



Bangladesh Power Development Board

**INTEGRATED MANAGEMENT SYSTEM
(BASED ON ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018
STANDARDS)**

PROCEDURE FOR AIR EMISSION AND NOISE MONITORING



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Document No.:
BPDB-IMS-PR-065
Revision No.: 00
Effective Date: 01-11-2021
Page 2 of 4

1.0 Purpose

With this document the BPDB ensures that it complies with all the applicable requirements for Air Emission and Noise Monitoring.

2.0 Scope

To identify all the requirements for air Emission and Noise parameters; device and ensure compliance with those requirements.

3.0 Terms and Definitions

None

Abbreviations

DOE - Department of Environment
GTG - Gas Turbine Generator
IFC - International Finance Corporation
CO - Carbon Monoxide
M3 - Meter Cube
MEF - Ministry of Environment and Forestry
Mg - Milligram
Nm3 - Normal Meter Cube
NOx - Nitrogen Oxide
PM - Particulate Matter
PPM - Parts Per Million
SO2 - Sulphur Dioxide
UK - United Kingdom
WB - World Bank
ECR 1997 - Environmental Conservation Rules 1997
QHSE – Quality, Health, Safety and Environment

4.0 Roles and Responsibility

MR

Is responsible for:

- Identifying and monitoring that all the requirements comply
- To report any non-compliance to the respective departments

Head of the Departments

- Devising strategy to comply with the requirements of Air Emission and Noise parameters
- Take corrective action for any noncompliance
- Risk management for this particular issue

Prepared By		Approved By	
Reviewed By			



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Page 3 of 4

5.0 Procedures

BPDB get all its emission parameters tested from a reputed third party. BPDB also has in-house capacity to test NO_x, CO and CO₂ and PM 10 along with SMP for air, for noise we monitor the decibel value. QHSE manager keeps all the records.

Reporting

- We communicate our testing reports twice a year with the appropriate authority.
- If there is any non-conformity or non-compliance, the respective head of department conduct root cause analysis and take corrective action.

Framework for Monitoring

- We measure the air emission quality twice a year, both from internally and from a third party.
- We measure all the stack emission, ambient and indoor air quality and noise pollution in our facility
- We keep record as per the following
 - Testing date and hour
 - Test result
 - Name of testing equipment's, with date of calibration
 - Sampling method
 - Error and uncertainty, if significant
- We communicate our results with appropriate authorities
- We evaluate our air emission quality in compliance with the table – 1 and table – 2

Table – 1: Air Quality Parameters for Ambient Air

Parameter	DOE*Allowable Range or Limit	Measured Value
Suspended Particulate Matter (SPM), µg/m ³ (10µm or less in diameter)	200	
Nitrogen Oxides (NO_x), µg/m ³	80	
Sulfur Di-Oxide (SO₂), µg/m ³	Not required as fuel input does not contain sulfur compounds.	
Carbon Monoxide (CO), µg/m ³	2000	

*Standards Value of Air Pollution, Schedule-2, For Residential and Mixed Use

Table – 2: Stack Emission Quality Allowable Limit

Parameter	DOE*Allowable Range or Limit	Measured value
NO _x , ppm	40	
SO _x , ppm	Not required as fuel does not contain	

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Page 4 of 4

	sulphur compounds.	
CO, mg/m ³	N/A	
Particulate Matter (PM ₁₀), mg/m ³	150	
CO ₂ , % Volume	N/A	
*Schedule-11, Standards for gaseous emission from industries.		

For noise, we follow the requirements of table – 3

Sample Location	Bangladesh Sound Level Limits as per DOE and ECR 1997 (dBA)		Measured Value	
	Daytime (07:00-22:00 hrs)	Night Time (22:00 – 07:00 hrs)	Daytime (07:00-22:00 hrs)	Night Time (22:00 – 07:00 hrs)
Mixed – Use (dominated by industrial functions)	75	70		

6.0 Reference

Clause of 9.1.1 and 9.1.2 ISO 14001:2015 Standard

7.0 Appendix

Records will be maintained as per table – 1, table – 2 and table – 3

8.0 REVISION HISTORY

SI No.	Revision Number	Section	Change Made	Date of Revision

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