



**REPUBLIC OF ALBANIA**  
**COUNCIL OF MINISTERS**

**DECISION**

*(Draft 3, Version 1 dated 23.04.2014)*

No. \_\_\_\_\_, date \_\_\_\_\_

**“ON MEASURES OF THE CONTROL OF VOLATILE ORGANIC COMPOUND  
(VOC) EMISSIONS RESULTING FROM THE STORAGE OF PETROL AND ITS  
DISTRIBUTION FROM TERMINALS TO SERVICE STATIONS”<sup>1</sup>**

Pursuant to Article 100 of the Constitution and to paragraph “c” of Article 14 of the draft 3, version 3 of the Law no \_\_\_\_, dated \_\_\_\_ “On ambient air quality and cleaner air”, upon proposal of Minister of Environment and the Minister of Energy and Industry, the Council of Ministers

**DECIDED**

**I. GENERAL PROVISIONS**

1. The purpose of this Decision is to reduce the amount of petrol vapour emitted to the atmosphere during the storage, loading and transport of petrol from one terminal to another or from a terminal to a service station by setting the relevant measures.
2. The scope of this Decision shall cover the operations, installations, vehicles and vessels used for the operations referred in paragraph 1.

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- 31994L0063 European Parliament and Council Directive 94/63/EC of 20 December 1994 on the control of volatile organic compound (VOC) emissions resulting from the storage of petrol and its distribution from terminals to service stations Official Journal L 365, 31/12/1994 P. 0024 - 0033
- 31991L0692 Council Directive 91/692/EEC of 23 December 1991 standardizing and rationalizing reports on the implementation of certain Directives relating to the environment (Article 5) Official Journal L 377 , 31/12/1991 P. 0048 - 0054

## II. DEFINITIONS

3. For the purpose of this Decision:
  - a. “**NEA**” shall mean the National Environment Agency according to the Law no.10431, date 9.6.2011 “On environment protection”;
  - b. “**vessel**” shall mean an inland waterway vessel as defined in.....;
  - c. “**REA**” shall mean the Regional Environment Agency according to the Law no.10431, date 9.6.2011 “On environment protection”;
  - d. “**vapours**” shall mean any gaseous compound which evaporates from petrol;
  - e. “**petrol**” shall mean any petroleum derivative, with or without additives, having a Reid vapour pressure of 27,6 kilopascals or more, which is intended for use as a fuel for motor vehicles, except liquefied petroleum gas (LPG);
  - f. “**existing**” petrol storage installations, loading installations, service stations and mobile containers shall mean such installations, service stations and mobile containers which were in operation before the date referred to in Paragraph 38 or for which an individual construction permit or operating permit, where required by specific legislation, was granted before the date referred to in Paragraph 38;
  - g. “**new**” in relation to petrol storage installations, loading installations, service stations and mobile containers shall mean such installations, service stations and mobile containers which are not covered by paragraph (g) of this section;
  - h. “**storage installation**” shall mean any stationary tank at a terminal used for the storage of petrol;
  - i. “**loading installation**” shall mean any facility at a terminal at which petrol can be loaded onto mobile containers. Loading installations for road tankers comprise one or more 'gantries`;
  - j. “**SIEFW**” shall mean the State Inspectorate of Environment, Forests and Water according to Decision No.46, date 29.1.2014 “On establishment, organization and functioning of State Inspectorate of Environment, Forests and Water”;
  - k. “**mobile container**” shall mean any tank, transported by road, rail or waterways used for the transfer of petrol from one terminal to another or from a terminal to a service station;
  - l. “**gantry**” shall mean any structure at a terminal at which petrol can be loaded on to a single road tanker at any one time.
  - m. “**intermediate storage of vapors**” shall mean the intermediate storage of vapors in a fixed roof tank at a terminal for later transfer to and recovery at another terminal. The transfer of vapors from one storage installation to another at a terminal shall not be considered as intermediate storage of vapour within the meaning of this Decision;
  - n. “**Minister**” shall mean the minister in charge of environment protection;
  - o. “**ministry**” shall mean the ministry in charge of environment protection;
  - p. “**vapour-recovery unit**” shall mean equipment for the recovery of petrol from vapours including any buffer reservoir systems at a terminal;
  - q. “**throughput**” shall mean the largest total annual quantity of petrol loaded from a storage installation at a terminal or from a service station into mobile containers during the three preceding years;

- r. “**service station**” shall mean any installation where petrol is dispensed to motor vehicle fuel tanks from stationary storage tanks;
- s. “**terminal**” shall mean any facility which is used for the storage and loading of petrol onto road tankers, rail tankers, or vessels, including all storage installations on the site of the facility;
- t. “**target reference value**” shall mean the guideline given for the overall assessment of the adequacy of technical measures in the Annexes and is not a limit value against which the performance of individual installations, terminals and service stations will be measured;

### **III. STORAGE INSTALLATIONS AT TERMINALS**

- 4. The target reference value of the total annual loss of petrol resulting from loading and storage at each storage installation at terminals is 0,01 % of the throughput weight by weight (w/w).
- 5. The operators, in order to reduce the total annual loss of petrol resulting from loading and storage at each storage installation at terminals below the reference value referred in paragraph 4, shall design and/or procure and operate storage installations that are in accordance with the technical provisions of Annex I.
- 6. Without prejudice of paragraph 5, the minister and the minister responsible for health through a Joint Ministerial Order, based on the results of air quality monitoring and the state of public health shall define, as appropriate, the geographic areas where, due to specific conditions, for the protection of human health or the environment, technical provisions referred in paragraph 5 must be more stringent than those established in Annex I.
- 7. NEA/REA, when issuing the environmental permit shall set specific technical provisions for the geographical areas referred in paragraph 6.
- 8. SIEFW shall inform the minister of any existing measures or of any special measures referred to in this chapter which they contemplate taking and of their grounds for taking them.
- 9. The provisions of paragraphs 4 to 8 shall apply:
  - (a) for new installations starting from the date referred to in Paragraph 38;
  - (b) for existing installations
    - i. if the throughput loaded at a terminal is greater than 50 000 tonnes/year - starting 3 years from the date referred to in Paragraph 38;
    - ii. if the throughput loaded at a terminal is greater than 25 000 tonnes/year - starting 6 years from the date referred to in Paragraph 38;
  - (c) for all other existing storage installations at terminals - starting 9 years from the date referred to in Paragraph 38.
- 10.1 The Minister may approve a list of special landscape areas that need protection from the VoC.

### **IV. LOADING AND UNLOADING OF MOBILE CONTAINERS AT TERMINALS**

- 10. The target reference value of the total annual loss of petrol resulting from loading and unloading of mobile containers at terminals is 0,005 w/w % of the throughput.

11. The operators, in order to reduce the total annual loss of petrol resulting from loading and unloading of mobile containers at terminals below the reference value referred in paragraph 10, shall design and/or procure and operate loading and unloading equipment that are in accordance with the technical provisions of Annex II.
12. Without prejudice of paragraph 11, the minister and the minister responsible for health, through a Joint Ministerial Order, based on the results of air quality monitoring and the state of public health shall define, as appropriate, the geographic areas where, due to specific conditions, for the protection of human health or the environment, technical provisions referred in paragraph 11 must be more stringent than those established in Annex II.
13. NEA/REA, when issuing the environmental permit shall set specific technical provisions for the geographical areas referred in paragraph 12.
14. SIEFW shall inform the Minister of any existing measures or of any special measures referred to in this chapter which they contemplate taking and of their grounds for taking them.
15. The operators of all terminals with loading facilities for road tankers shall be equipped with at least one gantry which meets the specifications for bottom-loading equipment laid down in Annex IV.
16. The provisions of paragraphs 10 to 15 shall apply:
  - (a) for new terminals for loading onto road tankers, rail tankers and/or vessels – starting from the date referred to in Paragraph 38;
  - (b) for existing terminals for loading onto
    - i. road tankers, rail tankers and/or vessels if the throughput is greater than 150 000 tonnes/year - starting 3 years from the date referred to in Paragraph 38;
    - ii. road tankers and rail tankers if the throughput is greater than 25 000 tonnes/year – starting 6 years from the date referred to in Paragraph 38;
  - (c) for all other existing loading installations at terminals for loading onto road tankers and rail tankers – starting 9 years from the date referred to in Paragraph 38.
17. For all road tanker loading gantries at all terminals unless exempted under the terms of paragraph 18 the requirements for bottom-loading equipment set in Annex IV shall apply starting 9 years after the date referred to in Paragraph 38.
18. By way of derogation, paragraphs 10 to 15 and 17 shall not apply:
  - a. to existing terminals with a throughput of less than 10 000 tonnes/year and;
  - b. to new terminals with a throughput of less than 5 000 tonnes/year located in small remote islands.
19. The minister shall provide information on the terminals concerned by such a derogation in the report referred to in chapter VII.

## V. **Mobile containers**

20. The operator shall design and/or procure and operate mobile containers that are in accordance with the following requirements:
  - (a) Their residual vapours are retained in the container after unloading of petrol;
  - (b) the ones that supply petrol to service stations and terminals accept and retain return vapours from the storage installations at the service stations or terminals.

For rail tankers this is only required if they supply petrol to service stations or to terminals where intermediate storage of vapours is used;

- (c) except for release through the pressure relief valves, the vapours mentioned in subparagraphs (a) and (b) are retained in the mobile container until reloading takes place at a terminal.

If after the unloading of petrol the mobile container is subsequently used for products other than petrol, in so far as vapour recovery or intermediate storage of vapours is not possible, ventilation may be permitted in a geographical area where emissions are unlikely to contribute significantly to environmental or health problems;

- (d) regular tests for vapour tightness shall be carried for road tankers
- (e) periodical inspections for correct functioning shall be carried to vacuum/pressure valves on all mobile containers.

21. The provisions of paragraph 20 shall apply:

- (a) for new road tankers, rail tankers and vessels – starting from the date referred to in Paragraph 38;
- (b) for existing rail tankers and vessels if loaded at a terminal to which the requirement of paragraph 20 applies – starting 3 years from the date referred to in Paragraph 38;
- (c) for existing road tankers - when retrofitted for bottom loading in accordance with the specifications laid down in Annex IV.

22. By way of derogation, the provisions of paragraph 20, subparagraphs (a), (b) and (c) shall not apply to losses of vapours resulting from measuring operations using dipsticks in relation to:

- (a) existing mobile containers; and
- (b) new mobile containers which come into operation during the 4 years following the date referred to in Paragraph 38.

## **VI. Loading into storage installations at service stations**

23. The target reference value of the total annual loss of petrol resulting from loading into storage installations at service stations is 0,01 w/w % of the throughput.

24. The operators, in order to reduce the total annual loss of petrol resulting from loading into storage installations at service stations below the reference value referred in paragraph 23, shall design and /or procure and operate loading and unloading equipment that are in accordance with the technical provisions of Annex III.

25. Without prejudice of paragraph 24, the minister and the minister responsible for health, based on the results of air quality monitoring and the state of public health shall define, as appropriate, the geographic areas where, due to specific conditions, for the protection of human health or the environment, technical provisions referred in paragraph 24 must be more stringent than those established in Annex III.

26. NEA/REA, when issuing the environmental permit shall set specific technical provisions for the geographical areas referred in paragraph 25.

27. SIEFW shall inform the Minister of any existing measures or of any special measures referred to in this chapter which they contemplate taking and of their grounds for taking them.
28. The provisions of paragraphs 23 to 27 shall apply:
  - (a) for new service stations - starting from the date referred to in Paragraph 38;
  - (b) for existing service stations with a throughput
    - i. greater than 1 000 m<sup>3</sup>/year – starting 3 years from the date referred to in Paragraph 38
    - ii. of whatever value, when they are located under permanent living quarters or working areas – starting 3 years from the date referred to in Paragraph 38
    - iii. greater than 500 m<sup>3</sup>/year - starting 6 years from the date referred to in Paragraph 38;
  - (c) for all other existing service stations - starting 9 years from the date referred to in Paragraph 38.
29. By way of derogation, paragraphs 23 to 28 shall not apply to service stations with a throughput of less than 100 m<sup>3</sup>/year.
30. By way of derogation, paragraphs 23 to 27 shall not apply to service stations with a throughput of less than 500 m<sup>3</sup>/year, where the service station is located in a geographical area or on a site where vapour emissions are unlikely to contribute significantly to environmental or health problems.
31. The minister and minister responsible for health based on the results of air quality monitoring and the state of public health shall define, as appropriate, the geographic areas referred in paragraph 30.
32. The minister shall provide information on the details of the areas within which they intend to grant such derogation and subsequently of any changes to such areas in the reporting referred to in chapter VII.

## **VII. Monitoring and reporting**

33. SIEFW shall prepare a 3 annual report on the implementation of this Decision and deliver it to the Minister.
34. The report shall be delivered within 6 months of the end of the 3 year period covered by it.
35. The first report shall cover the 3 year period following the date referred in paragraph 38.
36. The minister, through a Ministerial Guideline, shall approve the format of the report referred in paragraph 33.

## **VIII. COMPETENT AUTHORITIES**

37. The competent authorities for the implementation of this Decision are:

- a. The ministry
- b. The ministry responsible for health
- c. NEA/REA
- d. The SIEFW

**IX. Entry into force**

**38.** This Decision shall enter into force 5 years after its publication in the Official Journal

**PRIME MINISTER  
EDI RAMA**

## ANNEX I

### REQUIREMENTS FOR STORAGE INSTALLATIONS AT TERMINALS

1. The external wall and roof of tanks above ground must be painted in a colour with a total radiant heat reflectance of 70 % or more. These operations may be programmed so as to be carried out as part of the usual maintenance cycles of the tanks within a period of 3 years.  
The minister may grant a derogation from this provision where required for the protection of special landscape areas which have been designated following paragraph 10.1 of this Decision.  
This provision shall not apply to tanks linked to a vapour recovery unit which conforms with the requirements set out in Annex II, point 2.
2. Tanks with external floating roofs must be equipped with a primary seal to cover the annular space between the tank wall and the outer periphery of the floating roof and with a secondary seal fitted above the primary seal. The seals should be designed to achieve an overall containment of vapours of 95 % or more as compared to a comparable fixed-roof tank with no vapour-containment controls (that is a fixed-roof tank with only vacuum/pressure relief valve).
3. All new storage installations at terminals, where vapour recovery is required according to paragraph 4 of this Decision (see Annex II) must be either:
  - a. fixed-roof tanks connected to the vapour recovery unit in conformity with the requirements of Annex II; or
  - b. designed with a floating roof, either external or internal, equipped with primary and secondary seals to meet the performance requirements set down in point 2.
4. Existing fixed-roof tanks must either:
  - a. be connected to a vapour-recovery unit in conformity with the requirements of Annex II; or
  - b. have an internal floating roof with a primary seal which should be designed to achieve an overall containment of vapours of 90 % or more in relation to a comparable fixed-roof tank with no vapour controls.
5. The requirements for vapour-containment controls mentioned under points 3 and 4 do not apply to fixed-roof tanks at terminals, where intermediate storage of vapours is permitted according to Annex II, point 1.



**ANNEX II**  
**REQUIREMENTS FOR LOADING AND UNLOADING INSTALLATIONS AT**  
**TERMINALS**

1. Displacement vapours from the mobile container being loaded must be returned through a vapour-tight connection line to a vapour recovery unit for regeneration at the terminal.

This provision does not apply to top-loading tankers as long as that loading system is permitted.

At terminals which load petrol onto vessels, a vapour incineration unit may be substituted for a vapour recovery unit if vapour recovery is unsafe or technically impossible because of the volume of return vapour. The requirements concerning atmospheric emissions from the vapour recovery unit shall also apply to the vapour incineration unit.

At terminals with a throughput of less than 25 000 tonnes/year, intermediate storage of vapours may be substituted for immediate vapour recovery at the terminal.

2. The mean concentration of vapours in the exhaust from the vapour recovery - unit corrected for dilution during treatment - must not exceed 35 g/normal cubic metre (Nm<sup>3</sup>) for any one hour.

SIEFW must ensure that the measurement and analysis methods and their frequency are established.

The measurements must be made over the course of one full working day (seven hours minimum) of normal throughput.

Measurements may be continuous or discontinuous. If discontinuous measurements are employed, at least four measurements per hour must be made.

The overall measurement error due to the equipment used, the calibration gas and the procedure used must not exceed 10 % of the measured value.

The equipment used must be capable of measuring concentrations at least as low as 3 g/Nm<sup>3</sup>.

The precision must be at least 95 % of the measured value.

3. The SIEFW must inspect regularly for leaks the connection lines and pipe installations and enforce the necessary measures.
4. The operators must ensure that loading operations are shut down at the gantry in the case of a leak of vapour. Equipment for such shutdown operations must be installed at the gantry.
5. Where top-loading of mobile containers is permissible, the outlet of the loading arm must be kept near the bottom of the mobile container, in order to avoid splash loading.

### **ANNEX III**

#### **REQUIREMENTS FOR LOADING AND STORAGE INSTALLATIONS AT SERVICE STATIONS AND TERMINALS WHERE THE INTERMEDIATE STORAGE OF VAPOURS IS CARRIED OUT**

Vapours displaced by the delivery of petrol into storage installations at service stations and in fixed-roof tanks used for the intermediate storage of vapours must be returned through a vapour-tight connection line to the mobile container delivering the petrol. Loading operations may not take place unless the arrangements are in place and properly functioning.

**ANNEX IV**  
**SPECIFICATIONS FOR BOTTOM-LOADING, VAPOUR COLLECTION AND**  
**OVERFILL PROTECTION OF EUROPEAN ROAD TANKERS**

**1. Couplings**

1.1. The liquid coupler on the loading arm must be a female coupler which must mate with a 4-inch API (101,6 mm) male adapter located on the vehicle as defined by:

- API Recommended Practice 1004 Seventh Edition November 1988.

Bottom loading and vapour recovery for MC-306 tank motor vehicles (Section 2.1.1.1 - Type of adapter used for bottom loading)

1.2. The vapour-collection coupler on the loading-gantry vapour-collection hose must be a cam-and-groove female coupler which must mate with a 4-inch (101,6 mm) cam-and-groove male adapter located on the vehicle as defined by:

- API Recommended Practice 1004 Seventh Edition November 1988.

Bottom loading and vapour recovery for MC-306 tank motor vehicles (Section 4.1.1.2 - Vapour-recovery adapter)

**2. Loading conditions**

2.1. The normal liquid-loading rate must be 2 300 litres per minute (maximum 2 500 litres per minute) per loading arm.

2.2. When the terminal is operating at peak demand, its loading gantry vapour collection system, including the vapour-recovery unit, is allowed to generate a maximum counterpressure of 55 millibar on the vehicle side of the vapour-collection adapter.

2.3. All approved bottom-loading vehicles will carry an identification plate which specified the maximum permitted number of loading arms which may be operated simultaneously whilst ensuring that no vapours are released via the compartment P and V valves, when the maximum plant back pressure is 55 millibar as specified in 2.2.

**3. Connection of vehicle earth/overflow detection**

The loading gantry must be equipped with an overflow-detection control unit which, when connected to the vehicle, must provide a fail-safe permission signal to enable loading, providing no compartment-overflow sensors detect a high level.

3.1. The vehicle must be connected to the control unit on the gantry via a 10-pin industry-standard electrical connector. The male connector must be mounted on the vehicle and the female connector must be attached to a flying lead connected to the gantry-mounted control unit.

3.2. The high-level detectors on the vehicle must be either 2-wire thermistor sensors, 2-wire optical sensors, 5-wire optical sensors or a compatible equivalent, provided the system is fail-safe. (NB: thermistors must have a negative temperature coefficient.)

3.3. The gantry control unit must be suitable for both 2-wire and 5-wire vehicle systems.

3.4. The vehicle must be bonded to the gantry via the common return wire of the overflow sensors, which must be connected to pin 10 on the male connector via the vehicle chassis. Pin 10 on the female connector must be connected to the control-unit enclosure which must be connected to the gantry earth.

3.5. All approved bottom-loading vehicles must carry an identification plate (see 2.3) which specifies the type of overflow-detection sensors installed (i. e. 2-wire or 5-wire).

#### **4. Location of the connections**

4.1. The design of the liquid-loading and vapour collection facilities on the loading gantry must be based on the following vehicle-connection envelope.

4.1.1. The height of the centre line of the liquid adapters must be: maximum 1,4 meters (unladen); minimum 0,5 meter (laden), the preferred height being 0,7 to 1,0 meters).

4.1.2. The horizontal spacing of the adapters must be not less than 0,25 meters (preferred minimum spacing is 0,3 meters).

4.1.3. All liquid adapters must be located within an envelope not exceeding 2,5 meters in length.

4.1.4. The vapour-collection adapter should be located preferably to the right of the liquid adapters and at a height not exceeding 1,5 meters (unladen) and not less than 0,5 meters (laden).

4.2. The earth/overflow connector must be located to the right of the liquid and vapour-collection adapters and at a height not exceeding 1,5 meters (unladen) and not less than 0,5 meter (laden).

4.3. The above connections must be located on one side of the vehicle only.

#### **5. Safety interlocks**

##### **5.1. Earth/Overflow detection**

Loading must not be permitted unless a permissive signal is provided by the combined earth/overflow control unit.

In the event of an overflow condition or a loss of vehicle earth, the control unit on the gantry must close the gantry-loading control valve.

## **5.2. Vapour-collection detection**

Loading must not be permitted unless the vapour-collection hose has been connected to the vehicle and there is a free passage for the displaced vapours to flow from the vehicle into the plant vapour-collection system.