



# Annex II.2

## Cool Chain Quality Indicator

### CCQI Master Table

# Truck & Trailer Transport

Revision: 2.2

Date: 2009-07-28

## Cool Chain Quality Indicator (CCQI) for Truck & Trailer Transport

Guidance for correct use and completion of this master table, see 4.2.2

ID no.:	Operation / Location:				
CCQI Description	Points	Explanatory Note	Comments	max. Points	Points awarded
<b>A. Organization</b>					
<b>A.1 Instructions and equipment for drivers</b>					
Dedicated instructions are available to drivers concerning:		Instructions may be individual or part of the "Driver's Manual".			
- transport of perishables and temperature sensitive products (PTSP)	No: 0 Yes: 2	Instructions should include compatibility of PTSP.		2	
- loading and unloading of PTSP	No: 0 Yes: 2	Instructions for temperature checks allow the temperature readings to be analyzed later on, i.e. locations for measurements need to be defined.		2	
- temperature checks during transport and loading operations	No: 0 Yes: 2			2	
Drivers are equipped with a temperature measurement probe suitable to check cargo temperature before loading	No: 0 Yes: 6	No temperature checks possible without suitable probes.		6	
			<b>Σ (subtotal) A1</b>	<b>12</b>	
<b>A.2 Route optimization</b>					
Vehicles are equipped with tracking devices for route optimization	2	Use of tracking devices might shorten transport time.		2	

CCQI Description	Points	Explanatory Note	Comments	max. Points	Points awarded
A.3 Actions taken after breakdown					
In case of breakdown of vehicle engine or cooling appliance, cargo care depends on driver's decision / experience.	0	Emergency response plan shall include procedures covering – malfunction of cooling appliance – malfunction of vehicle engine – traffic congestions or other delays – detection of cargo damage with the aim to minimize damage to the cargo		10	
Contact person for emergency response assistance is available by phone / radio during operating hours.	5				
In case of breakdown of vehicle engine or cooling appliance, cargo care will be initiated according to an emergency response plan.	10				
A.4 Training for truck drivers involved in transport of perishables and temperature sensitive products (PTSP)					
Management provides no PTSP-related training	0	Training is particularly important to truck drivers. Training may be conducted by officially licensed organizations or by company internal trainers.		8	
Management provides training on PTSP related subjects occasionally	4				
Management provides PTSP related training according to a training plan including measures for emergency situations	8				
A.5 Technical maintenance of vehicles (truck & trailers)					
Maintenance / repairs are generally conducted to vehicles upon breakdown.	0	Maintenance schedule shall include scope and interval of maintenance including records of maintenance and repairs done.		2	
Maintenance is conducted to vehicles on the basis of planned maintenance schedule.	2				
A.6 Technical maintenance of cooling appliances					
Maintenance / repairs are generally conducted to cooling appliances upon breakdown.	0	Maintenance schedule shall include scope and interval of maintenance including records of maintenance and repairs done.		3	
Maintenance is conducted to cooling appliances on basis of planned maintenance schedule.	3				

CCQI Description	Points	Explanatory Note	Comments	max. Points	Points awarded
<b>A.7 Hygienic maintenance</b>					
Cleaning of vehicles is conducted as deemed necessary by the driver.	0	Hygienic maintenance is mainly related to the internal surfaces of the vehicle body including surfaces exposed to the air flow such as evaporators and air ducting systems, and should be carried out on a regular basis.		3	
Cleaning of vehicles is based on procedures or contractual agreements on hygienic maintenance.	3				
			<b>Σ (subtotal) A</b>	<b>40</b>	

CCQI Description	Points	Explanatory Note	Comments	max. Points	Points awarded
B. Transport equipment / Vehicles					
Points according to separate tables B1 (long distance) or B2 (local distribution) for each type / model of truck or trailer		Number of vehicles of same type / model		Points	
# 1	Long Distance Vehicle Type #1	n <sub>1</sub>		60	
# 2	Long Distance Vehicle Type #2	n <sub>2</sub>		60	
...	...	...		60	
# n	Long Distance Vehicle Type #n	n <sub>n</sub>		60	
# n+1	Local Distribution Vehicle Type #1	n <sub>n+1</sub>		60	
...	...	...		60	
# n+2	Local Distribution Vehicle Type #2	n <sub>n+2</sub>		60	
# n+i	Local Distribution Vehicle Type #i	n <sub>n+i</sub>		60	
Average of truck & trailer fleet		n+i		60	
		Σ (subtotal) B		60	
Σ (total) A+B				100	

## Cool Chain Quality Indicator (CCQI) for Truck & Trailer Transport - Long Distance Vehicles

Guidance for correct use and completion of this master table, see 4.2.2

Vehicle no.:	Vehicle model / type:				
CCQI Description	Points	Explanatory Note	Comments	max. Points	Points awarded
<b>B1 Transport equipment used for long distance and / or international transportation</b> Long distance transportation is defined as transport with normally only one loading and one unloading point					
<b>B1.1 Classification of vehicle insulation</b>					
Transport equipment is only partly or non insulated.	0				
Transport equipment is fully insulated, however capacity of insulation (k-value) is unknown or stated by manufacturer only.	15	Certification in line with ATP or equivalent includes testing of insulation (k-value) of one vehicle of same type and re-testing of in-service vehicles after 6, 9 and 12 years, thus adequate vehicle insulation is verified. For each vehicle an ATP Certificate or equivalent is available.		24	
Transport equipment is fully insulated, capacity of insulation (k-value) is certified by accredited third party when new.	20				
Transport equipment is fully insulated, capacity of insulation (k-value) is certified by accredited third party including regular re-inspections of each vehicle, e.g. according to ATP or equivalent.	24				

CCQI Description	Points	Explanatory Note	Comments	max. Points	Points awarded
B1.2 Cooling appliance					
Vehicle is not equipped with a cooling appliance.	0	Cargo will warm up. Inside temperature is uncontrolled and depends on ambient conditions and time.		24	
Vehicle is equipped with an eutectic system or a liquefied gas system.	12	Operating range of vehicle is limited by time and ambient temperatures.			
Vehicle is equipped with a mechanical refrigeration unit, net cooling capacity is not certified.	20	Cooling capacity is not known. Compressor may be driven by vehicle engine or by an independent diesel engine.			
Vehicle is equipped with a self-sustained mechanical refrigeration unit, net cooling capacity is certified by accredited third party, e.g. according to ATP or equivalent.	24	Availability of sufficient cooling capacity is ensured. The compressor drive needs to be independent from the vehicle engine, e.g. driven by own diesel engine.			
B1.3 Vehicle accessories					
Vehicle is equipped with means for air renewal.	No: 0 Yes: 2	In case of carriage of fruit and vegetables, renewal of air prevents accumulation of ripening gas.		2	
Vehicle with internal body length > 6 m is equipped with an air ducting system.	No: 0 Yes: 3  N.A.: 3	Air ducts for air circulation provide a consistent temperature distribution.  not applicable (N.A.) if body length < 6m.		3	
				Σ (subtotal) B1.3	

CCQI Description	Points	Explanatory Note	Comments	max. Points	Points awarded
B1.4 Temperature monitoring / recording					
Vehicle without permanent thermometer or temperature recorder	0	Monitoring of temperature condition is not possible.		7	
Vehicle is equipped with a thermometer.	1	Thermometer allows only manual temperature readings.			
Vehicle is equipped with a temperature recorder.	5	Temperature recorders provide documentation of the temperature history.			
Vehicle is equipped with a temperature recorder and automatic data transfer to a central office.	7	Automatic data transfer to a central office ensures quick response and decisions to be taken by responsible management in case of malfunctions.			
Σ (subtotal) B1				60	



## Cool Chain Quality Indicator (CCQI) for Truck & Trailer Transport - Local Distribution Vehicles

Guidance for correct use and completion of this master table, see 4.2.2

Vehicle no.:	Vehicle model / type:				
CCQI Description	Points	Explanatory Note	Comments	max. Points	Points awarded
<b>B2 Transport equipment used for local distribution</b> Local distribution is defined as transport with several loading and unloading points					
<b>B2.1 Classification of vehicle insulation</b>					
Transport equipment is only partly or non insulated.	0	Certification in line with ATP or equivalent includes testing of insulation (k-value) of one vehicle of same type and re-testing of in-service vehicles after 6, 9 and 12 years, thus adequate vehicle insulation is verified. For each vehicle an ATP Certificate or equivalent is available.		25	
Transport equipment is fully insulated, however capacity of insulation (k-value) is unknown or stated by manufacturer only.	15				
Transport equipment is fully insulated, capacity of insulation (k-value) is certified by accredited third party when new.	20				
Transport equipment is fully insulated, capacity of insulation (k-value) is certified by accredited third party including regular re-inspections of each vehicle, e.g. according to ATP or equivalent.	25				

## Cool Chain Quality Indicator (CCQI) for Truck & Trailer Transport - Local Distribution Vehicles

Guidance for correct use and completion of this master table, see 4.2.2

Vehicle no.:	Vehicle model / type:				
CCQI Description	Points	Explanatory Note	Comments	max. Points	Points awarded
<b>B2 Transport equipment used for local distribution</b> Local distribution is defined as transport with several loading and unloading points					
<b>B2.1 Classification of vehicle insulation</b>					
Transport equipment is only partly or non insulated.	0	Certification in line with ATP or equivalent includes testing of insulation (k-value) of one vehicle of same type and re-testing of in-service vehicles after 6, 9 and 12 years, thus adequate vehicle insulation is verified. For each vehicle an ATP Certificate or equivalent is available.		25	
Transport equipment is fully insulated, however capacity of insulation (k-value) is unknown or stated by manufacturer only.	15				
Transport equipment is fully insulated, capacity of insulation (k-value) is certified by accredited third party when new.	20				
Transport equipment is fully insulated, capacity of insulation (k-value) is certified by accredited third party including regular re-inspections of each vehicle, e.g. according to ATP or equivalent.	25				

CCQI Description	Points	Explanatory Note	Comments	max. Points	Points awarded
B2.2 Cooling appliance					
Vehicle is not equipped with cooling appliance.	0	Cargo will warm up. Inside temperature is uncontrolled and depends on ambient conditions and time.		20	
Vehicle is equipped with an eutectic system, a liquefied gas system or with a mechanical refrigeration unit, net cooling capacity is not certified.	15	Cooling capacity is not known. Availability of refrigeration might be limited. Compressor may be driven by vehicle engine or by an independent diesel engine.			
Vehicle is equipped with a self-sustained mechanical refrigeration unit, net cooling capacity is certified by accredited third party, e.g. according to ATP or equivalent.	20	Availability of sufficient cooling capacity is ensured. The compressor drive needs to be independent from the vehicle engine, e.g. driven by own diesel engine.			
B2.3 Vehicle accessories					
Vehicle is equipped with separating bulkhead(s).	No: 0 Yes: 2	Separation of cargo prevents cross contamination. Vehicle can be used for different commodities carried in different temperature zones.		2	
Vehicle is equipped with door curtains to prevent temperature loss during loading / unloading.	No: 0 Yes: 4 N.A.: 4	Door curtains are accounted for only when vehicle is designed for temperatures < 0°C. not applicable (N.A.) when vehicle is designed only for temperatures > 0°C.		4	
Vehicle with internal body length > 6 m is equipped with an air ducting system.	No: 0 Yes: 4 N.A.: 4	Air ducts for air circulation provide a consistent temperature distribution. not applicable (N.A.) if body length < 6m.		4	
			Σ (subtotal) B2.3	10	

CCQI Description	Points	Explanatory Note	Comments	max. Points	Points awarded
B2.4 Temperature monitoring / recording					
Vehicle without permanent thermometer or temperature recorder	0	Monitoring of temperature condition is not possible.		5	
Vehicle is equipped with a thermometer.	1	Thermometer allows only manual temperature readings.			
Vehicle is equipped with a temperature recorder.	5	Temperature recorders provide documentation of the temperature history.			
Σ (subtotal) B2				60	