/7.2 7.3	2.2.1	6.6 Are there working regulations for installation inspections as per RLK?	1
6.4	2.2.1	6.7 Are there working regulations for periodic maintenance and preventive inspections as per RLK?	1
	2.2.1	6.8 Do the fitter or fitters have the necessary knowledge of the content of the working regulations?	1

### Equipment

	2.3.1	7.1	Does the fitter have a pressure gauge set available?	1
	2.3.1	7.2	Does the fitter have a thermometer available?	1
6.4.6 7.3.2	2.3.1	7.3	Does the fitter have leak detection apparatus available?	1
	2.3.1	7.4	Does the fitter have weighing equipment of accuracy conforming to STEK requirements available?	1
7.5	2.3.1	7.5	Does the fitter have a vacuum pump of at least 270 Pa capacity available?	1
7.5	2.3.1	7.6	Does the fitter have a vacuum meter capable of reading at least 270 Pa available?	1
	2.3.1	7.7	Does the fitter have an extractor unit available?	1
7.4	2.3.1	7.8	Does the fitter have a relief valve suitable for the required blow-off pressure available?	1
	2.3.1	7.10	Does the fitter have refrigerant return cylinders available?	1
	2.3.1	7.11	Does each fitter have the required technical equipment available if necessary?	1
	2.3.1	7.12	Are all cylinders clearly identifiable by type of refrigerant?	1
	2.3.1	7.13	Are all refrigerants safely stored and transported?	1

**Questionnaire for Qualification Inspection** (for company activities involving installations for comfort cooling in passenger and commercial vehicles of coolant content < 3 kg without self-installed soldered joints)

RLK	Stek-Req.	No	Cat
			<b>Date of inspection</b>
			Inspector's name
			Order number
			STEK registration number
			Contact person at company
			Type of company
			1. Comfort cooling in vehicles on the same site
			Sector:
			1. Comfort cooling in vehicles (without self-installed soldered joints)
			<b>CFC fitters</b>
	2.2.1	1.1	Does the company have at least 1 CFC fitter? 1
			<b>CFC policy</b>
	2.2.1	2.1	Does the company have a policy for work in the field of CFCs, HCFCs and HFCs in refrigeration installations? 1
	2.2.1	2.2	Is the policy (including the STEK and RLK requirements) known to all relevant employees? 1
	2.2.1	2.3	Is the policy adequate? 1
			<b>Refrigerant registration</b>
	2.2.2	3.1	Is there a system of registration of refrigerants? 1
	2.2.2	3.2	Is this registration for each refrigerant? 1
	2.2.2	3.3	Does the registration allow a leak of refrigerants to be traced? 1
	2.2.2	3.4	Does the company follow an approach for taking corrective action in case of leaks of refrigerants? 1
			<b>Documents</b>
7.4.8		4.5	Has the company compiled written evidence of pressure testing? 1
7.4.8		4.6	Does this written evidence of pressure testing contain the right data? 1
7.5.5		4.7	Has the company compiled written evidence of evacuating and charging? 1
7.5.5		4.8	Does this written evidence of evacuating and charging contain the right data? 1
7.3.3		4.9	Has the company compiled written evidence of leakproofing inspection? 1
7.3.3		4.10	Does this written evidence of leakproofing inspection contain the right data? 1
7.1.3 7.1.4		4.11	Has the company compiled written evidence of installation inspection? 1

7.1.3 7.1.4		4.12	Does this written evidence of installation inspection contain the right data?	1
6.5.5 6.5.6 6.5.7		4.13	Does the company have instruction cards available?	1
6.5.5 6.5.6 6.5.7		4.14	Do these instruction cards contain the right data?	1
6.5.1 6.5.2		4.15	Does the company have rating plates available for installations?	1
6.5.1 6.5.2		4.16	Do these rating plates contain the right data?	1
			<b>Work log</b>	
	2.2.2	5.1	Is there a system for recording work?	1
			<b>Work regulations</b>	
	2.2.1	6.1	Are working regulations available?	1
7.4	2.2.1	6.2	Are there working regulations for blow-off as per RLK?	1
7.5	2.2.1	6.3	Are there working regulations for evacuating as per RLK?	1
4.4.10.6 4.4.10.7	2.2.1	6.4	Are there working regulations for extraction as per RLK?	1
7.5	2.2.1	6.5	Are there working regulations for charging as per RLK?	1
7.1/7.2 7.3	2.2.1	6.6	Are there working regulations for installation inspections as per RLK?	1
	2.2.1	6.8	Do the fitter or fitters have the necessary knowledge of the content of the working regulations?	1
			<b>Equipment</b>	1
	2.3.1	7.1	Does the fitter have a pressure gauge set available?	1
	2.3.1	7.2	Does the fitter have a thermometer available?	1
6.4.6 7.3.2	2.3.1	7.3	Does the fitter have leak detection apparatus available?	1
	2.3.1	7.4	Does the fitter have weighing equipment of accuracy conforming to STEK requirements available?	1
7.5	2.3.1	7.5	Does the fitter have a vacuum pump of at least 270 Pa capacity available?	1
7.5	2.3.1	7.6	Does the fitter have a vacuum meter capable of reading at least 270 Pa available?	1
	2.3.1	7.7	Does the fitter have an extractor unit available?	1
7.4	2.3.1	7.8	Does the fitter have a relief valve suitable for the required blow-off pressure available?	1
7.4	2.3.1	7.9	Does the fitter have a nitrogen cylinder with nitrogen available?	1
	2.3.1	7.10	Does the fitter have refrigerant return cylinders available? <sup>3</sup>	1
	2.3.1	7.11	Does each fitter have the required technical equipment available if necessary?	1
	2.3.1	7.12	Are all cylinders clearly identifiable by type of refrigerant?	1
	2.3.1	7.13	Are all refrigerants safely stored and transported?	1

<sup>3</sup> If a recovery installation with cleaning facilities is available, this question is not applicable.

## **II Questionnaire for limited progress inspection and examination of management**

This questionnaire contains the inspection questions for assessing compliance with the STEK requirements.

Each inspection question has the following features:

- Where applicable, reference is made to the origin of the question in the RLK or STEK requirements.
- Each inspection question has a unique question number.
- Each inspection question is assigned to a category. The following categories apply to the Questionnaire for the Limited Progress Inspection and Examination of Management:
  - . Category 1.
  - . Category 2
  - . Category 3
  - . Category 4

## Questionnaire for Limited Progress Inspection and examination of management

			<b>Date of inspection</b>	
			Inspector's name	
			Order number	
			STEK registration number	
			Contact person at company	
			Type of company	
			1. Stationary on the same site	
			2. Stationary elsewhere	
			3. Transport refrigerating on same site	
			4. Transport refrigerating elsewhere	
			5. Comfort cooling in vehicles on same site	
			Sector	
			1. Agriculture	
			2. Industrial and commercial refrigerating	
			3. Airco/air treatment for buildings	
			4. Comfort cooling greater than 3 kg in vehicles	
			5. Refrigerated transport of goods	
			6. Airco split systems	
<b>RLK</b>	<b>Stek-Req.</b>	<b>No</b>		<b>Cat</b>
			<b>CFC fitters</b>	
	2.2.1	1.1	Does the company have at least 1 CFC fitter?	1
	2.2.1	1.2	Does the company have the CFC fitters it states?	4
			<b>CFC policy</b>	
	2.2.1	2.1	Does the company have a policy for work in the field of CFCs, HCFCs and HFCs in refrigeration installations?	4
	2.2.1	2.2	Is the policy (including the STEK and RLK requirements) known to all relevant employees?	2
	2.2.1	2.3	Is the policy adequate?	2
			<b>Refrigerant registration</b>	
	2.2.2	3.1	Is there a system of registration of refrigerants?	1
	2.2.2	3.2	Is this registration for each refrigerant?	2
	2.2.2	3.3	Does the registration allow a leak of refrigerants to be traced?	2
	2.2.2	3.4	Does the company follow an approach for taking corrective action in case of leaks of refrigerants?	2
	2.2.2	3.5	Is the refrigerant registration up-to-date (to within one month)?	2
	2.2.2	3.7	Is the refrigerant turnover for last year known, broken down by type of refrigerant?	4
		3.8	How much refrigerant (in kg) is used (turned over) in year X? <sup>4</sup>	
	2.2.2	3.9	Can the quantity be shown in case of leakage of refrigerants?	2
	2.2.2	3.10	What leakage of refrigerants was there (in kg) in year X? <sup>5</sup>	
	2.2.2	3.11	Have steps been taken to correct the leakage in question 3.9?	2

<sup>4</sup> Note use of each type of refrigerant in 1997 and 1998

<sup>5</sup> Note leakage of each type of refrigerant in 1997 and 1998



	2.2.2	3.12	Can 5 purchases in the refrigerants register taken at random be verified by purchase notes?	2
	2.2.2	3.13	Can 5 removals at random be verified by removal notes?	2
	2.2.2	3.14	Does the company use the registration to track repeated leakage from a specific refrigerating installation?	2
			<b>Work log</b>	
	2.2.2	5.1	Is there a system for recording work?	1
	2.2.2	5.2	Can the work logs and data for the refrigerating installation be supplied for 10 sales selected at random? (note data of refrigerating installations).	2
	2.2.2	5.3	Is the work log completed for each job on a refrigeration installation?	2
		5.4	Are the 10 selected work entries correctly completed?	2
	2.2.2	5.5	Are the following jobs entered in the work log?	2
	2.3.2		- Commissioning of a refrigerating installation	
	2.2.2	5.6	- Preventive inspection	2
	2.3.2			
	2.2.2	5.7	- Periodic maintenance	2
	2.3.2			
	2.2.2	5.8	- Repair	2
	2.3.2			
	2.2.2	5.9	Removal of refrigerants prior to shutdown or decommissioning of a refrigerating installation?	2
	2.3.2			
6.4		5.10	Does the company carry out periodic maintenance and preventive inspections to time where service agreements exist?	2
	2.2.2	5.11	Is the work log up-to-date?	2
	2.2.2	5.12	Are copies of work logs available for the registered refrigerating installations (last year)? (take copies of these away)	2
	2.2.1	5.13	Is work shown in the work logs done by a CFC fitter?	2
			<b>Work regulations</b>	
	2.2.1	6.1	Are working regulations available?	1
7.4	2.2.1	6.2	Are there working regulations for blow-off as per RLK?	2
7.5	2.2.1	6.3	Are there working regulations for evacuating as per RLK?	2
7.1/7.2 7.3	2.2.1	6.6	Are there working regulations for installation inspections as per RLK?	2
6.4	2.2.1	6.7	Are there working regulations for periodic maintenance and preventive inspections as per RLK?	2
	2.2.1	6.8	Do the fitter or fitters have the necessary knowledge of the content of the working regulations?	3
		6.9	Does the fitter work in accordance with company regulations?	3
			<b>Equipment</b>	
6.4.6 7.3.2	2.3.1	7.3	Does the fitter have leak detection apparatus available?	3
	2.3.1	7.4	Does the fitter have weighing equipment of accuracy conforming to STEK requirements available?	3
	2.3.1	7.6	Does the fitter have a vacuum meter capable of reading at least 270 Pa available?	3
7.4	2.3.1	7.8	Does the fitter have a relief valve suitable for the required blow-off pressure available?	3

**Questionnaire for Limited Progress Inspection and examination of management** (for company activities involving installations for comfort cooling in passenger and goods vehicles containing < 3kg refrigerant (except self-installed soldered joints).

			<b>Date of inspection</b>	
			Inspector's name	
			Order number	
			STEK registration number	
			Contact person at company	
			Type of company	
			1 Comfort cooling in vehicles on same site	
			Sector	
			1 Comfort cooling less than 3 kg in vehicles (excluding self-installed soldered joints)	
			<b>CFC fitters</b>	
	2.2.1	1.1	Does the company have at least 1 CFC fitter?	1
	2.2.1	1.2	Does the company have the CFC fitters it states?	4
			<b>CFC policy</b>	
	2.2.1	2.1	Does the company have a policy for work in the field of CFCs, HCFCs and HFCs in refrigeration installations?	4
	2.2.1	2.2	Is the policy (including the STEK and RLK requirements) known to all relevant employees?	2
	2.2.1	2.3	Is the policy adequate?	2
			<b>Refrigerant registration</b>	
	2.2.2	3.1	Is there registration of refrigerants?	1
	2.2.2	3.2	Is this registration for each refrigerant?	2
	2.2.2	3.3	Does the registration allow a leak of refrigerants to be traced?	2
	2.2.2	3.4	Does the company follow an approach for taking corrective action in case of leaks of refrigerants?	2
	2.2.2	3.5	Is the refrigerant registration up-to-date (to within one month)?	2
	2.2.2	3.7	Is the refrigerant turnover for last year known, broken down by type of refrigerant?	4
	2.2.2	3.8	How much refrigerant (in kg) was used (turned over) in year X? <sup>6</sup>	
	2.2.2	3.9	Can the quantity be shown in case of leakage of refrigerants?	2
	2.2.2	3.10	What leakage of refrigerants was there (in kg) in year X? <sup>7</sup>	
	2.2.2	3.11	Have steps been taken to correct the leakage in question 3.9?	2
	2.2.2	3.12	Can 5 purchases in the refrigerants register taken at random be verified by purchase notes?	2
	2.2.2	3.13	Can 5 disposals at random be verified by disposal notes?	2
	2.2.2	3.14	Does the company use the registration to track repeated leakage from a specific refrigerating installation?	2
			<b>Work log</b>	
	2.2.2	5.1	Is there a system for recording work?	1

<sup>6</sup> Note use of each refrigerant in 1997 and 1998

<sup>7</sup> Note leakage of each refrigerant in 1997 and 1998

	2.2.2	5.2	Can the work logs and data for the refrigerating installation be supplied for 10 sales selected at random? (note data of refrigerating installations).	2
		5.3	Is the work log completed for every job on a refrigerating installation?	2
		5.4	Are the 10 selected work registrations correctly entered?	2
	2.2.2	5.4	Are the following jobs entered in the work log?	2
	2.3.2		- Commissioning of a refrigerating installation	
	2.2.2	5.8	- Repair	2
	2.3.2			
	2.2.2	5.9	Disposal of refrigerants prior to shutdown or decommissioning of a refrigerating installation?	2
	2.3.2			
	2.2.2	5.11	Is the work log up-to-date?	2
	2.2.2	5.12	Are copies of work logs available for the registered refrigerating installations (last year)? (take copies of these away)	2
	2.2.1	5.13	Is work shown in the work logs done by a CFC fitter?	2
			<b>Work regulations</b>	
	2.2.1	6.1	Are working regulations available?	1
7.4	2.2.1	6.2	Are there working regulations for blow-off as per RLK?	2
7.5	2.2.1	6.3	Are there working regulations for evacuating as per RLK?	2
7.1/7.2 7.3	2.2.1	6.6	Are there working regulations for installation inspections as per RLK?	2
		6.8	Do the fitter or fitters have the necessary knowledge of the content of the working regulations?	3
		6.9	Does the fitter work in accordance with company regulations?	3
			<b>Equipment</b>	
6.4.6 7.3.2	2.3.1	7.3	Does the fitter have leak detection apparatus available?	3
	2.3.1	7.4	Does the fitter have weighing equipment of accuracy conforming to STEK requirements available?	3
	2.3.1	7.6	Does the fitter have a vacuum meter capable of reading at least 270 Pa?	3
7.4	2.3.1	7.8	Does the fitter have a relief valve suitable for the required blow-off pressure available?	3

### **III Questionnaire for full progress inspection and examination of management**

This questionnaire contains the inspection questions for assessing compliance with the STEK requirements.

Each inspection question has the following features:

- Where applicable, reference is made to the origin of the question in the RLK or STEK requirements.
- Each inspection question has a unique question number.
- Each inspection question is assigned to a category. The following categories apply to the Questionnaire for the Full Progress Inspection and Examination of Management:
  - . Category 1.
  - . Category 2
  - . Category 4

## Questionnaire for Full Progress Inspection and examination of management

			<b>Date of inspection</b>	
			Inspector's name	
			Order number	
			STEK registration number	
			Contact person at company	
			Type of company	
			1. Stationary on the same site	
			2. Stationary elsewhere	
			3. Transport refrigerating on same site	
			4. Transport refrigerating elsewhere	
			5. Comfort cooling in vehicles on same site	
			Sector	
			1. Agriculture	
			2. Industrial and commercial company refrigerating	
			3. Airco/air treatment for buildings	
			4. Comfort cooling greater than 3 kg in vehicles	
			5. Refrigerated transport of goods	
			6. Airco split systems	
<b>RLK</b>	<b>Stek-Req.</b>	<b>No</b>		<b>Cat</b>
			<b>CFC fitters</b>	
	2.2.1	1.1	Does the company have at least 1 CFC fitter?	1
	2.2.1	1.2	Does the company have the required CFC fitters?	4
			<b>CFC policy</b>	
	2.2.1	2.1	Does the company have a policy for work in the field of CFCs, HCFCs and HFCs in refrigeration installations?	4
	2.2.1	2.2	Is the policy (including the STEK and RLK requirements) known to all relevant employees?	2
	2.2.1	2.3	Is the policy adequate?	2
			<b>Refrigerant registration</b>	
	2.2.2	3.1	Is there a system of registration of refrigerants?	1
	2.2.2	3.2	Is this registration for each refrigerant?	2
	2.2.2	3.3	Does the registration allow a leak of refrigerants to be traced?	2
	2.2.2	3.4	Does the company follow an approach for taking corrective action in case of leaks of refrigerants?	2
	2.2.2	3.5	Is the refrigerant registration up-to-date (to within one month)?	2
	2.2.2	3.6	Does the stock shown in the refrigerants register correspond to the actual stock? (calculate and check if possible)	2
	2.2.2	3.7	Is last year's coolant turnover known, broken down by type?	4
		3.8	How much refrigerant (in kg) was used (turned over) in year X? <sup>8</sup>	
	2.2.2	3.9	Can the quantity be shown in case of leakage of refrigerants?	2

<sup>8</sup> Note use in 1997 and 1998 of each type of refrigerant

	3.10	What leakage of refrigerants was there (in kg) in year X? <sup>9</sup>	
2.2.2	3.11	Have steps been taken to correct the leakage in question 3.9?	2
2.2.2	3.12	Can the purchases in the refrigerants register be verified by purchase notes? (check in full)	2
2.2.2	3.13	Can disposals be verified by disposal notes? (check in full)	2
2.2.2	3.14	Does the company use the registration to track repeated leakage from a specific refrigerating installation?	2
		<b>Documents</b>	
6.2	4.1	Has the company provided logbooks?	2
6.2.1			
6.2.2	4.2	Do the logbooks contain the right data?	2
6.2.3			
6.2.2	4.3	Are logbook cards provided at mobile installation when the logbook is kept at the manager's premises? (compulsory from 1 July 1995)	4
	4.4	Do the logbook cards contain the right data?	4
7.4.8	4.5	Has the company compiled written evidence of pressure testing?	4
7.4.8	4.6	Does this written evidence of pressure testing contain the right data?	4
7.5.5	4.7	Has the company compiled written evidence of evacuating and charging?	4
7.5.5	4.8	Does this written evidence of evacuating and charging contain the right data?	4
7.3.3	4.9	Has the company compiled written evidence of leakproofing inspection?	4
7.3.3	4.10	Does this written evidence of leakproofing inspection contain the right data?	4
7.1.3			
7.1.4	4.11	Has the company compiled written evidence of installation inspection?	4
7.1.3			
7.1.4	4.12	Does this written evidence of installation inspection contain the right data?	4
6.5.5			
6.5.6	4.13	Does the company have instruction cards available?	4
6.5.7			
6.5.5			
6.5.6	4.14	Do these instruction cards contain the right data?	4
6.5.7			
6.5.1			
6.5.2	4.15	Does the company have rating plates available for installations?	4
6.5.1			
6.5.2	4.16	Do these rating plates contain the right data?	4
6.5.3			
6.5.4	4.17	Does the company have rating plates for machinery rooms available?	4
6.5.1			
6.5.2	4.18	Do these rating plates contain the right data?	4
2.2.1 (9/12)	4.19	Does the company have rating plates for compressors available?	4

<sup>9</sup> Note leakage in 1997 and 1998 of each type of refrigerant.

6.5.1 6.5.2		4.20	Do these rating plates contain the right data?	4
<b>Work log</b>				
	2.2.2	5.1	Is a work log present?	1
	2.2.2	5.2	Can the work entries and data for the refrigerating installation be supplied for 10 sales selected at random? (note data of refrigerating installations).	2
	2.2.2	5.3	Is the work log completed for each job on a refrigerating installation?	2
		5.4	Are the 10 selected work entries correctly completed?	2
	2.2.2 2.3.2	5.5	Are the following jobs entered in the work log? - Commissioning of a refrigerating installation	2
	2.2.2 2.3.2	5.6	- Preventive inspection	2
	2.2.2 2.3.2	5.7	- Periodic maintenance	2
	2.2.2 2.3.2	5.8	- Repair	2
	2.2.2 2.3.2	5.9	Removal of refrigerants prior to shutdown or decommissioning of a refrigerating installation?	2
6.4		5.10	Does the company carry out periodic maintenance and preventive inspections to time where service agreements exist?	2
	2.2.2	5.11	Is the work log up-to-date?	2
	2.2.2	5.12	Are copies of work logs available for the registered refrigerating installations (last year)? (take copies of these away)	2
	2.2.1	5.13	Is work shown in the work logs done by a CFC fitter?	2
<b>Work regulations</b>				
	2.2.1	6.1	Are working regulations available?	1
7.4	2.2.1	6.2	Are there working regulations for blow-off as per RLK?	2
7.5	2.2.1	6.3	Are there working regulations for evacuating as per RLK?	2
4.4.10.6 4.4.10.7	2.2.1	6.4	Are there working regulations for extraction as per RLK?	2
7.5	2.2.1	6.5	Are there working regulations for charging as per RLK?	2
7.1/7.2 7.3	2.2.1	6.6	Are there working regulations for installation inspections as per RLK?	2
6.4	2.2.1	6.7	Are there working regulations for periodic maintenance and preventive inspections as per RLK?	2
	2.2.1	6.8	Do the fitter or fitters have the necessary knowledge of the content of the working regulations?	2
		6.9	Does the fitter work in accordance with company regulations?	2
<b>Equipment</b>				
	2.3.1	7.1	Does the fitter have a pressure gauge set available?	2
	2.3.1	7.2	Does the fitter have a temperature gauge set available?	2
6.4.6 7.3.2	2.3.1	7.3	Does the fitter have leak detection apparatus available?	2
	2.3.1	7.4	Does the fitter have weighing equipment of accuracy conforming to STEK requirements available?	2
7.5	2.3.1	7.5	Does the fitter have a vacuum pump available of at least 270 Pa capacity?	2

	2.3.1	7.6	Does the fitter have a vacuum meter available which can read at least 270 Pa?	2
	2.3.1	7.7	Does the fitter have an extractor unit available?	2
7.4	2.3.1	7.8	Does the fitter have a relief valve suitable for the required blow-off pressure available?	2
	2.3.1	7.9	Does the fitter have a nitrogen cylinder available with nitrogen?	2
	2.3.1	7.10	Does the fitter have refrigerant return cylinders available?	2
	2.3.1	7.11	Can each fitter have the required technical equipment available if necessary?	2
	2.3.1	7.12	Are all cylinders clearly identifiable by refrigerant type?	2
	2.3.1	7.13	Are refrigerants stored and transported safely?	2





	2.2.2	3.13	Can the disposals at random be verified by disposal notes? (check in full)	2
	2.2.2	3.14	Does the company use the registration to track repeated leakage from a specific refrigerating installation?	2
			<b>Documents</b>	
7.4.8		4.5	Has the company compiled written evidence of pressure testing?	4
7.4.8		4.6	Does this written evidence of pressure testing contain the right data?	4
7.5.5		4.7	Has the company compiled written evidence of evacuating and charging?	4
7.5.5		4.8	Does this written evidence of evacuating and charging contain the right data?	4
7.3.3		4.9	Has the company compiled written evidence of leakproofing inspection?	4
7.3.3		4.10	Does this written evidence of leakproofing inspection contain the right data?	4
7.1.3 7.1.4		4.11	Has the company compiled written evidence of installation inspection?	4
7.1.3 7.1.4		4.12	Does this written evidence of installation inspection contain the right data?	4
6.5.5 6.5.6 6.5.7		4.13	Does the company have instruction cards available?	4
6.5.5 6.5.6 6.5.7		4.14	Do these instruction cards contain the right data?	4
6.5.1 6.5.2		4.15	Does the company have rating plates available for installations?	4
6.5.1 6.5.2		4.16	Do these rating plates contain the right data?	4
			<b>Work log</b>	
	2.2.2	5.1	Is a work log present?	1
	2.2.2	5.2	Can the work entries and data for the refrigerating installation be supplied for 10 sales selected at random? (note data of refrigerating installations).	2
	2.2.2	5.3	Is the work log completed for each job on a refrigerating installation?	2
		5.4	Are the 10 selected work entries correctly completed?	2
	2.2.2, 2.3.2	5.5	Are the following jobs entered in the work log? - Commissioning of a refrigerating installation	2
	2.2.2, 2.3.2	5.8	- Repair	2
	2.2.2, 2.3.2	5.9	- Removal of refrigerants prior to shutdown or decommissioning of a refrigerating installation?	2
	2.2.2	5.11	Is the work log up-to-date?	2
	2.2.2	5.12	Are copies of work logs available for the registered refrigerating installations (last year)? (take copies of these away)	2
	2.2.1	5.13	Is work shown in the work logs done by a CFC fitter?	2
			Work regulations	

	2.2.1	6.1	Are working regulations available?	1
7.4	2.2.1	6.2	Are there working regulations for blow-off as per RLK?	2
7.5	2.2.1	6.3	Are there working regulations for evacuating as per RLK?	2
4.4.10.6, 4.4.10.7	2.2.1	6.4	Are there working regulations for extraction as per RLK?	2
7.5	2.2.1	6.5	Are there working regulations for charging as per RLK?	2
7.1/7.2, 7.3	2.2.1	6.6	Are there working regulations for installation inspections as per RLK?	2
	2.2.1	6.8	Do the fitter or fitters have the necessary knowledge of the content of the working regulations?	2
		6.9	Does the fitter work in accordance with company regulations?	2
<b>Equipment</b>				
	2.3.1	7.1	Does the fitter have a pressure gauge set available?	2
	2.3.1	7.2	Does the fitter have a temperature gauge set available?	2
6.4.6 7.3.2	2.3.1	7.3	Does the fitter have leak detection apparatus available?	2
	2.3.1	7.4	Does the fitter have weighing equipment of accuracy conforming to STEK requirements available?	2
7.5	2.3.1	7.5	Does the fitter have a vacuum pump available of at least 270 Pa capacity?	2
	2.3.1	7.6	Does the fitter have a vacuum meter available which can read at least 270 Pa?	2
	2.3.1	7.7	Does the fitter have an extractor unit available?	2
7.4	2.3.1	7.8	Does the fitter have a relief valve suitable for the required blow-off pressure available?	2
7.4	2.3.1	7.9	Does the fitter have a nitrogen cylinder available with nitrogen?	2
		7.10	Does the fitter have refrigerant return cylinders available? <sup>12</sup>	2
		7.11	Can each fitter have the required technical equipment available if necessary?	2
		7.12	Are all cylinders clearly identifiable by refrigerant type?	2
		7.13	Are refrigerants stored and transported safely?	2

<sup>12</sup> If a recovery installation with cleaning facilities is available, this question is not applicable.

#### **IV Questionnaire for installation examination**

This questionnaire contains the inspection questions for assessing compliance with the STEK requirements.

Each inspection question has the following features:

- Where applicable, reference is made to the origin of the question in the RLK or STEK requirements.
- Each inspection question has a unique question number.
- Each inspection question is assigned to a category. The following categories apply to the Questionnaire for the Installation Examination:
  - . Category 3.
  - . Category 4

## Questionnaire for Installation Examination

			<b>Date of inspection</b>	
			Inspector's name	
			Order number	
			STEK registration number	
			Contact person at company	
			Type of company	
			1. Stationary on the same site	
			2. Stationary elsewhere	
			3. Transport refrigerating on same site	
			4. Transport refrigerating elsewhere	
			5. Comfort cooling in vehicles on same site	
			Sector	
			1. Agriculture	
			2. Industrial and commercial refrigerating	
			3. Airco/air treatment for buildings	
			4. Comfort cooling greater than 3 kg in vehicles	
			6. Refrigerated transport of goods	
			6. Airco split systems	
			Owner/manager	
			Number of refrigeration installation	
			Type of refrigerant	
			Content of refrigerant	
<b>RLK</b>	<b>Stek-Req.</b>	<b>No</b>		<b>Cat</b>
			<b>Document</b>	
6.2.1				
6.2.2		4.21	Is a logbook present at the installation?	3
6.2.3				
6.2.1				
6.2.2		4.22	Are the right data entered in the logbook?	3
6.2.3				
6.2.2		4.23	Is a logbook card present at the installation?	3
6.2.2		4.24	Are the right data entered on the logbook card?	3
		4.25	Does the logbook contain a copy of the work log?	3
		4.26	Are the right data entered in the work log?	3
7.4.8		4.27	Is written evidence of pressure testing present at the installation?	3
7.4.8		4.28	Are the right data entered on the written evidence of pressure testing?	3
7.5.5		4.29	Is there written evidence of evacuating and charging present at the installation?	3
7.5.5		4.30	Are the right data entered on the written evidence of evacuating and charging?	3
7.3.3		4.31	Is written evidence of the leakproofing inspection present at the installation?	3

7.3.3		4.32	Are the right data entered on the written evidence of leakproofing inspection?	3
7.1.3 7.1.4		4.33	Is written evidence of installation inspection present at the installation?	3
7.1.3 7.1.4		4.34	Are the right data entered on the written evidence of installation inspection?	3
6.5.5 6.5.6 6.5.7		4.35	Is an instruction card present at the installation?	3
6.5.5 6.5.6 6.5.7		4.36	Are the right data entered on the instruction card?	3
6.5.1 6.5.2		4.37	Is a rating plate present on the installation?	3
6.5.1 6.5.2		4.38	Are the right data shown on the rating plate?	3
6.5.8 6.5.8		4.39	Is a circuit diagram present at installations of $\geq 3$ kg or with 2 or more vaporisers?	3
6.5.8 6.5.8		4.40	Does the circuit diagram give a correct picture of the actual working configuration of the installation?	3
6.5.3 6.5.4		4.41	Is a rating plate present in the machinery room?	3
6.5.3 6.5.4		4.42	Are the right data shown on the rating plate in the machinery room?	3
2.2.1 (9 t/m 12)		4.43	Is a rating plate with the right data present on the compressor?	3
7.1.5		4.44	Are the right data shown on the rating plate on the compressor?	3
7.1.5		4.45	Is a statement of conformity present at the installation?	3
		4.46	Is the right information shown on the statement of conformity?	3
<b>Work log</b>				
	2.2.2	5.14	Is the work log clearly completed?	3
	2.2.2	5.15	Is a work log present for all work done per job?	3
	2.2.2 2.3.2	5.16	Are the following shown on the work log?	3
			- Commission of a refrigeration installation	
	2.2.2 2.3.2	5.17	- Preventive inspection	3
	2.2.2 2.3.2	5.18	- Periodic maintenance	3
		5.19	- Reporting and justification of delay of repair	3
	2.2.2 2.3.2	5.20	- Disposal of refrigerants prior to shutdown or decommissioning of a refrigerating installation	3
	2.2.2 2.3.2	5.21	- Is the preventive inspection carried out with the right frequency?	3
	2.2.2 2.3.2	5.22	- Is the periodic maintenance carried out with the right frequency?	3
	2.2.2	5.23	Do the copies required at the STEK-certified company correspond to the copies in the logbook?	3

<b>Installation in general</b>			
3.1 6.1.2	8.1	Is the installation in good working order?	3
3.1 6.1.1	8.2	Are the components sufficiently protected from damage?	3
4.2.1 4.2.2	8.3	Is the pipework soundly fastened?	3
2.2.8.10	8.4	Are no flare connections used?	3
<b>Compressor</b>			
7.2	8.5	Are the safety devices checked in the installation inspection?	3
2.2.1.1	8.6	Are there connections for pressure gauges on installations of 10 – 100 kg?	3
2.2.1.2	8.7	Are pressure gauges fitted for each refrigerant circuit to gauge suction and/or compression for an installation $\geq 100$ kg?	3
2.2.1.3 2.2.1.4 2.2.1.7	8.8	Is a compressor with a delivery valve and/or storage volume $\geq 90$ m <sup>3</sup> /h equipped with a high pressure pressurestat?	3
2.2.1.5 2.2.1.6	8.9	Is the positive displacement compressor with delivery valve and/or storage volume $\geq 90$ m <sup>3</sup> /h equipped with a relief valve or rupture disc?	3
<b>Vessels</b>			
2.2.2.2 2.2.2.3	8.10	Are pressure vessels equipped with a relief valve (< 100 l) or safety valve ( $\geq 100$ l)?	3
2.2.2.5	8.11	Are pressure gauges and thermometers attached to pressure vessels equipped with a heating shell?	3
2.2.3.2 2.2.3.3	8.12	Are receivers equipped with a sight glass (< 0.3 m <sup>3</sup> ) or level gauge ( $\geq 0.3$ m <sup>3</sup> )?	3
2.2.3.1 2.2.3.2	8.13	Is the maximum permissible fluid level (80%) shown on the level gauge?	3
2.2.3 2.2.5	8.14	Do fluid level meters comply with RLK?	3
4.4.10.1	8.15	Can the total quantity of refrigerant in part of the installation be compartmentalized, in installations $\geq 10$ kg?	3
4.4.10.5	8.16	Are there at least 2 delivery valves or schröder valves for extraction present at installations $\geq 3$ kg?	3
4.4.10.2	8.17	Are at least 2 delivery valves present so that low and high pressure parts can be separated on installations $\geq 10$ kg?	3
4.4.10.4	8.18	Are block valves present at installations $\geq 1000$ kg?	3
4.4.2	8.19	Do relief valves comply with RLK?	3
4.4.3	8.20	Do safety valves comply with RLK?	3
4.4.4	8.21	Do rupture discs comply with RLK?	3
4.4.2.4	8.22	Is there a delivery valve between the relief device and the part of the installation being protected?	3
4.4.1.7	8.23	Is there no valve between the pressurestats and the compressor?	3
<b>Machinery room</b>			
5.1	8.24	Are installations $\geq 300$ kg located in a machinery room?	3

5.6	8.25	Are at least 5 detection points fitted?	3
5.7	8.26	Is one detection point surface above the floor surface?	3
5.8	8.27	Is one detection point in the ventilation duct?	3
5.9	8.28	Is another inspection lamp or audio alarm fitted outside the machinery room?	3
5.4	8.29	Does the fixed detection equipment meet a sensitivity specification of 100 ppm?	3
6.3	8.30	Is the fixed detection equipment inspected at least twice yearly by a recognized institute?	3
4.4.11.3	8.31	Are alarm and detection equipment connected to a power source separate from the main source?	3
		<b>Miscellaneous</b>	
2.2.7	8.32	Do the permanent pressure gauges comply with RLK?	3
2.2.4	8.33	Do the wall thicknesses of copper piping comply with RLK?	3
2.2.4.5	8.34	Do the notch impact strengths for steel piping comply with RLK?	3
6.4	8.35	Are purge units checked as part of periodic maintenance and preventive inspections?	3
4.4.8.4	8.36	Is vented gas from a purge unit checked for the presence of a maximum of 20% of refrigerant?	3
4.4.8.4	8.37	Do automatic venting devices contain a device for recording operating time?	3



## Questionnaire for Installation Examination

			<b>Date of inspection</b>	
			Inspector's name	
			Order number	
			STEK registration number	
			Contact person at company	
			Type of company	
			1. Comfort cooling in vehicles on same site	
			Sector	
			1. Comfort cooling of vehicles with less than 3 kg (except self-installed soldered joints)	
			<b>Owner/manager</b>	
			<b>Number of refrigeration installation</b>	
			Type of refrigerant	
			Content of refrigerant	
<b>RLK</b>	<b>Stek-Req.</b>	<b>No</b>		<b>Cat</b>
			<b>Documents</b>	
		4.26	Are the right data entered in the work log?	3
7.4.8		4.27	Is written evidence of pressure testing present at the installation?	3
7.4.8		4.28	<b>Are the right data entered on the written evidence of pressure testing?</b>	3
7.5.5		4.29	Is there written evidence of evacuating and charging present at the installation?	3
7.5.5		4.30	Are the right data entered on the written evidence of evacuating and charging?	3
7.3.3		4.31	Is written evidence of the leakproofing inspection present at the installation?	3
7.3.3		4.32	Are the right data entered on the written evidence of leakproofing inspection?	3
7.1.3 7.1.4		4.33	Is written evidence of installation inspection present at the installation?	3
7.1.3 7.1.4		4.34	Are the right data entered on the written evidence of installation inspection?	3
6.5.5 6.5.6 6.5.7		4.35	Is an instruction card present at the installation?	3
6.5.5 6.5.6 6.5.7		4.36	Are the right data entered on the instruction card?	3
6.5.1 6.5.2		4.37	Is a rating plate present on the installation?	3
6.5.1 6.5.2		4.38	Are the right data shown on the rating plate?	3
7.1.5		4.45	Is a statement of conformity present at the installation?	3
7.1.5		4.46	Is the right information shown on the statement of conformity?	3

			<b>Work log</b>	
	2.2.2	5.14	Is the work log clearly completed?	3
	2.2.2	5.15	Is a work log present for all work done per job?	3
	2.2.2	5.16	Are the following shown on the work log?	3
	2.3.2		- commissioning of a refrigeration installation	
6.1.7 6.1.8 6.1.9		5.19	- Reporting and justification of delay of repair	3
	2.2.2 2.3.2	5.20	- Disposal of refrigerants prior to shutdown or decommissioning of a refrigerating installation	3
			<b>Installation in general</b>	
3.1 6.1.2		8.1	Is the installation in good working order?	3
3.1 6.1.1		8.2	Are the components sufficiently protected from damage?	3
4.2.1 4.2.2		8.3	Is the pipework soundly fastened?	3
2.2.8.10		8.4	Are no flare connections used?	3
			<b>Compressor</b>	
7.2		8.5	Are the safety devices checked in the installation inspection?	3
4.4.1.7		8.23	Is there no delivery valve between the pressurestat and the compressor?	3