

Commission Directive 2005/78/EC of 14 November 2005 implementing Directive 2005/55/EC of the European Parliament and of the Council on the approximation of the laws of the Member States relating to the measures to be taken against the emission of gaseous and particulate pollutants from compression-ignition engines for use in vehicles, and the emission of gaseous pollutants from positive ignition engines fuelled with natural gas or liquefied petroleum gas for use in vehicles and amending Annexes I, II, III, IV and VI thereto (Text with EEA relevance) (repealed)

Article 1	.....
Article 2	.....
Article 3	.....
Article 4	.....
Article 5	.....

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#### ANNEX I

#### AMENDMENTS TO ANNEXES I, II, III, IV AND VI TO DIRECTIVE 2005/55/EC

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#### ANNEX II

#### PROCEDURES FOR CONDUCTING THE TEST FOR DURABILITY OF EMISSION CONTROL SYSTEMS

1. INTRODUCTION
2. SELECTION OF ENGINES FOR ESTABLISHING USEFUL LIFE DETERIORATION FACTORS
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  - 2.2. ....
  - 2.3. ....
    - 2.3.1. ....
3. ESTABLISHING USEFUL LIFE DETERIORATION FACTORS
  - 3.1. General
  - 3.2. Service accumulation schedule
    - 3.2.1. In-service and dynamometer service accumulation
      - 3.2.1.1. ....
      - 3.2.1.2. ....
      - 3.2.1.3. ....
      - 3.2.1.4. ....
      - 3.2.1.5. ....
      - 3.2.1.6. ....
      - 3.2.1.7. ....

	3.2.1.8. ....
	3.2.1.9. ....
	3.2.2. ....
3.3.	Engine testing
	3.3.1. Start of the service accumulation schedule
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	3.3.1.2. ....
	3.3.2. Service accumulation testing
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	3.3.2.3. ....
3.4.	Reporting
	3.4.1. ....
	3.4.2. ....
3.5.	Determination of deterioration factors
	3.5.1. ....
	3.5.2. ....
	3.5.3. ....
	3.5.4. ....
3.6.	.....
	3.6.1. ....
3.7.	Checking of conformity of production
	3.7.1. ....
	3.7.2. ....
	3.7.3. ....
4.	MAINTENANCE
	4.1. Emission-related scheduled maintenance
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	4.1.2. ....
	4.1.3. ....
	4.1.4. ....
	4.1.5. ....
	4.1.6. ....
	4.1.7. ....
	4.1.7.1. ....
	4.1.7.2. ....
	4.1.7.3. ....
	4.1.7.4. ....
	4.2. Changes to scheduled maintenance
	4.2.1. ....
	4.3. Non-emission-related scheduled maintenance
	4.3.1. ....
	4.4. Maintenance on engines selected for testing over a service accumulation...
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	4.4.2. ....
	4.5. Critical emission-related unscheduled maintenance
	4.5.1. ....

## ANNEX III

### CONFORMITY OF IN-SERVICE VEHICLES/ENGINES

1. GENERAL
  - 1.1. ....
  - 1.2. ....
  - 1.3. ....
  
2. PROCEDURES FOR AUDIT
  - 2.1. ....
  
3. AUDIT PROCEDURES
  - 3.1. ....
    - 3.1.1. ....
    - 3.1.2. ....
    - 3.1.3. ....
    - 3.1.4. ....
    - 3.1.5. ....
    - 3.1.6. ....
    - 3.1.7. ....
    - 3.1.8. ....
    - 3.1.9. ....
    - 3.1.10. ....
      - 3.1.10.1. ....
      - 3.1.10.2. ....
      - 3.1.10.3. ....
      - 3.1.10.4. ....
      - 3.1.10.5. ....
      - 3.1.10.6. ....
    - 3.1.11. ....
      - 3.1.11.1. ....
      - 3.1.11.2. ....
      - 3.1.11.3. ....
      - 3.1.11.4. ....
      - 3.1.11.5. ....
    - 3.1.12. ....
    - 3.1.13. ....
      - 3.1.13.1. ....
  - 3.2. ....
  - 3.3. ....
  - 3.4. ....
  - 3.5. ....
  - 3.6. ....
  - 3.7. ....
  
4. EMISSION TESTS
  - 4.1. ....
  - 4.2. ....
  
5. CONFIRMATORY TESTING
  - 5.1. ....
    - 5.1.1. ....

	5.1.2.	.....
	5.2.	.....
	5.3.	.....
6.	ACTIONS TO BE TAKEN	
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	6.2.	.....
	6.3.	.....
7.	PLAN OF REMEDIAL MEASURES	
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	7.2.	.....
	7.3.	.....
	7.4.	.....
	7.4.1.	.....
	7.4.2.	.....
	7.4.3.	.....
	7.4.4.	.....
	7.4.5.	.....
	7.4.6.	.....
	7.4.7.	.....
	7.4.8.	.....
	7.4.9.	.....
	7.4.10.	.....
	7.4.11.	.....
	7.5.	.....
	7.6.	.....
	7.7.	.....

## ANNEX IV

### ON-BOARD DIAGNOSTIC SYSTEMS (OBD)

1.	INTRODUCTION	
2.	DEFINITIONS	
3.	REQUIREMENTS AND TESTS	
	3.1.	General requirements
	3.1.1.	.....
	3.1.2.	.....
	3.1.2.1.	.....
	3.1.3.	.....
	3.1.4.	.....
	3.2.	OBD Stage 1 requirements
	3.2.1.	.....
	3.2.2.	.....
	3.2.2.1.	.....
	3.2.2.2.	.....
	3.2.2.3.	.....
	3.2.2.4.	.....
	3.2.3.	Major functional failure

	3.2.3.1.	.....
	3.2.3.2.	.....
	3.2.3.3.	.....
	3.2.4.	.....
3.3.	OBD Stage 2 requirements	
	3.3.1.	.....
	3.3.2.	.....
	3.3.2.1	.....
	3.3.2.2	.....
	3.3.2.3	.....
	3.3.2.4	.....
	3.3.2.5	.....
	3.3.3	.....
3.4.	Stage 1 and Stage 2 requirements	
	3.4.1.	.....
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	3.4.1.2.	.....
	3.4.1.3.	.....
	3.4.1.4.	.....
3.5.	OBD operation and temporary disablement of certain OBD monitoring capabilities...	
	3.5.1.	.....
	3.5.1.1.	.....
	3.5.1.2.	.....
	3.5.1.3.	.....
	3.5.1.4.	.....
	3.5.1.5.	.....
	3.5.1.6.	.....
	3.5.2.	.....
3.6.	Activation of malfunction indicator (MI)	
	3.6.1.	.....
	3.6.2.	.....
	3.6.3.	.....
	3.6.4.	.....
	3.6.5.	.....
	3.6.6.	.....
3.7.	Fault code storage	
	3.7.1.	.....
	3.7.2.	.....
3.8.	Extinguishing the MI	
	3.8.1.	.....
	3.8.2.	.....
	3.8.3.	.....
3.9.	Erasing a fault code	
	3.9.1.	.....
	3.9.2.	.....
4.	REQUIREMENTS RELATING TO THE TYPE-APPROVAL OF OBD SYSTEMS	
4.1.	.....	
	4.1.1.	.....
	4.1.1.1.	.....
	4.1.1.2.	.....
	4.1.2.	.....

	4.1.3.	.....
4.2.	Installation requirements	
	4.2.1.	.....
4.3.	Type-approval of an OBD system containing deficiencies	
	4.3.1.	.....
	4.3.2.	.....
	4.3.3.	.....
	4.3.4.	.....
	4.3.5.	.....
	4.3.6.	.....
	4.3.7.	Deficiency period
	4.3.7.1.	.....
	4.3.7.2.	.....
	4.3.7.3.	.....
5.	ACCESS TO OBD INFORMATION	
5.1.	Replacement parts, diagnostic tools and test equipment	
	5.1.1.	.....
	5.1.2.	.....
	5.1.2.1.	.....
	5.1.2.2.	.....
5.2.	Repair information	
	5.2.1.	.....
	5.2.2.	.....
	5.2.3.	.....
6.	DIAGNOSTIC SIGNALS	
	6.1.	.....
	6.2.	.....
	6.3.	.....
	6.4.	.....
	6.5.	.....
	6.6.	.....
	6.7.	.....
	6.8.	.....
	6.8.1.	.....
	6.8.2.	.....
	6.8.3.	.....
	6.8.3.1.	.....
	6.8.4.	.....
	6.8.5.	.....
	6.8.6.	.....

## Appendix 1

### ON-BOARD DIAGNOSTIC (OBD) SYSTEM APPROVAL TESTS

1.	INTRODUCTION	
1.1.	Deteriorated components/systems	
	1.1.1.	.....
	1.1.2.	.....
	1.1.3.	.....

- 1.2. Test principle
  - 1.2.1. ....
- 2. DESCRIPTION OF TEST
  - 2.1. ....
    - 2.1.1. ....
  - 2.2. ....
  - 2.3. ....
- 3. TEST ENGINE AND FUEL
  - 3.1. Engine
  - 3.2. Fuel
- 4. TEST CONDITIONS
- 5. TEST EQUIPMENT
- 6. OBD TEST CYCLE
  - 6.1. ....
  - 6.2. Preconditioning cycle
    - 6.2.1. ....
    - 6.2.2. ....
  - 6.3. OBD system test
    - 6.3.1. Diesel engines and vehicles equipped with a diesel engine
      - 6.3.1.1. ....
      - 6.3.1.2. ....
      - 6.3.1.3. ....
      - 6.3.1.4. ....
      - 6.3.1.5. ....
      - 6.3.1.6. ....
      - 6.3.1.7. ....
      - 6.3.1.8. ....

## ANNEX V

### APPROVAL CERTIFICATE NUMBERING SYSTEM

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## ANNEX VI

### Measurement of smoke opacity

- 1. INTRODUCTION
  - 1.1. ....
- 2. SYMBOL OF THE CORRECTED ABSORPTION COEFFICIENT
  - 2.1. ....
  - 2.2. ....
  - 2.3. ....

Figure 1

- 3. SPECIFICATIONS AND TESTS
  - 3.1. ....
  - 3.2. ....
- 4. TECHNICAL REQUIREMENTS
  - 4.1. ....
  - 4.2. ....
    - 4.2.1. ....
    - 4.2.2. ....
  - 4.3. ....
    - 4.3.1. ....
    - 4.3.2. ....
  - 4.4. ....
    - 4.4.1. ....
    - 4.4.2. ....

## ANNEX VII

### Requirements for the type-approval of s.i. engines fuelled by petrol

#### PART 1

##### Carbon monoxide emission test

- 1. INTRODUCTION
  - 1.1. ....
  - 1.2. ....
- 2. GENERAL REQUIREMENTS
  - 2.1. ....
  - 2.2. ....
  - 2.3. ....
- 3. TECHNICAL REQUIREMENTS
  - 3.1. ....
  - 3.2. ....

#### PART 2

##### Verifying emissions of crankcase gases

- 1. INTRODUCTION
  - 1.1. ....
  - 1.2. ....
- 2. GENERAL REQUIREMENTS
  - 2.1. ....
- 3. TECHNICAL REQUIREMENTS
  - 3.1. ....