

**MINISTRY OF ENVIRONMENT AND WATER
MINISTRY OF HEALTH**

REGULATION No:7 from May 3, 1999

on

AMBIENT AIR QUALITY ASSESSMENT AND MANAGEMENT

Chapter One

GENERAL PROVISIONS

Article. 1. This regulations sets forth provisions concerning the obligatory conditions, order and procedure for ambient air quality assessment and management by establishing:

1. continuation of the state policy in the field of ambient air quality assessment and management in accordance with article 19 of the Clean Air Act, including - improvement of the ambient air quality in the areas where the established limit values are exceeded and its maintenance in the rest of the areas;
2. reliable, representative, up-to date and precise ambient air quality assessment throughout the whole territory of the Country, provided by the Monitoring and Control Systems referred to in article 20 of the Clean Air Act;
3. uniform conditions for creation and functioning of ambient air quality Monitoring and Control Systems, including the measurement methods and equipment, and validation of the primary information in accordance with article 21, paragraph 2 of the Clean Air Act;
4. obtainment and storage of adequate information on ambient air quality, including its dissemination to the population and ensuring that it is made available to the public in accordance with article 23 of the Clean Air Act.

Article. 2.(1) The National Monitoring and Control System shall ensure the relevant ambient air quality assessment throughout the whole territory of the Country, divided into areas for ambient air quality assessment and management, referred to from this point onward only as “areas”.

(2) The Local Ambient Air Quality Monitoring and Control Systems shall ensure the ambient air quality assessment throughout the territory of one or several specific areas under paragraph 1.

(3) The whole territory of the Country, respectively, the territories of the different Regional Environmental Inspectorates shall be divided into separate areas in order to ensure representativeness and reliability of the ambient air quality assessment provided for in their territory.

Article. 3.(1) The borders of the areas under article 2 shall be determined on the basis

of the existing territorial-administrative structure and shall cover the territory of the whole Country. In the general case the area borders may correspond to the relevant Municipality borders.

(2) When determining the area borders under paragraph 1 it is possible to combine the territories of two or more Municipalities in one area and, on the contrary, to divide the territory of one Municipality to several separate areas, provided that all the necessary measures are taken to ensure the required level of ambient air quality assessment representativeness and reliability in accordance with article 2, paragraph 3.

(3) The area borders under paragraph 2 shall be determined by the Directors of the Regional Environmental Inspectorates on which territories this areas are situated and on the basis of reliable data and results concerning the pollutant levels inside them, in accordance with the relevant Municipal authorities and Ministry of Health Bodies, and shall be approved by the minister of environment and water.

Article. 4.(1) The National Monitoring and Control System owned by the Ministry of Environment and Water shall ensure the necessary ambient air quality assessment in order to determine the indicators in accordance with article 4, paragraph 1 of the Clean Air Act.

(2) The National and the Local Monitoring and Control Systems, including the Local Ambient Air Quality Monitoring and Control Systems owned by the Ministry of Health, shall ensure the necessary ambient air quality assessment in order to determine the supplementary indicators in accordance with article 4, paragraph 2 of the Clean Air Act in the relevant areas throughout the territory of the Country, provided that specific supplementary indicators has been established for this areas.

Article. 5. The obligatory conditions and procedure for information, data and results exchange between the National and the Local Ambient Air Quality Monitoring and Control Systems owned by the Ministry of Health in the relevant areas, shall be determined within the terms of common agreements in accordance with article 20, paragraph 4 of the Clean Air Act.

Chapter Two

AMBIENT AIR QUALITY ASSESSMENT

Article. 6.(1) The corresponding data and results from the ambient air quality assessment provided by the National and the Local Monitoring and Control Systems, including its registration, validation and storage shall ensure the following:

1. reliable, representative, up-to date and precise information on the ambient air quality present status, as well as on the trends and forecasts for its development;
2. determination of cases where the established ambient air quality limit values, as well as of the corresponding upper and lower assessment thresholds are exceeded;
3. reasons for taking policy making decisions in relation with the activities provided by the relevant competent authorities concerning the ambient air quality protection and management in accordance with article 19 of the Clean Air Act.

(2) The National and the Local Monitoring and Control Systems, as well as the ambient air quality monitoring systems provided for in article 20, paragraph 3 of the Clean Air Act shall be developed and maintained, respectively, by the Ministry of Environment and Water, the Ministry of health, the Municipal Authorities or the corresponding owners of sites (the main polluting sources for that specific area) in order to achieve compliance with the

requirements of the above paragraph.

Article. 7.(1) The competent authorities under article 19, paragraphs 1 and 2 of the Clean Air Act shall provide through the National and the Local Monitoring and Control Systems the corresponding ambient air quality assessment in the relevant areas on the territory of the Country in accordance with the established provisions on the order and procedure for:

1. measurement of pollutant levels (selection, equipment and minimum number of monitoring sites, used measurement methods and criteria, validation of the primary information and others), on the basis of article 6, paragraph 1 of the Clean Air Act;
2. modelling of pollutant levels (calculation of the dispersion and the expected concentrations of pollutants in the atmospheric ground layer), on the basis of article 11, paragraph 3 of the Clean Air Act;
3. estimation (using balance methods) and inventory of the emissions, discharged in the atmospheric air from stationary and mobile sources, on the basis of article 25, paragraph 1 item 1 of the Clean Air Act;
4. ambient air quality assessment using other representative methods for determination of ambient air pollutant levels.

(2) The minister of environment and water in accordance with the minister of health shall issue instructions determining additional technical requirements in connection to the methods for ambient air quality assessment referred to in paragraph 1, items .2, 3 and 4.

(3) The requirements provided for in above paragraphs may differ depending on the type of pollutant and may be determined corresponding to the size of population and the levels of pollutants observed in the relevant areas.

Article. 8.(1) An ambient air quality assessment using measurements in order to determine the levels of the corresponding pollutants is mandatory in the following cases:

1. agglomerations, as defined in paragraph 1, item 10 from the concluding provisions of this regulation;
2. areas within which the pollutant levels are between the corresponding upper assessment thresholds and the established limit values;
3. areas within which the pollutant levels are exceeding the established limit values.

(2) In areas within which the pollutant levels are between the corresponding upper and lower assessment thresholds the ambient air quality assessment shall be provided using at least a combination of measurements, modelling, emission inventories and other representative methods to determine the pollutant levels in this areas.

(3) In areas within which the pollutant levels are not exceeding the corresponding lower assessment thresholds the ambient air quality assessment shall be provided using at least a combination of measurements, modelling, emission inventories and other representative methods to determine the pollutant levels in this areas.

(4) In the areas referred to in paragraph 1 the ambient air quality assessment may be supplemented by modelling , emission inventories and other representative methods for determination of the pollutant levels in this areas.

Article. 9.(1) In order to ensure the implementation of the provisions of article 8, the competent authorities referred to in article 19 of the Clean Air Act shall provide a preliminary assessment of ambient air quality, involving the use of indicative measurement programs and other methods, of all areas for which they do not have representative measurements of the levels of pollutants.

- (2) The minister of environment and water issue an Instruction on the procedure

and order for selection of monitoring sites and execution of indicative measurement programs as referred to in above paragraph, in the corresponding areas on the territory of the Country.

(3) The National Centre on Environment and Sustainable Development shall prepare a list of the methods used to provide the preliminary assessment of ambient air quality as referred to in paragraph 1 above.

Chapter Three

MEASUREMENTS FOR DETERMINATION OF AMBIENT AIR QUALITY

Article. 10.(1) The continuous and/or discontinuous measurements for ambient air quality assessment shall be performed at monitoring (fixed) sites.

(2) The results obtained from the measurements under paragraph 1 shall provide statistically reliable information which gives the possibility to determine the levels of pollutants being monitored.

(3) The monitoring sites under paragraph 1 shall be classified according to the conditions laid down in Sector 1 from Annex 1.

(4) The range of the monitoring sites under paragraph 1 shall be determined according to the conditions laid down in Sector 2 from Annex 1, corresponding to their class.

Article. 11.(1) When possible, the following meteorological parameters shall be measured in the monitoring sites, in addition to the pollutant levels:

1. wind direction and velocity;
2. temperature and water vapour content of the ambient air;
3. atmospheric pressure;
4. solar radiation.

(2) The measurement of the meteorological parameters under paragraph 1 shall be mandatory in all monitoring sites performing continuous measurements.

(3) The procedure for registration and validation of the results obtained from the relevant measurements, performed in order to achieve compliance with the requirements of above paragraphs, shall provide the possibility to compare the corresponding pollutant level measurement results from similar monitoring sites.

Article. 12.(1) In order to achieve compliance with the provisions of article 6, paragraph 1, the competent authorities shall establish, maintain and operate the corresponding number of monitoring sites as part of the National or the relevant Local Monitoring and Control Systems, in all areas falling within the scope of article 8, paragraphs 1 and 2.

(2) At least one monitoring site performing continuous measurements for ambient air quality assessment to provide determination of the levels of the main indicators in accordance with article 4, paragraph 1 of the Clean Air Act shall be established, maintained and operated in areas falling within the scope of article 8, paragraph 1 above.

(3) In the areas falling within the scope of article 8, paragraph 1 the monitoring sites location shall remain fixed during the course of one calendar year.

(4) During the selection of monitoring sites in accordance with the provisions of above paragraphs the corresponding conditions laid down in Annex 2 shall be complied with.

Article. 13.(1) The establishment of new monitoring sites, as well as the definitive closure or change of the location of existing ones which are part from the National Monitoring

and Control System shall be approved by the minister of environment and water.

(2) The establishment of new monitoring sites, as well as the definitive closure or change of the location of existing ones which are part from a Local Monitoring and Control System shall be co-ordinated by the Municipal Authorities with corresponding Regional Environmental Inspectorate Director on which territory the monitoring site is situated.

×**14.(1)** The General Director of the National Centre for Environment and Sustainable Development in co-ordination with the Directors of the Regional Environmental Inspectorates shall prepare a list of the individual monitoring sites within the National Monitoring and Control System. The list shall be approved by the minister of environment and water.

(2) According to the established legislative requirements the list referred to in the above paragraph may determine the following:

- 1 . the used measuring methods and equipment;
- 2 . the periods of sampling, validation and registration of the measurement results.

(3) The list referred to in paragraph 1 shall contain the following information concerning the operational characteristics of the individual monitoring sites:

1. name and number of population of the ambient air quality assessment and management area where the monitoring site has been situated;
2. monitoring site class and range;
3. maintaining authority (National Centre of Environment and Sustainable Development, Regional Environmental Inspectorate, National Hydrology and Meteorology Institute, Hygienic-epidemiological Inspection and others);
4. measured pollutants (main and additional indicators);
5. measured meteorological parameters.

(4) The list referred to in paragraph 1 shall be updated in a case of any significant change in the monitoring site number, class and range, as well as in any case of definitive closure or change in the location of the existing monitoring sites. The list shall be published in the National Centre of Environment and Sustainable Development Annual Report within a time period not exceeding five years.

Article. 15. In order to ensure the preparation and updating of the monitoring sites list referred to in article 14, not later than three months after the expiring of each calendar year, the Regional Environmental Inspectorates shall present to the National Centre of Environment and Sustainable Development the corresponding information on the individual existing monitoring sites situated within its territory, in accordance with the conditions laid down in Annex 3.

Chapter Four

PROVISIONS FOR QUALITY MEASUREMENT

Article. 16.(1) The National Centre of Environment and Sustainable Development within the Ministry of Environment and water shall be responsible to:

1. co-ordinate within the territory of the Country the realisation of a programs aimed at quality assurance of the measurements to determine the levels of different pollutants in the ambient air, including the relevant programs organised by the specialised international organisations, provided that Republic of Bulgaria has a

signed agreement for mutual Cupertino in that field or is a party to the corresponding organisations;

2. analyse, estimate the degree of compliance, choose and present for approval to the minister of environment and water, in co-ordination with the minister of health, the measurement methods and equipment in case that this are not defined with corresponding standartizational documents, which are identical to an European (CEN) or International (ISO) reference method.

Article. 17.(1) The analytic laboratories performing discontinuous measurements for ambient air quality assessment shall be accredited by the Bulgarian Accreditation Service under the Committee of Standartization and Metrology.

(2) The analytic laboratories shall perform the discontinuous measurements for ambient air quality assessment in accordance with the conditions laid down in BSS (Bulgarian State Standard) EN 45 001.

Article. 18.(1) Provided that there aren't any specific provisions established to this end the discontinuous measurements of ambient air pollutant levels shall be performed in a minimum of 75% from the days (in 260 days per year and 5 days during one week), within one calendar year. The measurements shall be distributed in regular intervals within the corresponding time periods.

(2) In case that it is impossible to achieve compliance with the provisions of the above paragraph concerning the mandatory discontinuous measurements, the annual mean values of the corresponding pollutant levels shall be determined using at least the following measurements:

1. at least one measurement within the coarse of every week;
2. at least two measurements distributed at regular intervals within the coarse of one week, in areas where the pollutant levels are exceeding the corresponding upper assessment thresholds.

(3) Where possible, the discontinuous measurements referred to in paragraph 1 above shall be performed in a minimum of 90% from the days, distributed at regular intervals within the corresponding calendar year.

(4) The discontinuous measurements, including the number and periodicity of the individual samplings, and the sampling periods shall ensure representativeness of the measurement results over the entire corresponding control period.

Article. 19. The ambient air quality assessment measurements taken in monitoring sites shall be performed in accordance with measurement methods which are defined in the corresponding standartizational documents and using measurement equipment with valid type approval certificate.

Article. 20.(1) By way of derogation from article 19 above, In a case of lack of relevant standartizational documents, the measurements may be performed in accordance with a corresponding methodologies, approved by the minister of environment and water.

(2) The Methodologies referred to in paragraph 1 above shall constitute a part from whole documentation of the accredited analytic laboratory, in accordance with the enacted legislative provisions.

Article. 21.(1) Without prejudice to the provisions of the Measurements Act, the measurement equipment used for continuous or discontinuous measurements to assess the ambient air quality shall be subject to the following:

1. type approval testing;
2. preliminary and periodical checks;

3. expertise.

(2) The calibration of the measuring equipment referred to in paragraph 1 above shall be performed by a calibration laboratories, accredited for this specific activity by the Bulgarian Accreditation Service under the Committee of Standardization and Metrology.

(3) The calibration of the measuring equipment shall be performed at least one time in a calendar year in accordance with the corresponding methodologies, elaborated by accredited calibration laboratories.

Article. 22.(1) The minister of environment and water, in co-ordination with the minister of health, shall issues an instructions on the obligatory conditions and procedure for performing measurements to determine the levels of the individual pollutants in the ambient air.

(2) The instructions referred to in paragraph 1 above may determine measuring and/or sampling methods and equipment, including, in the case of discontinuous measurements, sampling periods and intervals, which are mandatory for use in the corresponding measurements.

Chapter Five

REGISTRATION, VALIDATION AND STORAGE OF MEASUREMENT RESULTS

Article. 23.(1) The results from the measurements which has been performed in ambient air quality monitoring sites shall be registered in protocols, prepared in accordance with the corresponding forms.

(2) The protocol forms referred to in paragraph 1 above shall be approved by the minister of environment and water, in co-ordination with the minister of health.

(3) The protocols referred to in paragraph 1 above shall contain the following obligatory information:

1. name and address of the analytic laboratory;
2. name of the specialist which has prepared the protocol;
3. date;
4. monitoring site where the sample has been taken;
5. ambient air temperature and pressure during the sampling process;
6. sampling period;
7. measuring method or methods which has been used;
8. established ambient air quality limit values for the corresponding pollutants.

(4) During the process of measurement results registration the following requirements shall be complied with:

1. values below the measuring method detection limit shall be registered as zero values, but shall be taken into account as while determining the sampling (measurement) number;
2. measurement results shall be presented in micrograms or milligrams per cubic meter under the corresponding normal conditions for temperature and pressure, depending on the established ambient air quality limit values.

Article. 24.(1) The corresponding results and data from discontinuous measurements

taken in monitoring sites within the territory of one Regional Environmental Inspectorate shall be received in its regional control centre not later than 12.00 p.m. on the day after the sampling has been performed.

(2) The corresponding results and data from discontinuous measurements of the ambient air heavy metals levels, if technically possible, shall be received in the relevant Regional Environmental Inspectorate's regional control centre not later than the day after the sampling has been performed, but in any case not later than 10 days after the expiring of the month during which the sample has been performed.

Article. 25. The results and data from continuous measurements performed in the corresponding monitoring sites shall be received in the relevant Regional Control Centres of the Regional Environmental Inspectorates, as well as in the National Centre on Environment and Sustainable Development, if possible, in real time.

Article. 26.(1) The Regional Environmental Inspectorates shall create local data bases in which they shall storage the obtained data and results from all measurements performed in monitoring sites, situated on its territory.

(2) All data and results referred to in paragraph 1 above shall be received and storage in the national data base of the National Centre on Environment and sustainable Development.

Article. 27.(1) The validation of the primary results and data from the measurements shall include preliminary check and follow-up validation.

(2) The preliminary check shall ensure the possibility to determine the presence of negative values, as well as the minimum and maximum values for the levels of different pollutants.

(3) The follow-up validation shall determine the following: the total number of samples taken over the different time periods (day, week, month, three months, year and others) in each individual monitoring site; the mean concentration over the corresponding periods of time in each individual monitoring site; cases of exceeding of the established limit values; percent of measurements in excess of the different limit values; the maximum concentration over the different time periods; number of cases with exceeding of the corresponding assessment thresholds and percentiles.

(4) The additional validation shall include a check for presence of the required measurement number and calculation of the corresponding statistical parameters in accordance with the conditions laid down in Annex 5.

Article. 28. After finishing the validation referred to in article 27 the measurement data and results shall be subject to expert check for their reliability.

Chapter Six

MANAGEMENT (MAINTAINEMENT AND IMPROVEMENT) OF AMBIENT AIR QUALITY

Article. 29. The ambient air quality in the separate areas throughout the territory of the Country shall be managed by the competent authorities in accordance with their competencies, as determined in article 19 of the Clean Air Act, on the basis of the relevant results and data from the ambient air quality assessment and the segregation of areas into the corresponding categories according to article 30.

Article. 30.(1) The National Centre on Environment and Sustainable Development in co-ordination with the Regional Environmental Inspectorates shall prepare a list of the areas for ambient air quality assessment and management throughout the territory of the Country,

segregating it into the following categories:

1. areas within which the levels of one or several pollutants are exceeding the established limit values and/or the established limit values plus the corresponding margins of tolerance (including, areas within which the corresponding established limit values for different pollutants for which margins of tolerance hasn't been fixed are exceeded);
2. areas within which the levels of one or several pollutants are exceeding the established limit values for which margins of tolerance are not fixed;
3. areas within which the levels of one or several pollutants are between the corresponding upper and lower assessment thresholds;
4. areas within which the pollutant levels are not exceeding the lower assessment thresholds.

(2) The Regional Environmental Inspectorate in co-ordination with the National Centre of Environment and Sustainable Development shall prepare a list of the areas situated on its territory, within which the levels of one or several different pollutants are exceeding the established limit values. The Regional Environmental Inspectorate shall immediately inform the relevant Municipal Authorities on the obligation to undertake the corresponding mandatory measures laid down in article 27 of the Clean Air Act and article 31 of this Regulation.

(3) The lists referred to in above paragraphs 1 and 2 shall be prepared not later than two months after the end of the corresponding calendar year on the basis of the data on pollutant levels obtained from the ambient air quality assessment results through the same calendar year. The above lists shall be approved by the minister of environment and water.

Article. 31.(1) In the areas referred to in article 30, paragraph 1 items 1 and 2 the preparation of programs for reduction of the pollutant levels and achievement of the corresponding limit values within the established to this end deadlines is mandatory.

(2) The programs referred to in above paragraph 1 shall be prepared according to the provisions of article 27 of the Clean Air Act by the municipal Authorities in co-ordination with the relevant Regional Environmental Inspectorate.

(3) The programs referred to in above paragraph 1 shall be prepared not later than 18 months, as from the date of notification in accordance with the provisions of article 30, paragraph 2.

(4) In the areas referred to in article 30, paragraph 1 items 1 and 2, where the established limit values for more than one pollutant are exceeded, complex programs for achievement of the established limit values for each individual pollutant shall be prepared.

(5) In case where there is a risk of the limit values and/or alert thresholds being exceeded, because of unfavorable meteorological conditions and other similar reasons, the competent authorities shall draw up operational action plans in accordance with article 30 of the Clean Air Act, indicating the measures to be taken in the short term in order to reduce that risk and to limit the duration of such an occurrence. Such plans may, depending on the individual case, provide for measures to control and, where necessary, suspend activities, which contribute to the limit values being exceeded, including measures for motor-vehicle traffic control in accordance with article 29 of the Clean Air Act.

Article. 32.(1) The programs referred to in article 31, paragraph 1, including the complex programs referred to in paragraph 4 and the operational acting plans referred to in paragraph 5 of the same article shall be prepared in compliance with:

1. the integrated approach for protection of the environment from pollution, as a whole;

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2. the acting legislation in the field of environmental impact assessment;
 3. the acting hygienic-sanitary norms;
 4. the acting legislation on safety and health protection of workers.

(2) The content of the programs referred to in above paragraph 1 shall correspond to the conditions laid down in Annex 5.

Article. 33.(1) The mayor of the relevant Municipality together with the interested physical and legal persons shall be responsible for the programs implementation.

(2) The Municipal Authorities in co-ordination with the relevant Regional Environmental Inspectorate shall enforce the implementation of the programs referred to in article 31.

Article. 34. In the areas referred to in article 30, paragraph 1 items 3 and 4, the Municipal Authorities in co-ordination with the relevant Regional Environmental Inspectorate shall undertake the corresponding measures for emission reduction, in accordance with the provisions of the Environmental Protection Act and Clean Air Act, including the issuing of plants operational permits and decisions on environmental impact assessment, in order to maintain the pollutant levels under the assessment thresholds and to preserve the optimum possible ambient air quality in this areas, comparable with their sustainable development.

Article. 35. The above lists referred to in article 30, paragraph 1 items 1 and 2 shall be made available to the public in the relevant bulletins and reports published by the Ministry of Environment and Water.

Article. 36.(1) The Municipal Authorities shall undertake the corresponding measures in order to inform the population concerning the process of elaboration of the programs referred to in article 31, including the elaboration of a complex programs referred to in article 32.

(2) The Municipal Authorities shall ensure that the programs referred to in above paragraph 1 are made available to the following public organisations:

1. environmental organisations and movements;
2. organisations representing the interest of sensitive population risk groups;
3. organisations on public health protection.

Chapter Seven

POPULATION INFORMATION

Article. 37.(1) The Ministry of Environment and Water together with the regional Environmental Inspectorates shall ensure that the lists referred to in article 30 are made available to the public in accordance with the relevant provisions of article 23 of the Clean Air Act.

Article. 38. The Ministry of Environment and Water together with the regional Environmental Inspectorates shall disseminate within the population adequate information on the ambient air quality concerning the levels of the different pollutants in accordance with the specific provisions established on grounds of article 6 of the Clean Air Act.

Article. 39.(1) When the alert thresholds are exceeded the corresponding competent authorities according to article 19 of the Clean Air Act, within their sphere of competence, shall undertake the necessary measures in order to inform the population in the affected areas by means of radio, television and the press, etc.

(2) The information which is presented to the population in order to comply with the provisions of the above paragraph shall be determined by the minister of environment and water and the minister of health depending on the type of individual pollutants.

ADDITIONAL PROVISIONS

§1. For the purposes of this Regulation:

1. **“monitoring site”** means the place where the levels of different pollutants in the ambient air are determined using measurements;
2. **“ambient air”** shall mean outdoor air in the troposphere, excluding work places;
3. **“pollutant”** shall mean any substance introduced directly or indirectly by man into the ambient air and likely to have harmful effects on human health and/or the environment as a whole;
4. **“level”** shall mean the concentration of a pollutant in ambient air, provided that no other provision on the grounds of article 6, paragraph 1 of the Clean Air Act has been adopted for a specific pollutant;
5. **“limit value”** shall mean a level fixed with the aim of avoiding, preventing or reducing harmful effects on human health and/or the environment as a whole, to be attained within a given period and not to be exceeded once attained;
6. **“alert threshold”** shall mean a level beyond which there is a risk to human health from brief exposure and at which shall be taken immediate corresponding steps for informing and warning the population of affected areas;
7. **“margin of tolerance”** shall mean the percentage of the limit value by which this value may be exceeded, in accordance with the relevant provisions, established on the grounds of article 6, paragraph 1 of the Clean Air Act;
8. **“assessment”** shall mean any method used to measure, calculate (including modeling methods), predict or estimate the level of a pollutant in the ambient air;
9. **“area”** means a part from the territory of the Country which borders are delimited in accordance with provisions of article 2 of this Regulation;
10. **“agglomeration”** shall mean a area, as defined in item 9 above, with a population concentration in excess of 250 000 inhabitants;
11. **“upper assessment threshold”** shall mean a pollutant level, established on the grounds of article 6, paragraph 1 of the Clean Air Act and used to determine the different types of ambient air quality assessment in accordance with article 7, paragraphs 1 and 2, as well as to segregate the areas in accordance with the provisions of article 30, paragraph 1 of this regulation;
12. **“lower assessment threshold”** shall mean a pollutant level, established on the grounds of article 6, paragraph 1 of the Clean Air Act and used to determine the different types of ambient air quality assessment in accordance with article 7, paragraph 3, as well as to segregate the areas in accordance with the provisions of article 30, paragraph 1 of this regulation;
13. **“continuous measurements”** means measurements, performed continuously in the course of the whole calendar year using automatic measuring equipment;

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14. **“discontinuous measurements”** means any measurements, which do not correspond to the above definition given in item 13;
 15. **“monitoring site range”** means the geographical area within which the results from the measurements, performed at that monitoring site in order to determine the levels of pollutants in the ambient air, are representative.
 16. **“National Monitoring and Control System”** means Air Purity Protection and Monitoring Sub-system which is part from the National Automatic Environmental Monitoring System owned by the Ministry of Environment and Water.

TRANSITIONAL AND CONCLUDING PROVISIONS

§2. This Regulation is adopted on the grounds of paragraph 5 and article 21, paragraph 2 of the Clean Air Act.

§3. The minister of environment and water in co-ordination with the minister of health may adopt instructions and guidelines on the implementation of this Regulation.

§4. This Regulation shall enter into force on 01.01.2000.

Minister of Health:

P.BOYADJIEV

Minister of Environment and Water:

E.MANEVA

ANNEX 1

to article 10, paragraphs 3 and 4

Sector 1
MONITORING SITES CLASSIFICATION

- it.1. Traffic-oriented monitoring sites are these which are situated in locations with not least than 2500 vehicles per day passing within a circle of 50 meters.
- it.2. Industrial-oriented monitoring sites are these which are situated in locations predominantly influenced by emissions from industrial and other production activities.
- it.3. Urban background monitoring sites are these which are situated in build-up city areas and not corresponding to the criteria defined in above item.
- it.4. Near-city background monitoring sites are these which are situated between 3-10 km away from a city and not corresponding to the criteria defined in above items 2 and 3.
- it.5. Regional monitoring sites are these which are situated between 10-50 km away from a city and not corresponding to the criteria defined in above items 2 and 3.
- it.6. Remote monitoring sites are these which are situated more than 50 km away from a city and not corresponding to the criteria defined in above items 2 and 3.

Sector 2
DETERMINATION OF THE RANGE OF THE MONITORING SITES

- it.7. The range of the monitoring sites depending on their classification according to above items 1 to 6 is given in table 1:

table 1

Class of the MS	MS Range
Traffic-oriented	<10-15 m
Industrial-oriented	10-100 m
Urban background	100 m-2 km
Near-city background	2-10 km
Regional	25-150 km
Remote	200-500 km

it.8. When determining the range of the monitoring sites the following conditions shall be taken into account:

it.8.1. influence of the stationary emission sources which are situated in the monitoring site close vicinity, as well as the influence of far distanced point sources.

it.8.2. specific topographic characteristics (build-up areas, location relief and others) interfering the emission dispersion and transport.

ANNEX 2

to article 12,
paragraph 4

CONDITIONS FOR SELECTION AND ESTABLISHMENT OF MONITORING SITES WITHIN THE SEPARATE AREAS

it.1. Site location analysis on the basis of the existing data concerning the following:

- * specific topographic characteristics of the location;
- * influence of emissions, discharged from stationary sources in the industrial, household and administrative sectors;
- * meteorological conditions;
- * vehicle traffic (number of vehicles passing in the close vicinity for a certain time period, road category and others);
- * pollutant levels (results obtained from measurements, emission inventories and dispersion modeling).

it.2. Determination of locations within which there is a highest risk for the established ambient air quality limit values to be exceeded, based on the analysis provided according to item 1.

it.3. Within the locations referred to in item 2 – determination of the locations within which there is a highest risk for significant population exposure and, in particular, for the potentially sensitive risk groups.

it.4. If necessary, series of representative measurements performed in temporary monitoring sites shall be used in order to determine the locations referred to in items 2 and 3.

it.5. The final selection of the measuring sites shall be done between the locations referred to

in item 3 and in accordance with the measurements referred to in item 4, taking into account the corresponding specific characteristics depending on the monitoring site class.

- it.6. The monitoring site selection (location) shall be reviewed at regular intervals not exceeding three calendar years.

ANNEX 3

to article 15

INFORMATION CONCERNING THE MONITORING SITES

I. INFORMATION CONCERNING MONITORING SITES

1. General information:

- Name,
- Reference number or code,
- Body/competent authority responsible for monitoring site management,
- Class of monitoring site:
 - Traffic-oriented,
 - Industrial-oriented,
 - Urban background and other.
- Range of monitoring site
- Ambient Air Quality Monitoring and Control System from which the monitoring site is a part;
- Geographical coordinates;
- Altitude (above the sea level);
- Pollutants measured,
- Meteorological parameters measured,
- other relevant information: prevailing wind direction, ratio between distance from and height of closest obstacles, etc.

2. Local environment characteristics/Landscape morphology:

- Type of zone where the monitoring site is situated
 - urban,
 - suburban,
 - rural,

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- Characterization of zone
 - residential,
 - commercial,
 - industrial,
 - agricultural,
 - natural,
 - Number of inhabitants of the zone
 - 3. Main sources of emission:
 - public power, co-generation and district heating,
 - commercial, institutional and residential combustion,
 - industrial combustion,
 - production processes,
 - extraction and distribution of fossil fuels,
 - solvent use,
 - road transport,
 - other mobile sources and machinery (to be specified),
 - waste treatment and disposal,
 - agriculture,
 - nature.
 - 4. Characterization of traffic (only for traffic-orientated stations):
 - wide street with:
 - large volume of traffic (in excess of 10 000 vehicles a day),
 - moderate volume of traffic (between 2 000 and 10 000 vehicles a day),
 - low volume of traffic (less than 2 000 vehicles a day),
 - narrow street with:
 - large volume of traffic (in excess of 10 000 vehicles a day),
 - moderate volume of traffic (between 2 000 and 10 000 vehicles a day),
 - low volume of traffic (less than 2 000 vehicles a day),
 - canyon street with:
 - large volume of traffic (in excess of 10 000 vehicles a day),
 - moderate volume of traffic (between 2 000 and 10 000 vehicles a day),
 - low volume of traffic (less than 2 000 vehicles a day),
 - highway (Bulevard)
 - large volume of traffic (in excess of 10 000 vehicles a day),
 - moderate volume of traffic (between 2 000 and 10 000 vehicles a day),
 - low volume of traffic (less than 2 000 vehicles a day),
 - others: crossroad, signal lights, parking, bus stop, taxi stop.

II. INFORMATION CONCERNING MEASUREMENT METHODS AND EQUIPMENT:

- Equipment:
 - name;
 - analytical principle.

- Characteristics of sampling:
 - location of sampling point (facade of building, pavement, kerbside, courtyard);
 - height of sampling point;
 - length of sampling line;
 - result-integrating time;
 - sampling time.

- Calibration:
 - type: automatic, manual, automatic and manual;
 - method;
 - frequency.

ANNEX 4
to article 27,
paragraph 4

CALCULATION OF THE MEASUREMENT RESULTS FOR THE ANNUAL REFERENCE PERIOD

The calculation of the median (50th percentile), 98th percentile and 99.9th percentile on the basis of the values recorded throughout the year must be carried out as follows:

- it.1. the 50th (98th or 99.9th) percentile must be calculated from the values actually measured.
- it.2. The measured values must be rounded off to the nearest value expressed in mg/m³. All the values are to be listed in increasing order for each individual monitoring site:
$$\tilde{O}_1 \leq \tilde{O}_2 \leq \tilde{O}_3 \leq \dots \leq X_{N-1} \leq X_N$$
- it.3. The 50th (98th or 99.9th) percentile is the value of k, to be calculated from the following formula:
$$k = 0.50 * (0.98 \text{ or } 0.999) * N$$

N being the number of values actually measured.
- it.4. The value of 0.50 (0.98 or 0.999) * N must be rounded off to the nearest whole number.

ANNEX V
to article 32,
paragraph 2

INFORMATION TO BE INCLUDED IN THE PROGRAMS FOR AMBIENT AIR QUALITY IMPROVEMENT

1. Localization of excess pollution

- region;
- city (map);
- monitoring site/measuring station (map, geographical coordinates).

2. General information

- type of zone (city, industrial or rural area);
- estimate of the polluted area (km²) and of the population exposed to the pollution;

-
- useful climatic data;
 - relevant data on topography;
 - sufficient information on the type of targets requiring protection in the area for ambient air quality assessment and management.

3. Responsible authorities

Names and addresses of persons responsible for the development and implementation of improvement plans and programmes.

4. Nature and assessment of pollution

- concentrations observed over previous years (before the implementation of the improvement measures);
- concentrations measured since the beginning of the project;
- techniques used for the assessment of ambient air.

5. Origin of pollution

- list of the main emission sources responsible for pollution (map);
- total quantity of emissions from these sources (tons/year);
- information on pollution imported from other regions.

6. Analysis of the situation

- details of those factors responsible for the excess (transport, including cross-border transport, formation) of the established limit values and/or alert thresholds;
- details of possible measures for improvement of air quality in the concerned area.

7. Details of those measures or projects for improvement of ambient air quality which existed prior to the entry into force of this Regulation i.e.

- local, regional, national, international programs and measures;
- observed effects of these programmes and measures.

8. Details of those measures or projects adopted with a view to reducing pollution (improve ambient air quality) following the entry into force of this Regulation:

- listing and description of all the measures set out in the project;
- timetable for implementation;
- estimate of the improvement of air quality planned and of the expected time required to attain the established ambient air quality limit values and/or alert thresholds.

9. Details of the measures or projects planned or being researched for the long term.

10. List of the publications, documents, surveys, work, etc., used to supplement information requested in this Annex for the ambient air improvement programs.