**Gas Station Gasoline Vapor Recovery Facility Management Regulations**

Original 13 articles promulgated by Environmental Protection Administration, Executive Yuan order Huan-Kong No. 0910012847 on Feb. 27, 2002.

Revised 12 articles promulgated by Environmental Protection Administration, Executive Yuan order Huan-Kong No. 09200116630 on Mar. 12, 2003; the title was also revised as “Gas Station Gasoline Vapor Recovery Facility Management Regulations”

Revisions to Article 3 and 9 and addition of Article 8-1 promulgated by Environmental Protection Administration, Executive Yuan order Huan-Kong No. 0940071227 on Sep. 13, 2005.

Article 1

These Regulations are determined pursuant to Article 23, Paragraph 2 of the Air Pollution Control Act.

Article 2

Terms used in these Regulations are defined as follows:

1. "Gas stations" refer to premises filling motor vehicles or power machinery with gasoline or diesel fuel or supplying other gasoline or diesel fuel consumers and possessing fuel storage facilities and metered fuel pumps. However, petroleum refining or importing enterprises, or gasoline or diesel wholesalers that supply gasoline or diesel fuel to enterprises that possess fuel (gas) storage and filling facilities for self-use or that retail gasoline or diesel fuel for uses other than in vehicles shall not be subject to these restrictions.

2. "Gasoline vapor recovery facilities" refer to gasoline unloading gasoline vapor recovery equipment, and fuel tank vacuum pressure regulating valves and refueling gun gasoline vapor recovery equipment.

3. "Existing gas stations" refer to gas stations that obtained a construction permit prior to February 27, 2002.

4. "Newly-established gas stations" refer to gas stations that obtained construction permits after February 28, 2002, or to existing gas stations that were rebuilt or renovated in a way that affected gasoline vapor recovery facilities and that re-applied for a construction permit after the promulgation and implementation of these revised regulations.

5. "Gasoline vapor line liquid blockage testing (herein referred to as liquid blockage testing)" refers to the injection of nitrogen in place of gasoline vapor into the gasoline vapor line between the gasoline pump and the gasoline tank in order to measure the pressure drop produced in the line and thereby determine the ability of gasoline droplets to flow back to the gasoline tank.

6. "Refueling gun air intake volume and fuel filling volume ratio testing (herein referred to as air to liquid volume ratio testing)" refers to determination of the ratio between the volume of air taken in while filling gasoline through the refueling gun and the volume of filled gasoline.

7. "Gasoline vapor line pressure loss leak testing (herein referred to as vapor leak testing)" refers to gas-tightness testing of a gasoline vapor recovery facility's gasoline vapor lines.

Article 3

 A gas station's gasoline refueling guns and storage tanks shall be equipped with recovery facilities.

The applicable gas station targets, applicable areas, and enforcement dates in the foregoing paragraph are as follows:

|  |  |  |  |
| --- | --- | --- | --- |
| Applicable Targets  | Applicable Districts | Date of Implementation | Remarks |
| Newly-established gas stations | All special municipalities, cities, and counties | Date of promulgation  |  |
| Existing Gas Station | Taipei City, Kaohsiung City, Taichung, Chiayi City, Tainan City, Taipei County, Taichung County, Tainan County, Kaohsiung County | 07/01/2004 | From July 1, 2004 to December 31, 2005, existing gas stations located in the following areas are not be subject to these Regulations. * Taipei County: Wulai Township
* Taichung County: Hoping Township
* Kaohsiung County: Taoyuan Township, Sanmin Township, Maolin Township
 |
| Keelung City, Hsinchu City, Taoyuan County, Hsinchu County, Nantou County, Pingtung County, Miaoli County, Changhua County, Yunlin County, Chiayi County, Taitung County, Hualien County, Yilan County, Penghu County, Kinmen County, Lienchiang County | 01/01/2006 |  |

Article 4

* + - * + A newly-established gas station shall submit the following documents to the local competent authority with a gasoline vapor recovery facility establishment application after obtaining a construction permit and before reporting the start of construction work.

A photocopy of Construction permit

A photocopy of a construction preparation permit issued by the industry competent authority or other relevant verification document

A gasoline vapor recovery facility establishment plan (herein referred to as the plan) containing the following items:

Basic information concerning the gas station

The gasoline vapor recovery facilities and facility design drawings

Type of refueling gun recovery equipment

Liquid blockage testing steps or procedures; expected testing dates

Air to liquid volume ratio testing steps or procedures; expected testing dates

Vapor leak testing steps or procedures; expected testing dates

Other documents designated by the competent authority

Article 5

* + - * + After accepting an application in the foregoing article

The industry competent authority shall complete documentary review of the plan within fourteen days. The competent authority shall notify the enterprise to proceed with gasoline vapor line burial and relevant testing after the application passes review. If the plan or related documents are incomplete or fail to pass review, the competent authority shall immediately notify the enterprise to make corrections or improvements within a limited period. The number of days for making corrections shall not be included within the review period, but the total number of days for making corrections may not exceed ninety days.

* + - * + Liquid blockage testing shall be performed after the completion of gasoline vapor line burial in the foregoing paragraph.

The competent authority shall be notified five days prior to testing, and the competent authority may send personnel to supervise testing. The gas station shall record the test results and submit them to the competent authority for review within fifteen days after completion of testing. The competent authority shall issue verification documents only after checking that results comply with regulations.

Article 6

* + - * + Existed gas stations shall complete the following before 07/01/2004; new gas stations shall complete the following within 6 months after obtaining business license:

Installation of gasoline vapor recovery facilities

Air to liquid volume ratio

Gasoline vapor leak testing

* + - * + All gas stations shall record testing results and submit them to the local competent authority for reference within fifteen days after completion of testing.

Article 7

The maximum pressure drop found in liquid blockage testing of gasoline vapor lines from gasoline pumps to gasoline tanks at newly-established gas stations shall comply with the following regulations:

| **Liquid blockage test nitrogen flow** | **Maximum pressure drop** | **Allowable error** |
| --- | --- | --- |
| 0.56 Cubic meters/hour (20 cubic inches/hour) | 0.38 centimeter water column (0.15 inch water column) | 1/100 |
| 70 Cubic meters/hour (60 cubic inches/hour) | 14 centimeter water column (0.45 inch water column) | 1/100 |
| 2.83 Cubic meters/hour (100 cubic inches/hour) | 2.41 centimeter water column (0.95 inch water column) | 1/100 |

Article 8-1

When local competent authorities perform air to liquid volume ratio testing of gas station refueling guns, at least one-half of the number of refueling guns of each gasoline pump shall be tested. The gas station shall be deemed to have been failed when any of the following situations involving test results apply:

 I.The number of refueling guns meeting the air to liquid volume ratio test standards in the foregoing article is less than 70% of the total number of refueling guns tested.

 II.When the number of refueling guns meeting air to liquid volume ratio test standards in the foregoing article is at least 70% of the refueling guns tested, the refueling guns that fail to meet the passing standards shall include those for which improvements have not been completed on time after the competent authority has ordered improvement within a limited time period.

If a gas station cannot complete improvement within the time period in the second subparagraph of the foregoing paragraph, it shall submit an explanation of reason to the local competent authority and apply for an extension by the improvement deadline. The total number of days of extension may not exceed 90 days.

Any refueling guns at a gas station that are not in use for some reason shall be marked and locked; unused refueling guns that are reported to the local competent authority within 24 hours may be exempted from the testing mentioned in Paragraph 1.

Article 9

Gas stations shall themselves perform, or commission professional testing personnel to perform vapor leak testing once every two years. Testing shall be performed during the period from one month before to one month after the month of the previous testing. Each refueling gun shall be subjected to air to liquid volume ratio testing at least once during the first half and also during the second half of each year. The interval between two consecutive tests shall be at least three months. The local competent authority may, when necessary, request a gas station to increase the frequency of testing.

If the average amount of gasoline dispensed at a gas station is less than 200 kiloliters per month for three consecutive months, after the gas station has requested and obtained the competent authority's approval, the frequency of vapor leak testing may be reduced to once every three years and the frequency of refueling gun air to liquid volume ratio testing may be reduced to once each year, where the interval between two consecutive tests shall be at least six months. However, testing shall be handled in accordance with the regulations of the foregoing paragraph when the amount of gasoline dispensed at a gas station during any one quarter exceeds 600 kiloliters.

Gas stations that have received approval in accordance with the regulations of the foregoing paragraph shall report to the local competent authority for future reference the amount of gasoline dispensed during each month of the previous quarter before the end of each January, April, July, and October. Testing shall be handled in accordance with the regulations of Paragraph 1 when a gas station fails to report in accordance with regulations.

A gas station that has failed air to liquid volume ratio testing or vapor leak testing performed in accordance with the regulations of Paragraph 1 shall complete improvements within 20 days; a gas station that cannot complete improvements by the deadline shall apply to the local competent authority for an extension by the deadline.

A gas station refueling gun that is not in use for six months or more due to some reason must pass air-to-liquid volume ratio testing; a report must be made to the local competent authority before the refueling gun can be used again.

Article 10

 The results of improvement, repair, and testing performed in accordance with these Regulations shall be recorded and preserved for two years for reference.

Article 11

 The central competent authority or a testing organization commissioned by the central competent authority that has passed training and received a qualification certificate shall perform professional testing of gas station gasoline vapor recovery facilities.

Article 12

 These Regulations shall take effect on the date of enforcement except for articles whose enforcement date has been set separately.