



# Executive Regulation

## For Noise

**For the Environmental Law issued by the Royal Decree**

**No. (m/165), dated 19/11/1441 Hijri**

**\*\*\* Note: In the event of any discrepancy between the Arabic original version of this Executive Regulation and its English translation, the Arabic version prevails \*\*\***





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## Article (1) - Definitions

The following terms and expressions – wherever they appear in this Executive Regulation – shall have the meanings set forth below, except where it is therein expressly otherwise:

**Law:** Environmental Law.

**Executive Regulation:** Executive Regulation for Noise.

**Ministry:** Ministry of Environment, Water and Agriculture.

**Minister:** Minister of Environment, Water and Agriculture.

**Center:** National Center for Environmental Compliance.

**Person:** Any public or private natural or legal person.

**Permit:** A document issued by the Center to a person granting him temporary permission to exceed the standards or limits of noise level.

**Permittee:** A person who is granted a permit in accordance with the provisions of this Executive Regulation.

**Inspectors:** Employees designated by the Minister or the chairman of the Center's board of directors the Center to undertake Center's monitoring and inspections, and to apprehend, investigate, and substantiate violations to the provisions of the law and Executive Regulation.

**Activity:** Any industrial, commercial, or service-related facility, project, business, or other activities that are expected to have an environmental impact.

**Noise:** The unpleasant and undesirable sound that adversely affects the health of humans and living species, and environment quality, that arises from various human activities such as manufacturing, transportation, construction work, and others.

**Environmentally Sensitive Areas:** Areas with environmental significance, and whose degradation has negative repercussions for the environment. They include protected areas, parks, forests, wetlands, bird habitats, mangroves, landscaped sites, watersheds, water catchment and run-off areas, beaches, waterways, aquifers or any other area(s) identified or declared as environmentally sensitive areas by the State, the Ministry, or the national environmental centers.

**Sensitive Receptors:** Receptors that are likely to be severely affected by an activity or project due to their geographical proximity or sensitive nature. They include: environmental elements, living species, archeological, cultural, and religious sites, and community groups (such as endangered species, hospitals, elder care centers, schools, residential complexes, and others).

**Decibel A (dBA):** The measurement unit of noise intensity as perceived by the human ear. It is the logarithmic difference between the pressure of the sound, which intensity is measured (A) and the pressure of the lowest sound (P0) that can be perceived by the human ear, which is 20





micropascals ( $\mu\text{Pa}$ ). It is measured using an audio filter (Filter-A) which measures sounds in a specific frequency range.

**$L_{\text{Aeq, T}}$ :** Equivalent continuous A-weighted sound level. It is the constant sound level that, in a given situation and time period (T), conveys the same sound energy as the actual time-varying A-weighted sound.

**Low-density Residential Areas:** Areas that accommodate 4 to 8 residential units per 10,000  $\text{m}^2$  or 1,000 to 3,999 persons per  $\text{km}^2$ .

**Medium-density Residential Areas:** Areas that accommodate 9 to 14 residential units per 10,000  $\text{m}^2$  or 4,000 to 6,999 persons per  $\text{km}^2$ .

**High-density Residential Areas:** Areas that accommodate 15 to 20 residential units per 10,000  $\text{m}^2$  or 7,000 to 9,999 persons per  $\text{km}^2$ .

**Daytime:** Time period between 7.00 am and 8.00 pm.

**Night-time:** Time period between 8.00 pm and 7.00 am.

**Construction Work:** All drilling, building, demolishing, or repairing activities, or other directly related activities.

## **Article (2) - Scope of Application**

The provisions of this Executive Regulation shall apply to all persons in residential, commercial, industrial, and environmentally sensitive areas, roadsides, and construction sites. They do not cover the noise inside buildings, loudspeakers at mosques, military activities, warning sirens, airports, railways, operational activities at ports, and national ceremonies.

## **Article (3) - The Center's Scope of Work Regarding Noise**

The Center shall undertake tasks pertaining to noise that include:

- (1) Monitoring persons' compliance with the standards of noise level set forth in these Executive Regulations.
- (2) Setting the controls and requirements pertaining to:
  - a. Monitoring, measuring, and controlling noise levels.
  - b. Modelling noise levels and displaying results on maps.
  - c. Developing plans to reduce noise levels.
- (3) Periodic monitoring and assessment of noise levels across the Kingdom.
- (4) Adopting and monitoring noise level indicators.
- (5) Reviewing and analyzing data and reports pertaining to levels of the noise emitted from activities on a periodic basis.





- (6) Disseminating environmental information, data, and reports pertaining to noise, as determined by Ministry.
- (7) Undertaking necessary actions and measures when persons are about to exceed the allowed limits of noise level.
- (8) Determining and approving the controls and requirements of noise permits.
- (9) Reviewing and analyzing noise-related applications and issuing permits after collection of issuance fees.
- (10) Reviewing and examining preventive plans for activities whose environmental permit requires periodic control and noise level reduction.
- (11) Inspecting, monitoring, and reporting violations of these Executive Regulations; in addition to coordinating with Ministry of Interior, as needed, on matters pertaining to apprehending violators.

#### **Article (4) - Standards of Noise Level for Residential and Commercial Areas**

- (1) Standards of noise level for residential and commercial areas shall apply as per the following categories:
  - a. **Category (A):** Low-density residential areas in addition to tourist attractions, recreational parks, surroundings of hospitals, schools, elder care centers, nurseries, and environmentally sensitive areas.
  - b. **Category (B):** Medium-density residential areas.
  - c. **Category (C):** High-density residential areas in addition to areas of both residential and commercial activities.
  - d. **Category (D):** Commercial areas, including warehouses and financial centers.
- (2) It is prohibited to exceed the standards of noise level for residential and commercial areas set forth in table (1), with no prior permit from the Center.

**Table (1): Standards of Noise Level for Residential and Commercial Areas**

<b>Category</b>	<b>Daytime L<sub>Aeq</sub>, T(dB)</b>	<b>Night-time L<sub>Aeq</sub>, T(dB)</b>
A	50	40
B	55	45
C	60	50
D	65	55





### Article (5) – Standards of Noise Level for Roadsides

- (1) These standards apply to main roadsides and highways.
- (2) It is prohibited to exceed the standards of noise level for roadsides set forth in table (2), with no prior permit from the Center.

**Table (2): Standards of Noise Level for Roadsides**

<b>Daytime</b> <b>L<sub>Aeq</sub>, T(dB)</b>	<b>Night-time</b> <b>L<sub>Aeq</sub>, T(dB)</b>
70	65

### Article (6) – Standards of Noise Level for Industrial Zones

- (1) These standards apply in industrial zones (including the outdoor premises of activities).
- (2) It is prohibited to exceed the standards of noise level for industrial zones set forth in table (3), with no prior permit from the Center.

**Table (3): Standard of Noise Level for Industrial Zones**

<b>Daytime</b> <b>L<sub>Aeq</sub>, T(dB)</b>	<b>Night-time</b> <b>L<sub>Aeq</sub>, T(dB)</b>
70	65

### Article (7) - Allowed Limits of Noise Level in Construction Work Sites

- (1) It is permitted to exceed the standards of noise level set forth in articles (4), (5) and (6) of these Executive Regulations in construction work sites from 7.00 am to 6.00 pm.
- (2) The excess referred to in clause (1) of this article shall be in accordance with the correction values set forth in table (4) as a maximum limit.
- (3) It is prohibited to exceed the “corrected” limits of permitted noise levels in construction work sites during the specified periods, unless a prior permit is issued from the Center.

**Table (4): The Correction Values of Allowed Noise Levels in Construction Work Sites**

<b>Period of construction activities</b>	<b>Corrections applied to the allowed noise levels</b> <b>L<sub>Aeq</sub>, T(dB)</b>
Up to 2.5 hours	10





From 2.5 to 8 hours	5
Over 8 hours	0

### **Article (8) - Monitoring Noise Levels**

The environmental permit holder who is hereby bound to monitor noise levels shall:

- (1) Comply with the standards and requirements pertaining to monitoring noise levels, set forth by the Center.
- (2) Keep noise levels monitoring data for a period of no less than 3 years and submit it to the Center whenever requested.

### **Article (9) - Modelling and Planning for Reducing Noise Levels**

- (1) The Center shall be entitled to request persons to model noise levels and display outcomes on maps, and to develop and implement an action plan for reducing noise levels in the following cases:
  - a. During the issuance period of an environmental permit to establish new activities in accordance with provisions of the Executive Regulations for Environmental Permits to Establish and Operate Activities.
  - b. In the event of a complaint related to existing activities.
  - c. Any other case specified by the Center based on the findings of inspection, or environmental audit study.
- (2) The persons concerned with provisions of clause (1) of this article shall comply with the Center's requirements pertaining to modelling and planning reducing noise levels.

### **Article (10) - Noise Permits**

- (1) Each applicant for a permit which authorizes its holder to temporarily exceed the periods or standards of noise levels set forth in these Executive Regulations shall submit an application to the Center in accordance with the Center's forms and requirements
- (2) The Center shall issue its decision on permit applications within five (5) working days, to be as of the registration date of each application which shall contain all the required data. The Center may, if needed, extend this period by an additional five (5) working days.
- (3) The Center shall issue its decision on the permit application after the collection of issuance fees.
- (4) In the event that the permit application is denied, the decision shall be justified.







- (5) In the event of approval of the permit request, the Center shall issue the permit, including its validity period, along with a timetable for improving noise levels (as applicable), the adjusted periods or limits allowed, and other requirements.
- (6) The permittee shall comply with the permit's controls and requirements.
- (7) The permittee shall submit to the Center the periodic reports on the progress of implementation of the proposed action plan to comply with the allowed noise levels as specified in the permit's requirements.

### **Article (11) - Violations Reporting and Penalties Imposition**

Violations of provisions of these Executive Regulations shall be reported and penalties set forth in table (5) shall be applied in accordance with the Executive Regulations for Violations Reporting and Penalties, of the Environmental Law.

**Table (5): Violations and Penalties**

<b>Number</b>	<b>Violation</b>	<b>Penalty (Saudi Riyals)</b>	<b>Comments</b>
1.	Not providing the Center with the requested data pertaining to monitoring noise levels	From 3,000 to 10,000 (for each notice issued by the Center)	Depending on data significance and scale, and on the affected zone
2.	Not keeping the monitoring data for the period set forth in article (8)	5,000 (for each year)	
3.	Not complying with the allowed limits of periods and noise	From 5,000 to 10,000 (for each excess notice issued by the Center)	Depending on the excess level, and on the significance and area of the affected zone
4.	Not complying with the controls and requirements of noise levels monitoring	From 2,000 to 30,000 (for each requirement)	Depending on the noise level, the environmental impact, and the significance and area of the affected zone
5.	Not complying with the controls and requirements	From 2,000 to 10,000	Depending on the noise level, the environmental





Number	Violation	Penalty (Saudi Riyals)	Comments
	of noise levels modelling, and mapping of outcomes		impact, and the significance and area of the affected zone
6.	Not developing an action plan for reducing noise levels after receiving a notice from the Center	From 1,000 to 20,000 (for each day of delay)	Depending on the noise level, the environmental impact, and the significance and area of the affected zone
7.	Not complying with the controls and requirements of noise permits	From 5,000 to 20,000 (for each requirement)	
8.	Not submitting periodic reports to the Center on the progress of implementation of the plan related to complying with the allowed limits of noise.	From 5,000 to 20,000 (for each report)	Depending on data significance and scale, noise level, environmental impact, and significance and area of the affected zone





## Appendix (1) - Requirements for Monitoring Noise Levels

### First: Information to be Recorded

The following information should be recorded for audit and reporting purposes:

1. The date, time, location of the measurements and the name of the operator undertaking them, in addition to the photographic records for each measurement location.
2. The type of instrumentation including serial numbers of all elements of measurement system and the calibrator used, the measurement procedure and any calculation used
3. The settings of the sound level meter including the dynamic range, slow or fast response, etc.
4. A schematic map of the area showing:
  - a. A description of measurement locations
  - b. Nearby sensitive noise receivers
  - c. Location of potential future noise receivers within the area
  - d. Details of the nature of the ground between source and measurement position, i.e., acoustically hard or soft ground
  - e. The nature and form of any barriers between source and receiver
  - f. Any significant noise sources other than the specific noise source under investigation.
5. A description of the time aspect of the measurements. i.e., the reference and measurement time intervals, including details of sampling, if used
6. Measurement positions including microphone height above ground and distance from reflective surfaces
7. Where appropriate, a description of the sound propagation model used
8. The following conditions during the measurements should be described qualitatively and quantitatively where appropriate:
  - a. Precipitation
  - b. Wind speed and direction
  - c. Presence of conditions likely to lead to temperature inversion (i.e., clam nights with little cloud cover)
  - d. Relative humidity
  - e. Variability and character of noise emission sources





## Second: Measurement Conditions

1. Where possible, maximum effort should be exercised in monitoring noise levels during meteorological conditions that are approximately consistent with the following:
  - a. Wind speed between 1 and 5 meters per second
  - b. Wind direction within an angle of 45° of the direction connecting the dominant sound source and the Center of the specified measurement area
  - c. The wind direction comes from the specific noise source towards the noise receiver
  - d. There should be no strong temperature inversions near to the ground
  - e. There should be no precipitation
  - f. The ground should not be wet, or snow covered
2. For all noise measurements:
  - a. There should not be any electrical and electromagnetic interference (i.e., nearby power cables, radio transmitters)
  - b. The axis of maximum sensitivity of the microphone must be directed towards the noise source
  - c. For all measurements, the microphone must be fitted with a wind shield as recommended to be appropriate by the manufacturer/supplier. Noise from wind acting directly on the microphone or on the nearby structures or vegetation should not interfere with the measurements
3. In the case these conditions cannot be met, details of the adverse conditions should be recorded for information and additional measurements may need to be undertaken as appropriate
4. Taking into consideration clause (3) of this section, if any of the conditions set forth in clauses (1) and (2) cannot be satisfied, the Center shall take into account the impact of these measurement conditions on the operator's ability to comply with the specified noise standards.



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