

# CERTIFICATION OF ENVIRONMENTAL LABORATORIES REGULATIONS, 2000

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**TEXT**

**CERTIFICATION OF ENVIRONMENTAL LABORATORIES  
REGULATIONS, 2000**

[10<sup>th</sup> February, 2000]

**NOTIFICATION**

*S.R.O. 258-(1)/2000. – In exercise of the powers conferred by section 33 of the Pakistan Environmental Protection Act, 1997 (XXXIV of 1997), read with clause (k) of sub-section (1) of section 6 thereof, the Pakistan Environmental Protection Agency with the approval of the Federal Government, is pleased to make the following regulations, namely:-*

**1. Short title and commencement.-** (1) These regulations may be called the National Environmental Quality Standards (Certification of Environmental Laboratories) Regulations, 2000.

(2) They shall come into force at once.

**2. Definitions.-** (1) In these regulations, unless there is anything repugnant in the subject or context,

(a) “**Act**” means the Pakistan Environmental Protection Act, 1997 (XXXIV of 1997);

(b) “**certification**” means certification of a laboratory as an environmental laboratory under these regulations;

(c) “**certificate**” means certificate issued under regulation 7;

(d) “**Committee**” means the Advisory Committee on Laboratory Certification established by the Federal Government under sub-section (6) of section 5 of the Act;

(e) “**Director General**” means the Director General of the Pakistan Environmental Protection Agency;

(f) “**environmental laboratory**” means a laboratory to whom certification as an environmental laboratory has been granted under these regulations;

(g) “**laboratory**” means any premises equipped to conduct scientific and technical experiments, tests, analyses, studies, investigations; and

(h) “**Schedule**” means schedule appended to these regulations.

(2) All other words and expressions used in these regulations but not defined herein shall have the same meanings as are assigned to them in the Act.

**3. Functions of an environmental laboratory.-** The functions of an environmental laboratory shall be:-

(a) to test and analyze samples of air, water, soil, effluents or wastes sent to it by any factory or any person authorized by the Federal Agency or a Provincial Agency to determine whether such samples comply with the National Environmental Quality Standards;

(b) to measure noise being emitted at any place by any industrial or other activity or motor vehicle;

(c) to issue test reports containing the results of tests and analyses carried out under clauses (a) and (b);

(d) to carry out such experiments, studies and investigations as may be required by the Federal Agency to monitor and enforce and where necessary to propose revision of the National Environmental Quality Standards;

(e) to send an annual report of its activities to the Federal Agency, including a list of all test reports issued by it; and

(f) to carry out such other functions as may be entrusted to it by the Federal Agency from time to time.

**4. Application for certification.**— (1) Any laboratory which fulfils the criteria laid down in regulation 5 may make an application in the form set out in Schedule I to the Federal Agency for certification as an environmental laboratory.

(2) Every such application for certification shall be accompanied by a non-refundable scrutiny fee at the rate specified in Schedule II.

**5. Criteria for certification.**— (1) Subject to clause (2), a laboratory shall not be certified as an environmental laboratory unless it fulfils the following criteria, namely:

- (a) the laboratory is located in a clean area and not adjacent to an open sewerage drain of factory from which emissions of air pollutants or discharge of effluents or wastes may interfere with, contaminate or otherwise adversely effect the reliability of its tests and analyses;
- (b) the building in which the laboratory is housed is suitable in size, design and quality of construction, for use as an environmental laboratory;
- (c) the laboratory has qualified and experienced scientific and technical staff and appropriate analytical equipment and apparatus as specified in Schedule IV
- (d) the laboratory has deposited with the Federal Agency the scrutiny fee and certification fee at the rates specified in Schedule II;
- (e) the laboratory has installed a comprehensive scientific system of reporting test results, supported by data handling facilities; and
- (f) the laboratory has proper waste disposal arrangements.

(2) A laboratory may be certified as an environmental laboratory for testing of water, liquid effluents, wastes, soil, gaseous emissions or noise or a combination of these for specific National Environmental Quality Standards parameters, in which case the requirements of analytical equipment and apparatus specified in Schedule IV, scientific and technical staff specified in Schedule III will be adjusted accordingly.

**6 Scrutiny of application.**— (1) Every application for certification shall be scrutinized by the Committee.

(2) The Committee shall carry out such inquiry as it may deem necessary to verify and evaluate the data mentioned in the application which shall include sending of trial sample; and obtaining sample test reports and a visit to the laboratory by the Committee itself, or its subcommittee, or a panel of experts appointed by the Committee for the purpose, for an on site assessment of its capability and capacity as to whether or not it fulfils the criteria laid down in regulation 5.

(3) Subject to clause (4), the Committee shall submit its recommendations, in writing, to the Federal Agency, who may, after such further inquiry as it may consider necessary, accept or reject the said recommendations.

(4) In case the Federal Agency decides to reject the recommendations referred to in clause 3, it shall record reasons for decision.

**7. Decision on application.**— (1) Subject to clause 2, an application for certification may be rejected, accepted in full, or accepted partially for certain purposes or parameters only.

(2) Before the Federal Agency decides to reject an application or accept it partially or conditionally, shall give the applicant an opportunity of being heard.

(3) Where the Federal Agency rejects an application, the applicant shall be informed of the reasons for such rejection.

(4) Subject to clause (5), rejection of an application for certification shall not debar a laboratory from submitting a fresh application for certification.

(5) A fresh application shall not be entertained until the lapse of at least three months from the date of rejection of an application.

**8. Issue of certificate.**— (1) Where the Federal Agency approves an application for certification in full or partially or conditionally, the applicant shall be informed accordingly and asked to deposit with the Federal Agency within fifteen days, the certification fee at the rate specified in Schedule II.

(2) On receipt of the certification fee, the Federal Agency shall issue a certificate to the laboratory in the form set out in Schedule V and notify the laboratory to be an environmental laboratory in the official Gazette.

(3) If a certificate is defaced, damaged or lost, duplicate thereof may be issued on payment of such fee as is specified in Schedule II.

**9 Conditions of certification.-** (1) An environmental laboratory shall-

- (a) Comply with all relevant provisions of the Act and rules and regulations;
- (b) carry out all tests and analyses, measurements, experimental studies and investigations with due diligence and in accordance with such guidelines, procedures and methods as may be stipulated by the Federal Agency;
- (c) carry out and maintain record of calibration of its equipment and apparatus;
- (d) follow the quality control and quality assurance procedures established by the Federal Agency and participate in performance, system audits, quality control and quality assurance programs organized by the Federal Agency or a Provincial Agency;
- (e) keep its premises neat and clean at all times;
- (f) allow any member of the Committee or any officer of the Federal Agency, duly authorized in this behalf, to enter and inspect equipment and apparatus used in conducting tests and analyses and the reports and records in respect thereof;
- (g) retain records of all tests and analyses and measurements conducted by it for a period of three years from the date thereof;
- (h) take adequate safety measures and precautions against fire hazards and accidents including provision of first-aid facilities;
- (i) ensure availability in its store of adequate stocks of chemicals, back-up equipment and apparatus, and spare parts;
- (j) ensure that it fulfils the criteria laid down in regulation 5 at all times, and that if at any stage any equipment, apparatus or staff is required to be replaced, the replacement equipment, apparatus or replacement staff is of equivalent, or better, specifications, or qualifications and experience, respectively;
- (k) display the certificate issued to it under regulation 8 and a list of its fees for various tests and analyses and measurements, at a prominent place in its premises; and
- (l) submit to the Federal Agency an annual report including a list of all tests and analyses conducted by it relating to the environment.

(2) An environmental laboratory shall not, without the prior permission, in writing, of the Federal Agency-

- (a) shift its location or remove any equipment or apparatus from its premises but the equipment or apparatus requiring repair or maintenance outside the premises may be removed for this purpose for a specific period under intimation to the Federal Agency;
- (b) charge more than the rates as may be fixed from time to time by the Federal Agency for specified tests and analysis; or
- (c) sub-contract any work to any other laboratory.

(3) Certification of an environmental laboratory shall not be transferable to any other laboratory.

**10. Validity of certification.-** (1) Subject to clause (2), a certificate issued under regulation 8 shall, unless earlier suspended or revoked, be valid for a period of three years from the date of issue.

(2) If an application for renewal of certification is made under regulation 13, the certificate shall continue to remain valid till the application for renewal is decided.

**11. Bar to function without certification.-** No laboratory shall function as an environmental laboratory unless it is granted certification under these regulations.

**12. Test reports.-** An environmental laboratory shall issue test reports in the form set out in Schedule VI containing the results of tests and analysis carried out in discharge of its functions as provided under clauses (a) and (b) of regulation 3.

**13. Renewal of certification.-** (1) An application for renewal of certification shall be made in the form set out in Schedule IV, to the Federal Agency at least forty- five days prior to the date of expiry of the certificate issued under regulation 8.

(2) An application for renewal shall be accompanied by a copy of the annual report of the activities of the environmental laboratory.

(3) An application for renewal shall be dealt with, scrutinized and decided exactly in the same manner as an application for certification and the provisions of these regulations relating to an application for certification shall, mutatis mutandis, apply to an application for renewal of certification.

(4) The fee for renewal of certification shall be payable at the rate specified in Schedule II, and the certificate issued on receipt thereof shall also be in the form set out in Schedule V.

**14. Revocation or suspension of certification.-** (1) Without prejudice to any other action that may be taken against an environmental laboratory under the Act, Rules or regulations or any other law for the time being in force, the Federal Agency may, by an order in writing stating the reasons therefore, revoke a certification, or suspend it for such period as the Federal Agency deems fit, if the environmental laboratory-

- (a) fails to comply with any of the conditions of certification listed in regulation 9;
- (b) violates aids or abets in the violation of, any of the provisions of the Act, rules or regulations;
- (c) issues any report which is false, or which is designed to misrepresent or conceal or suppress any material fact;
- (d) has obtained certification through fraud or misrepresentation;
- (e) fails or ceases to perform or is rendered incapable of performing any of the functions of an environmental laboratory listed in regulation 3; or
- (f) no longer fulfils the criteria for certification as an environmental laboratory as laid down in regulation 5.

(2) The Federal Agency shall, before revoking or suspending a certification, provide the environmental laboratory an opportunity of being heard.

(3) Where any order of revocation or suspension has been passed, the laboratory shall forthwith surrender its certificate to the Federal Agency who shall make an entry of the revocation or suspension thereon.

(4) Certificate shall be returned to the laboratory on expiry of the suspension period or on restoration of the certification in appeal, after the Federal Agency has made necessary entry thereon.

(5) Where certification of an environmental laboratory has been revoked, it shall not be eligible to apply again for certification until lapse of at least one year from the date of such revocation.

**15. Appeal.-** (1) Any person aggrieved by an order of the Federal Agency on an application for certification or an application for renewal of certification or by an order revoking or suspending, or refusing to revoke or suspend, a certification may, within thirty days of the date of communication of the impugned order, file an appeal with the Environmental Tribunal, as provided under sub-section (1) of section 22 of the Act.

(2) The appeal shall be in such form and be accompanied by such fees as may be prescribed in the rules made in this behalf.

**SCHEDULE I**  
(See regulations 4 and 13)

**APPLICATION FOR GRANT/RENEWAL OF CERTIFICATION AS AN ENVIRONMENTAL LABORATORY**

**Part A. GENERAL INFORMATION:**

1. Name of laboratory.  
Address.  
Tel.  
Fax.  
Email.
2. Type of laboratory (please tick appropriate box):  
 Government  Public sector  Semi- autonomous body  
 Autonomous body  Private sector  other (please specify)
3. Mandate or purpose of laboratory (please tick appropriate box and specify nature and field of operation):  
 Research and development.  
 Quality assurance.  
 Quality control.  
 Other (please specify).
4. Year of establishment:
5. Area of laboratory: (sq.ft) (please attach copy of approved building plan and equipment layout plan).
6. Has the laboratory been certified by any other authority?  Yes  No  
If yes, please specify. \_\_\_\_\_

**Part B. STAFF:**

7. List of total scientific and technical staff:  
(please attach list in the following form along with a copy of bio-data of Chief Executive).

S.No.	Name.	Designation.	Qualifications (with specification).	Experience in analytical laboratory work (No. of years).
(1)	(2)	(3)	(4)	(5)

**Part C. EQUIPMENT:**

- 8 List of significant analytical equipment and apparatus:  
(Please attach list in the following form of functional equipment only).

S.No	Name of equipment/ apparatus (with make).	Year of manufacture.
(1)	(2)	(3)

9. Which of the National Environmental Quality Standards parameters can be measured (other than those mentioned at entry No. 8 above) using wet analysis methods?
10. Back-up equipment and apparatus in the laboratory instrumental and any services agreement for repair and maintenance of workshop for equipment/apparatus.  
 Yes  No. If yes, please specify: \_\_\_\_\_

**Part D. CHEMICALS:**

11. (a) Whether analytical grade chemicals are available in store for 6 months [ ] 12 months [ ] 2 years [ ].  
(b) What is source for supply of chemicals. [ ]  
Local purchase [ ] Direct import.

**Part E. REPORTING SYSTEM:**

12. Does the laboratory has computerized data handling facilities?  
[ ] Yes [ ] No.  
13. Are there other facilities available in the laboratory?  
[ ] Yes [ ] No. If yes, please specify: \_\_\_\_\_  
.  
14. Whether adequate facilities for collection and storage of samples are available:  
[ ] Yes [ ] No.  
15. Whether waste handling procedures and facilities for waste disposals are available:  
[ ] Yes [ ] No.

**Part F. EXPERIENCE:**

- 16 When did the following activities started?  
(a) analytical work : \_\_\_\_\_  
(b) environment related work : \_\_\_\_\_
- 17 List some significant environment-related analytical work and research studies carried out, indicating the sponsors and beneficiaries (in case of application for renewal, attach copy of annual report of activities) \_\_\_\_\_
18. Does the laboratory provide training in environment related laboratory techniques?  
[ ] Yes [ ] No. If yes, please specify \_\_\_\_\_
19. Total current annual budget: Rs \_\_\_\_\_
- 20 List revenue generated from environment-related analytical work during the last five years.

**SCHEDULE II**

[See regulations 4 (2) , 5 (1)(d), 8(3) and 13(4)]

**RATES OF FEES IN RESPECT OF AN APPLICATION FOR GRANT OR RENEWAL OF CERTIFICATION**

S.No.	Name of fee.	Rate (Rs).
(1)	(2)	(3)
1.	Scrutiny fee.	5,000/=
2.	Certification fee.	3,000/=
S.No.	Name of fee.	Rate (Rs).
(1)	(2)	(3)
3.	Issue of duplicate certificate.	2,000/=
4.	Renewal of certification	3,000/=

### SCHEDULE III

[See regulations 5(1) (c) and 5(2)]

#### SCIENTIFIC AND TECHNICAL STAFF OF AN ENVIRONMENTAL LABORATORY

S. No	Title or equivalent.	Qualification.	Experience (minimum)	Number required (minimum)
(1)	(2)	(3)	(4)	(5)
1	Chief Analyst.	Ph. D., M.Phil or M. Sc. (Analytical Chemistry preferably Physical/ Organic/ Inorganic Chemistry).	For Ph.D. 3 years for M.Phil. 5 years and for M.Sc. 7 years in analytical laboratory work testing of air/ water pollutants, noise, effluents or wastes preferably with regard to the National Environmental Quality Standards parameters.	One.
2.	Analyst.	M.Sc. or M.Phil. (Analytical Chemistry preferably Physical/ Organic/Inorganic Chemistry).	For M.Phil. 1 year and for M.Sc. 3 years in analytical laboratory work preferably in analysis of effluents or wastes.	Two.
2.	Deputy Analyst and/or Assistant Analyst.	B.Sc (with chemistry as one of the major subject).	5 years and 3 years for Deputy Analyst and Assistant Analyst, respectively, in analytical laboratory work preferably with regard to the National Environmental Quality Standards parameters testing.	Three.
4.	Laboratory support staff.	F. Sc (with chemistry as one of the major subject).	1 year in analytical laboratory work.	Three.

Note. The number of analysts, Deputy/ Assistant Analysts and laboratory support staff may be reduced if the laboratory is to be certified for testing only some pollutants or National Environmental Quality Standards parameters [see regulation 5(2)].

### SCHEDULE IV

[See regulations 5(1) (c) and 5(2)]

#### ANALYTICAL EQUIPMENT AND APPARATUS OF AN ENVIRONMENTAL LABORATORY

S.No	Description.	Requirements.
(1)	(2)	( 3 )
1	<u>Analytical Instruments.</u>	A. <u>For Liquid Effluents/Wastes:</u> At least one of - <ul style="list-style-type: none"> <li>• Spectrophotometer;</li> <li>• Atomic Absorption Spectrophotometer;</li> <li>• High Performance Liquid Chromatograph; or</li> <li>• Gas Chromatograph; and the following laboratory apparatus and wet analysis facilities-</li> <li>• Conductivity Meter;</li> <li>• pH meter;</li> <li>• Analytical Balances;</li> <li>• Biology Oxygen Demand determination facilities;</li> <li>• Liquid Effluent Samplers;</li> <li>• Thermometer/temperature measuring devices;</li> <li>• Incubator (minimum range 15-40<sup>0</sup> C );</li> <li>• Furnaces;</li> </ul>



- Ovens;
- Refrigerators; and
- A-grade volumetric glass apparatus.

**B. For Gaseous Emissions:**

- At least one of Air/Dust Sampler;
- Analyzer (continuous monitoring and portable) for measuring oxides of sulfur, oxides of nitrogen, carbon monoxide, hydrogen fluoride and hydrogen sulfides;
- Smoke Analyzer or Ringelmann Scale; or
- Emission Analyzer.

**C. For Noise:**

- Sound Level Meter with equivalent noise level measuring facilities; and
- Noise Frequency Analyzer.

- |    |                                  |  |
|----|----------------------------------|--|
| 2. | Back-up equipment and apparatus. | Adequate stocks in store.  |
| 3. | Calibration.                     | Arrangements for regular calibration and checks for proper maintenance of record pertaining          |
| 4. | Chemicals.                       | Adequate stocks and store and assured regular source of supply.                                      |
| 5. | Test Reporting System.           | Comprehensive and scientific system of reporting test results supported by data handling facilities. |

## **SCHEDULE V**

[See regulations 8(2) and 13(4)]

### **PAKISTAN ENVIRONMENTAL PROTECTION AGENCY CERTIFICATE REGARDING CERTIFICATION AS AN ENVIRONMENTAL LABORATORY**

In exercise of power conferred by clause (k) of sub section (1) of section 6 of the Pakistan Environmental Protection Act, 1997 (XXXIV of 1997), the Federal Agency is pleased to certify the laboratory mentioned below as an Environmental Laboratory.

Name. \_\_\_\_\_

Address. \_\_\_\_\_

Certificate No. \_\_\_\_\_

1 This certification is valid for (delete items not applicable):

- (a) Liquid effluents/wastes.
- (b) Gaseous emissions.
- (c) Noise.
- (d) Only the following National Environmental Quality Standards parameters:

2. This certification is subject to the conditions laid down in regulation 9 of the National Environmental Quality Standards (Certification of Environmental Laboratories) Regulations, 1999.

3. This certificate is valid until \_\_\_\_\_ unless earlier suspended or revoked.

Dated. \_\_\_\_\_

Director General  
Federal Agency,  
Islamabad.

### SCHEDULE VI

(See regulation 12)

**(NAME OF THE ENVIRONMENTAL LABORATORY THAT CARRIED OUT THE ANALYSIS)**  
**CHEMICAL ANALYSIS TEST REPORT**

Report reference No: \_\_\_\_\_ Date: \_\_\_\_\_

Name of industry: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No. \_\_\_\_\_

Nature of sample: \_\_\_\_\_

Date of sample received: \_\_\_\_\_ (Grab/Composite). \_\_\_\_\_

Date of sample collection: \_\_\_\_\_

Sample collected/sent by: \_\_\_\_\_

Date of completion of analysis: \_\_\_\_\_

S.No.	Parameters	NEQS Limits.	Concentration.	Method used.	Remarks.
<b>A. <u>Field Analysis</u></b>					
<b>B. <u>Lab. Analysis</u></b>					

National Environmental Quality Standards.

1. Sample analyzed by: \_\_\_\_\_

Name of Chief Analyst with seal: \_\_\_\_\_

2. Signature of incharge of the environmental laboratory: \_\_\_\_\_

Name:

Designation:

Date: