Draft Guidelines for Registration of EIA Consultants, 2016

1.0 Introduction

1.1 Why Registration of EIA Consultants?

Environmental Impact Assessment (EIA) is a statutory requirement for all developmental and industrial activities in the province. EIA reports prepared in the province, however, do not measure up to the desired quality. Some of the reasons for this are:

- Want of competence, as defined by relevant education, training, and experience, of consultants carrying out EIAs
- Lack of robust data used in EIAs
- Tendency of consultants to follow the "cut and paste" method in EIA reports
- Conflict of Interest arises as EIA consultants work for and on behalf of the project proponents

It, therefore, felt that a well designed Guideline which defines the requirements for a consultant or a consultant organization to prepare a good quality EIA report will contribute towards improving the quality of EIAs in the province.

Provincial Environmental Protection Agency is the organization to review and decide on Environmental Impact Assessment reports and then ensure implementation of the recommendations of the reports.

1.2 What is the Guideline?

Environmental Impact Assessments are essentially multi-disciplinary activities where inputs are required from specialists having knowledge of the industry/sector for which an EIA is to be carried out as well as in functional areas like land use, air pollution control, air quality modeling, water pollution control, noise and vibration, ecology and bio-diversity, socio economic aspects, risks, and hazard management, etc.

The key person in developing an EIA Report is the EIA Coordinator (EC) who should have broad knowledge about the project, as well as the functional areas which are likely to be affected by the activities related to the project in its construction, operation and the closure phases. The role of the coordinator includes but not be limited to setting-up the team, visiting the site with the team, drawing up the terms of reference (TOR), organize various activities to meet the requirements of the TOR, evolving work schedule and seeing that data are appropriately utilized for assessment, mitigation and monitoring.

Functional Area Experts (FAEs) are expected to assess the impacts from the proposed development or industrial activities in their respective areas of expertise and provide their expert inputs to the EIA Coordinator. The EIA Coordinator is then able to

collate and review the projected impacts and develop an overall Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP).

These "Guidelines for Registration of EIA Consultant Organizations" evolved by EPA Punjab (the Guidelines) identifies the following basic requirements of the EIA Consultant Organization:

- a) Qualification and experience of ECs and FAEs
- b) Requirements for field investigations and laboratory arrangement to ensure the quality of the baseline data
- c) Quality management systems to be followed
- d) Office facilities and other enabling factors to be provided by an organization

1.3 Why should an EIA Consultant Organization get registered?

Apart from the fact that currently it is mandatory for organizations which prepare EIA reports for obtaining environmental clearance, to get registered with the provincial EPA, some of the other advantages are:

- a) A system of yearly assessment by experienced assessors providing valuable input for improvement
- b) Listing in the Punjab EPA website, which is an important database for prospective clients
- c) Use of the EPA Punjab logo, a mark of quality in stationary, to improve the brand image of the organization

1.4 How are these Guidelines implemented?

For the implementation of these Guidelines across the province, EPA Punjab is guided by a group of eminent professionals in the field of environmental management and allied subjects structured into four groups as follows:

- a) Technical Committee comprising 5-7 experienced professionals with proven track record. It guides EPA Punjab in developing the Guidelines as well as the assessment process.
- b) Registration Committee comprising 5-7 eminent persons. Apart from recommending registration, it also issues clarifications on the Guidelines from time to time, as necessary.
- c) EPA Punjab Assessors they are a group of senior and experienced professionals with relevant experience, who carry out technical assessment of the applications as well as office assessment including interaction with experts.
- d) EPA Staff it comprises technical staff which coordinates the entire process of assessment and registration.

2.0 The Process

This comprehensive document describes the requirements of human resources, quality management systems and procedures to be followed, the integrity of primary data, the assessment process and the registration criteria. Various aspects of the process detailed in the following sections are delineated as:

- a) Eligibility (who can get registered) and extent of the Guidelines
- b) Experts qualification, experience, and requirement
- c) Field investigation and laboratory arrangements
- d) Quality management systems to be followed
- e) Assessment process
- f) Registration process
- g) Closure of applications
- h) Fee Structure
- i) Organizational commitment towards developing EIAs

Specific details related to the registration process have been included in Appendices and those related to Application form in Annexures.

3.0 Eligibility and Coverage

3.1 Eligibility

Only organizations will be considered for registration. These can be government, public sector, or private organizations which could be proprietary firms, partnership firms or companies (Pvt. & Public Limited), bodies registered under Society Acts, under Companies Act, Research Institutes, and the like.

Universities including Centers of Excellence, PCSIR labs, other labs and/or research based organizations conducting EIA studies can also apply for registration.

Registration will not be applicable for individuals as EIA consultants.

3.2 Coverage of the Guideline

The registration covers all project listed in the Schedule to Review of IEE/EIA Regulations, 2016. These projects, are also listed in Annexure II of these Guidelines.

4.0 Experts Involved in Preparing EIAs

Experts to be involved in preparing EIA reports and their educational qualification and experience are mentioned below.

4.1 EIA Coordinator

As mentioned earlier, EIA is a multi-disciplinary activity where the central figure is the EIA Coordinator (EC) who should possess the following:

a) Clarity in the concept of the EIA process

- b) Knowledge of the applicable Acts, Rules and regulations
- c) Domain knowledge of the industry/sectors for which EIAs are to be prepared
- d) Broad understanding of the environmental aspects related to the industry or sector
- e) Leadership quality in planning, selecting and guiding the EIA team Thus, for an EIA Coordinator emphasis is given on experience and maturity.

4.1.1 Minimum Educational Qualification for an EC

a) Bachelor's (graduate) degree or equivalent in technical subjects such as Engineering/ Architecture/ Environmental Planning/ Town Planning and the like from a HEC recognized University/ Institution.

or

b) Master's (post-graduate) degree in Science and other subjects – Physical/ Environmental/ Life Sciences/ Social Sciences/ Economics/ Management from a HEC recognized University/ Institution.

In exceptional and rare cases the Registration Committee may waive off this minimum qualification requirement based on the report /recommendation of the assessors.

4.1.2 Minimum Experience of an EC

a) EIA related

Minimum 7 years overall work experience related to EIA preparation, vide Appendix 1 for details.

b) Sector specific (for each Sector applied for)

The EC should also have adequate experience for the sector(s) for which s/he is proposed by the Applicant Firm (AF) in terms of

- (i) having worked in those sectors for at least 2 years or
- (ii) having prepared a minimum of 3 EIA reports for projects in those sectors or
- (iii) having carried out three environmental assignments (such as environmental monitoring/audits, performance audits etc.) in those sectors involving at least one month's exposure or
- (iv) 3 in a combination of (ii) and (iii) vide Appendix 1 for detail.

4.2 Functional Area Experts

FAEs are expected to provide inputs in their respective areas of specialization. They should have:

a) an in-depth knowledge in their respective areas of specialization

- b) a broad understanding of the EIA processes
- c) the capability of assessing the impacts of the project on the physical, biotic, and social environment, as applicable
- d) the knowledge to suggest/vet mitigation measures

In view of the above expected role, the educational background has been given emphasis for the FAEs.

4.2.1 Areas of expertise

Different EIAs will require inputs from diverse functional areas depending on the type and magnitude of the projects and the depth/ extent of the anticipated environmental impacts. The following 12 areas of expertise have been identified which are required for carrying out EIAs:

i.	Land Use	LU
ii.	Air Pollution Monitoring, Prevention & Control	AP
iii.	Meteorology, Air Quality Modeling & prediction	AQ
iv.	Water Pollution Monitoring, Prevention & Control	WP
v.	Ecology & Biodiversity	EB
vi.	Noise & Vibration	NV
vii.	Socio- Economic Aspects	SE
viii.	Hydrology, Ground Water & Water Conservation	HG
ix.	Geology	GEO
х.	Soil Conservation	SC
xi.	Risk & Hazards Management	RH
xii.	Solid & Hazardous Waste Management	SHW
	(including Municipal solid wastes) (SW/MSW)	

4.2.2 Minimum Educational Qualification for FAEs

a) Bachelor's (graduate) degree or equivalent in technical subjects such as Engineering/ Architecture/ Environmental Planning/ Town Planning and the like from an HEC recognized University/ Institution in specific disciplines as mentioned against each functional area vide Appendix 1 for details.

or

b) Master's (post-graduate) degree in Physical! Environmental! Life Sciences/ Social Sciences/ Economics from an HEC recognized University/ Institution in specific disciplines as mentioned against specific functional areas vide Appendix 1 for details.

4.2.3 Minimum Experience for FAEs

- a) An expert should have a minimum 3 years overall experience in the concerned functional area(s) out of which at least 1 year should be in the application of the functional area knowledge in developing EIA report(s) to work as an independent FAE for <u>Category B</u> projects (vide Section 9 below for an explanation on Categories).
- b) To work for projects of <u>Category A</u>, an expert must have minimum 5 years overall experience in the concerned functional area(s) out of which at least 3 years should be in the application of the functional area knowledge in developing EIA report(s), <u>vide Appendix 1</u> for details.

To encourage the entry of fresh graduates/post graduates (as applicable), they would be permitted to work as Associate FAEs for <u>Category B</u> projects under the guidance of an approved FAE <u>vide Appendix 1</u> for details.

4.3 Requirements of Experts

- a) Experts involved in preparing EIA reports, namely ECs and FAEs, can be both, in-house (full time employee) or empanelled.
- b) Any organization seeking registration must have at least one in-house EC. The in-house EC is also eligible to be considered as a FAE in those functional areas for which s/he fulfills the requirements of qualification and experience.
- c) Any organization to be accredited must also have at least two in-house FAEs who, together with the above EC, should have the required qualification and experience covering the core functional areas of AP, WP, SHW, EB and SE.
- d) An expert meeting the requirements of the Guidelines may apply for both, EC and FAE.
 - However, to do justice to the role of an EC and a FAE as envisaged in the Guidelines, an expert may opt for a maximum of 5 sectors as an EC and 4 functional areas as a FAE.
- e) A 'free lance' expert may be shown as an empanelled expert for a maximum five applicant organizations altogether both as an EC & FAE (at the same time s/he should meet the requirement given below under <u>4.3</u> (g)). For such empanelled experts, a declaration has to be submitted in the format given at <u>Annexure V</u> signed by the expert and countersigned by the Authorized signatory of the RO.
- f) An expert employed with a university/college/institute/NGO can represent a maximum three applicant organizations as an empanelled expert provided s/he submits an NOC from an appropriate authority (the Registrar

or an Official authorized by the Registrar in case of a university, the Principal for a college and the Head of the Organization in case of Institutions/NGO).

- g) The cumulative number of sectors/functional areas for which an expert provides his/her services to more than one organization shall be limited to 5 (for EC) and 4 (for FAE). The cumulative numbers for each of the experts get filled up chronologically as the organizations they represent go through the registration process. No more sectors/FAs will be considered for approval of the experts once they reached the permitted numbers for sectors and functional areas.
- h) An expert, who is in full time employment with a company, cannot be proposed as an empanelled expert for another EIA consultant organization.
- i) Submission of any false or misleading information in any of the above aspects, shall lead to cancellation of approval of such experts and/or registration for the organization.

5.0 Field Investigation and Laboratory Arrangement

Collection of primary baseline data is of crucial importance to preparing EIA reports. Primary data are collected for

- a) Physical environment like air, water, soil, noise, etc.
- b) Biotic environment
- c) Social environment, including resettlement and rehabilitation (R&R) plan

Having a detailed 'feel' of the proposed site of the project is of utmost importance for developing the Terms of Reference (TOR) followed by the planning for collecting the primary data at the site.

5.1 Laboratory for monitoring environmental baseline data

The Applicant Organization may have an arrangement for in-house or external laboratories for collecting baseline environmental data. If it engages more than one laboratory to cover its requirements of EIAs being carried out in different parts of the province, it should have a clear internal guideline of assigning the work to a particular laboratory and maintaining the necessary record of the same.

Laboratories engaged in the baseline data collection must have EPA Punjab Certification. The laboratories should be able to carry out testing/analysis of various parameters required in developing EIA reports including the following:

- a) Ambient Air Quality
- b) Stack emissions
- c) Water & wastewater quality
- d) Soil characteristics

e) Noise

Wherever such data generation includes collection of samples at the site(s) followed by analysis of the same at the laboratory, a detailed written down procedure should be available with the AO including collection methodologies and preservation of such samples.

In case an AO has an in-house laboratory which is not certified by EPA Punjab, it may be permitted to use such a laboratory for one year as an interim arrangement. However, it must get the in-house laboratory certified or ties up with an external laboratory with such credentials prior to the first Surveillance Assessment, one year after registration.

Till the time such laboratories get certified with EPA Punjab, these will be assessed by EPA PUNJAB assessors on the basis of the information provided in **Annexure III** of these Guidelines. Issues to be considered for such an assessment will include:

- a) Procedures for calibration of equipment and sampling
- b) Adequacy of equipment and facilities to cover all parameters in line with EIA requirements
- c) Competence of Technical Laboratory Staff
- d) Procedures for laboratory safety and pollution control related to laboratory emissions, discharges, and wastes

5.2 Field Investigation for Biotic Environment & Socio-economic data

As mentioned above, the EIA team must acquaint itself with the ground realities existing at the site through site visits with detailed programmes. Sampling locations, type of sampling, survey regime and protocol for ecological studies, questionnaire/interview/focused group discussions/ other methodologies to be followed for biotic and socioeconomic data, etc., must be specific to the site conditions. Section 6 below provides details to be included in the procedures.

6.0 Quality Management System

The applicant organization must maintain a Quality Management Systems (QMS) for the organization. The QMS should be based on ISO 9001:2008 standards. It, however, is not mandatory that the organization should be ISO 900:2008 certified. The QMS should address the requirements of ISO 900:2008 and the specific requirements of the Guidelines. The content of the Quality Manual should reflect the following:

- a) Quality Policy
- b) Control of records and documents
- c) Performance Measurement and Review
- d) Actions taken to address Non-Conformance

- e) Identification, retention and assessment of performance of empanelled experts
- f) Collection of primary data
- g) Collation, synthesis, and interpretation of secondary data
- h) Work outsourced
- i) Laboratory work, including calibration of equipment and lab safety
- j) Complaints and appeal

Items a) to d) and j) relate to ISO-9001: 2008 and items e) to i) address the requirements of these Guidelines. The essential issues to be addressed in the Quality Management System Manual are provided in **Appendix 2**.

7.0 Application Process

The application form can be downloaded from the EPA Punjab website **www.epa.punjab.gov.pk**. Detailed information on documents to be submitted with the application is also provided on the same website. Applicants are advised to go through the Registration Process carefully prior to preparing and submitting their applications.

7.1 Important points to be considered while applying

- a) Experts proposed must meet the requirements given in these Guidelines both in respect of qualification and experience (for ECs overall EIA related and sectoral experience; for FAEs overall in functional area/s and EIA related).
- b) An EC may be proposed for a maximum of 5 Sectors and a FAE for a maximum of 4 functional areas.
- c) An expert may be proposed both as an EC and FAE, provided s/he meets the Guideline's requirements.
- d) The application must have at least three in-house experts one eligible EIA Coordinator who together with another two eligible FAEs should cover the core functional areas (AP, WP, SHW, EB & SE).
- e) CVs of experts must be submitted in Formats given in Annexure IV, IV A and IV B. An incomplete CV will only delay the processing of the application.
- f) All 12 functional areas must be covered in the application. In-house experts must be proposed for the 5 core functional areas (AP, WP, SHW, SE and EB). Also see Section 2.2.1 of Appendix 3.
- g) It is not mandatory for a Consultant Organization to be certified to ISO 9001 but it should have a Quality Management System for guiding the activities of the organization. The Quality Management System should address the procedures mentioned in Appendix 2 of this Guideline. The

- application must be accompanied by the Quality Management System manual of the Organization.
- h) The Consultant Organization must have an arrangement with an EPA Punjab Certified Laboratory for environmental base line data generation. It can be an in-house or external laboratory. For the laboratories, the certificate of registration with EPA Punjab (vide Section 5.1 above) must be submitted.
- i) For external laboratory, copy of the agreement with it must be submitted with the application.
- j) Applicant having in-house laboratory not certified by EPA Punjab should provide details as per **Annexure III**.
- k) A check list of documents to be submitted with the application is given in **Annexure VI**.

7.2 Changes in Experts

A registered organization may change the experts on its panel under the following conditions:

- a) In response to Non-conformances/Observations (NCs/Obs) raised by EPA Punjab on the original application during Stage I and Stage II of Initial Assessment process (vide item 2.2.1 and 2.2.2 of Appendix 3).
- b) In case of non-availability expert/s due to a genuine and unavoidable reason (Registration Committee's decision with regard to the genuineness of the reason shall be final).
- c) Intimation of any such change must be submitted to EPA Punjab prior to the Office Assessment (vide item 2.2.3 of Appendix 3). The applicant organization may either redistribute sectors/functional areas within the experts proposed in the original application or add new names giving requisite details without adding any new sector.

8.0 Assessment Process

Experienced professionals with long experience in the relevant fields will carry out the assessment of the applications received by EPA Punjab. Each application is assigned two assessors (Principal Assessor - PA and Associate Assessor - AA) to carry out the assessment supported by the EPA Punjab staff. The assessment process will comprise:

8.1 Initial Assessment (IA) - will include three stages:

- a) Stage I checking the completeness of the application by the EPA Punjab.
- b) Stage II technical assessment of documents by the PA.

c) Stage III - office assessment including the interaction with experts by the PA and the AA.

Normally, 5 working-days prior notice will be given to the Applicant for Office Assessment. However, EPA Punjab reserves the right to visit the site un-announced, if it deems necessary.

The assessment process is primarily evidence based and objective in nature. After the Stage III assessment, an applicant organization will be given marks out of 100 as detailed in vide item 2.3 of Appendix 3. AOs scoring more than 40% marks in Stage III assessment are put up to the **Registration Committee** for its review and decision on registration.

8.2 Surveillance Assessments (SA)

Once an RO is registered (see Section 9 below) surveillance assessment will be carried out at the end of the 1st and the 2nd years after the registration. This process will also comprise three stages namely (i) checking by the EPA Punjab whether all documents asked for have been submitted followed by (ii) document assessment and (iii) office assessment by EPA Punjab assessors. For registration, an organization needs to score a minimum of 75% marks in Stage III of SA for the registration to continue; please refer to **Appendix 3** for details.

Any modification/extension of the scope of Registration will also be assessed during the Surveillance Assessment following the process the Documentation Review and Office Assessment, as applicable for the Initial Assessment Process.

8.3 Re-registration

At the end of three years after the Initial Registration, an applicant is required to re-apply stating the scope of re-registration desired. Re-registration shall follow the process of Initial Assessment mentioned above.

9.0 Registration Process

Registration under these Guideline will be done in two categories:

- a) Category A an RO needs to score minimum 60% marks in Stage III of the initial assessment to be considered for registration as a Category A consultant Such organizations will be able to carry out EIAs for both Category A and B projects as defined in Review of IEE/EIA Guidelines and its subsequent amendments.
- b) Category B ROs scoring 40% or more but less than 60% marks in the Stage III of initial assessment shall be considered for registration as Category B consultants. Such organizations will be permitted to carry out EIAs for Category B projects as defined in Review of IEE/EIA Guidelines and its subsequent amendments.

An applicant may be recommended for Category A for some sectors and Category B for some others, depending on the quality of experts, experience etc., as assessed by EPA Punjab Assessors. As mentioned above, a Consultant Organization accredited for Category A will be able to carry out EIAs for both, Category A and B projects for the sector/s specified.

Prior to registration, the AO shall sign the "Code of Conduct for EIA Consulting Organizations" (ref: 13.3 of this document) and send it to the EPA Punjab.

Registration will be accorded for a period of 3 years subject to surveillance assessments at the end of the 1st and the 2nd year. An accredited consultant is required to strictly comply with the conditions of registration. Non-compliance of conditions may result in withdrawal of the registration. For details of the Registration process please see Appendix 4

10.0 Closure of application

An application has to be complete in all respects for the assessment process to be completed. At each of the three stages of assessment, specific information must be available to process it for the next stage. The information may relate to the qualification & experience of experts, availability of minimum number of in house experts, Quality Management systems, laboratory arrangement, scope of registration of laboratories etc. During each stage of assessment the AO will be informed about the shortfall/inadequacy of information and given adequate time to submit complete information meeting the Guideline's requirements. It is to be noted that submission of incomplete or vague information would not help the cause of the application. If all information is not available even after 6 months of the expiry of the last time period given to it, it would be construed that the AO is not interested in pursuing the application and it will be treated as 'closed'. The AO would be informed accordingly. Should it so desire, the AO may reapply and rejoin the queue after ensuring that the inadequacies have been properly addressed. For details of conditions of Closure of applications, please see Appendix 5.

11.0 Fee Structure

To offset the costs involved in the implementation of the Registration Guideline for EIA Consultant Organizations by EPA Punjab, fees will be charged to the AO under the following heads -

11.1 Initial Assessment

- a) Application fee
- b) Document review fee
- c) Office assessment fee
- d) Analysis of office assessment and preparation of final report fee
- e) Travels, boarding and lodging (at actual)

f) Annual fee

11.2 Surveillance Assessment (at the end of the 1st year after the registration)

- a) Document review fee
- b) Office assessment fee
- c) Analysis of office assessment and preparation of final report fee
- d) Travel, boarding and lodging (at actual)
- e) Annual fee

11.3 Surveillance Assessment (at the end of the 2nd year after the registration)

- a) Document review fee
- b) Office assessment fee
- c) Analysis of office assessment and preparation of final report fee
- d) Travel, boarding and lodging (at actual)
- e) Annual fee

11.4 Re-application & reassessment

- a) Application fee
- b) Document review fee
- c) Office assessment fee
- d) Analysis of office assessment and preparation of final report fee
- e) Travels, boarding and lodging (at actual)
- f) Annual fee

Details of the Fee structure are given in Appendix 6.

11.5 Payment of Fees

- a) The fees have to be paid by a Demand Draft payable at Lahore in favor of "Director General, EPA Punjab."
- Only the Application fee has to be sent along with the application.
 Applications not accompanied by the application fee will not be processed further.
- c) The Annual fee for the first year has to be sent only after the receipt of confirmation from EPA Punjab of the applicant having been approved for registration. Certificate will be sent after receipt of full fees and expenses at EPA Punjab.
- d) Yearly renewal of registration will be given only on payment of all dues to EPA Punjab.

e) The fees are not refundable.

12.0 Organizational Commitment

The ultimate objective of the EIA registration Guideline is to contribute towards improving the quality of EIAs in the country. This will come about when there is a commitment from the accredited consultants towards continual improvement. One of the important aspects of the SA will be to assess such a commitment from the accredited consultants. Issues to be considered are-

- a) Efforts made by the consultant towards capacity building in the organization
- b) Efforts made for doing quality work
- c) Innovative approaches adopted

13.0 General

13.1 Facilities

The consultant organization shall have infrastructure like office space, equipment etc., commensurate with the scope stated in the application for registration.

13.2 Suspension or cancellation

EPA PUNJAB may suspend or cancel an registration on account of any or more grounds during registration process or after, but not limited, to the following:

- a) Non-compliance or violation of the EPA PUNJAB requirements and conditions of Registration and deviation from facts as stated in application and enclosures
- b) Submission of false or misleading information in the application or in subsequent submissions
- c) Improper use of EPA PUNJAB Registration mark
- d) Carrying out changes in EIA coordinators/ Experts for accredited sectors without EPA PUNJAB's approval
- e) Failure to report any major legal (mandatory compliance) changes
- f) Using fraudulent practices by the accredited consultant in respect of its submission/ interaction with EPA PUNJAB which would include, but not limited to, deliberate concealment and/or submission of false or misleading information, suppression of information, falsification of records or data, unauthorized of registration, and non-reporting of completed EIAs to EPA PUNJAB. The fraudulent practices covering the above aspects would also include the consultant organization's interaction with the project proponent and the EIA reports prepared by them.
- g) Non- payment of applicable fees.

- h) Violation of the Code of Conduct for the Consultant Firm (see section 13.3 below)
- i) Any other condition deemed appropriate by EPA Punjab

The decision for the suspension or the cancellation shall be taken by the EPA Punjab Consultants' Registration Committee.

13.3 Code of Conduct

All consultants are obliged to improve the standing of the consultancy profession by rigorously observing the Code of Conduct. Failure to do so may result in the suspension or cancellation of registration.

The Consultant Firm undertakes:

- a. To act professionally, accurately and in an unbiased manner.
- b. To be truthful, accurate and fair to the assigned work, without any fear or favor.
- c. To judiciously use the information provided by or acquired from the client in carrying out the EIA and to maintain the confidentiality of information received or acquired in connection with the assignment.
- d. To avoid and / or declare any conflict of interest that may affect the work to be carried out.
- e. Not to accept any favor from the clients, or their representatives.
- f. Not to act in a manner detrimental to the reputation of any of the stakeholders including EPA PUNJAB and the client.
- g. To co-operate fully in any formal enquiry procedure of EPA PUNJAB as per the appeals procedure.

13.4 Requests for Review of Decisions

The following procedure will be applicable

- a. In case an Applicant Organization/ Accredited Consultant wishes for review/reconsideration of any registration decision taken by EPA Punjab, they may send a request for same to EPA Punjab.
- b. Request received from Applicant organization/ Accredited consultants by EPA Punjab will be recorded in the same serial as date of receipt and put up on the EPA Punjab website
- c. Request must mention specific complaints (not generic in nature) and supported by documentary evidence.
- d. Anonymous/ pseudonymous requests will not be entertained.

- e. Each request must be accompanied with an Demand Draft of Rs. 25,000/ payable in favor of "Director General, EPA Punjab" to partially offset the cost of hearing of such requests.
- f. One special AC meeting is proposed to be organized every month to consider such cases.
- g. Agenda of such meetings along with cases to be put up shall be posted on EPA Punjab website.
- h. Organizations making the request may present their case in person to the AC, if so desired by them.
- i. Decision of the AC shall be intimated to the concerned organizations as well as posted on EPA Punjab website.

13.5 Records

All information concerning EIA related work should be meticulously documented, as defined in the organization's QMS to meet the requirements of these Guideline.

- a) The organization shall maintain records to demonstrate the conformance to the EPA Punjab requirements.
- b) Records shall be maintained in English.
- c) Records may be in any medium hard copy or soft copy.
- d) These records shall be maintained for at least three years.
- e) These records shall be made available to EPA Punjab on demand.

13.6 Confidentiality

- All information, documents and reports submitted by an applicant to EPA Punjab shall be utilized by the EPA Punjab, Assessors, Members of Registration & Technical Committee for the purpose of assessment & registration. These may also be used for research purpose. However, the identity of the registered EIA Consultant Organizations would be masked for sensitive information related to business whenever it is appropriate to do so. In case an applicant wants the information to be kept confidential, a communication must be sent to EPA Punjab citing reasons for the same. EPA Punjab reserves the right to take decision in this regard.
- b) The registered consultant shall have adequate arrangements consistent with governing laws to safeguard confidentiality of all information provided by its clients. These arrangements shall be extended to include organizations or individuals acting on its behalf and as its representatives.

13.7 Updating of Guidelines

EPA Punjab reserves the rights to amend its registration processes, procedures and fees, etc. as it may deem fit. Applicants are requested to refer to the updates on EPA Punjab website (www.epa.punjab.gov.pk) before applying for their registration.

QUALIFICATION AND EXPERIENCE OF EXPERTS

Keeping in view the roles envisaged for the EIA Coordinator and the Functional Area Experts in these regulations, the qualification and experience requirements of the experts are detailed below.

1.0 EIA Coordinators

1.1 Minimum Educational Qualification

a) Bachelor's (graduate) degree or equivalent in Engineering/ Architecture/ Environmental Planning/ Town Planning and the like from an HEC recognized University/ Institution.

or

b) Master's (post-graduate) degree in Physical! Environmental! Life Sciences/ Social Sciences/ Economics/ Management from an HEC recognized University/Institution.

In exceptional cases the Registration Committee may increase or decrease the minimum educational qualification for an EC based on the report and recommendation of assessors

1.2 Minimum Experience

An EIA Coordinator should have an overall knowledge of the concerned sector/s and a clear understanding of environmental, biotic, and socio-economic aspects related to those sectors. Minimum requirements of experience for an EIA Coordinator are given as under:

1.2.1 EIA related

Minimum 7 years work experience related to EIA in one or more of the following:

- a) as an EIA Coordinator
- b) as a Functional Area Expert assisting the EIA team
- c) as a team member supporting the EIA Coordinator
- d) in the role of appraisal of EIA reports as a regulator, appraiser, or an academician
- e) as a professional in an Environmental Protection or a concerned Department

EIA related experience during teaching and/or PhD work may be considered, if found relevant.

1.2.2 Sector specific (for each Sector applied for)

Anyone of the following:

- a) 3 completed EIAs* in the Sector
- b) 3 Environmental Assignments (monitoring, auditing, performance evaluation, etc.) in the Sector, which should involve spending a total of at least one month's time in an industry in the sector concerned.
- c) 3 in combination of (a) and (b).
- d) 2 years' experience in an industry in the Sector as an employee in their Environmental Management department.

For being eligible as EIA Coordinator for Category A projects (as defined in Review of IEE/EIA Regulation, 2016) in a Sector, the expert should have carried out at least one EIA for a project of Category A, in that Sector.

An EIA Coordinator should also be thoroughly aware of national and global environmental governance and be familiar with all relevant environmental protection rules, regulation, guidelines, and notifications and their amendments in the province.

2.0 Functional Area Experts

2.1 Minimum Educational Qualification (General)

a) Bachelor's (graduate) degree or equivalent in technical subjects such as Engineering/ Architecture/ Environmental Planning/ Town Planning and the like from an HEC recognized University/ Institution in specific disciplines as mentioned against each functional area in Section 2.3 below

or

b) Master's (post-graduate) degree in Physical/ Environment/ Life Sciences/ Social Sciences/ Economics from an HEC recognized University/ Institution in specific disciplines as mentioned against specific functional areas vide Section 2.3 below.

2.2 Minimum Experience (General)

Different EIAs will require inputs from diverse Functional Area Experts depending on the type and the size of the projects and the depth /extent of anticipated environmental impacts, e.g. Air quality, Water quality, Ecology & Biodiversity, Socioeconomy, etc. To help EIA Consultant organizations select Functional Area Experts, the following guidelines are recommended.

Category A FAEs for Category A projects will need to have a minimum experience of 5 years in the subject area, of which at least 3 years

^{* &#}x27;Completed' EIAs will mean those approved by the concerned regulatory agency or submitted to the regulatory agency for approval or those which have been put up for public consultation, if applicable (and public consultation is not complete for reasons not attributable to EIA consultants).

should be in the application of the knowledge in the functional area to EIA.

Category B to work as an independent Functional Area Expert, the expert should have a minimum 3 years of experience in the functional area. Out of these 3 years, at least 1 year should be in the application of the knowledge in the functional area/s to EIA, the remaining could be in consultancy/teaching and the like in the stated area/s of expertise.

Experts with a total of minimum 3 year's experience may work as independent FAEs for Category B projects (vide Section 9 of these Regulations).

Experience in the relevant functional area during teaching and/or Ph.D. work, if relevant, may be considered.

To encourage entry of fresh graduates and post graduates in the profession, persons having less than 3 years overall experience in certain functional area(s) may be considered as Associate Functional Area Experts in such areas provided they have reasonable knowledge in respective fields and score at least 60% marks during interaction with the Assessors. Such Associate FAEs may be permitted to work as FAEs for category B projects under the guidance of an approved FAE in the concerned functional area(s).

All Functional Area Experts should have in-depth knowledge and understanding of relevant Acts & Rules pertaining to their areas of expertise.

Qualification and specific experience requirements for different functional areas are given in Section 2.3 of this Appendix.

2.3 Minimum Educational Qualification and Experience for different Functional Areas

2.3.1 Land Use

a. Specific disciplines of Educational Qualification

- i. Technical subjects Civil Engineering / Physical Planning/ Architecture/ Town Planning/ Environmental Planning, Environmental Engineering, or
- Science subjects Remote Sensing or Geographic Information System, Environment Management, or
- iii. Other than those stated above, postgraduate degree in science subjects, including Geography or a Bachelor's degree in technical subjects followed by specialized training in GIS/ Remote Sensing/ Cartography (of not less than 2 months' duration) from an HEC recognized University/Institutions.

b. Specific experience should include:

- i. Generation and analysis of data related to land use pattern
- ii. Developing land use map of urban, semi-urban, rural and mixed areas using GIS
- iii. GIS based land use analysis and development
- iv. Integration of land use related data and information for assessing environmental impacts of developmental projects
- v. Adequate knowledge of EIA Legislation processes in the country
- vi. Contribution to EIA documentation
- vii. Understanding of policies, guidelines and the legislation related to Land Use

c. Training (Preferable)

Specialized training in site description, preparation of land use map, cartography, and Spatial Planning (GIS and other computer application, Remote sensing, etc.)

2.3.2 Air Pollution Monitoring. Prevention & Control

a. Specific Disciplines

- i. Engineering Environmental/ Chemical/ Mechanical/ Civil/ Mining. or
- Science subjects Environmental Sciences/ Environment Management/Environmental Studies/ Industrial Pollution Control/ Physics / Chemistry.

b. Specific Experience should include

I. Air Pollution Monitoring

- i. Meteorology measurement of wind speed, wind direction, relative humidity, wet & dry bulb temperature, rainfall, etc.
- ii. Air quality monitoring, Suspended Particulate Matter, Respirable Particulate Matter PM2.5 and PM10, S0x, NOx, CO, hydrocarbons, & other relevant parameters like VOCs, etc. including handling of relevant equipment.
- iii. Stack monitoring Particulate Matter, S0x, NOx, & other relevant parameters
- iv. Calculation of carbon footprints
- v. Inventorization of Green House Gas emissions

II. Air Pollution Prevention & Control

- i. Reduction in process emissions at source
- ii. Reduction in fugitive emissions
- iii. Design and installation of emission control systems involving

- Identifying & assessing quantum of emissions
- Identifying the most suitable control device, e.g. condensers, spray systems, scrubbers, cyclones, ESPs, bag filters, etc.
- Design of air pollution control systems and their efficiencies
- Interlocking control systems with production plants
- iv. Adequate knowledge of EIA Legislation process in the country
- v. Contribution to EIA documentation
- vi. Understanding of policies, guidelines and the legislation related to Air Pollution
- vii. Knowledge of International Treaties related to emissions and preparing cost estimates for control systems.

c. Training (Preferable)

Specialized course/ training in air pollution measurement, prevention, monitoring, air pollution or control equipment.

2.3.3 Meteorology, Air Quality Modeling & Prediction

a. Specific Disciplines

- i. Engineering Environmental/ Civil/ Chemical, or
- Science subjects Environmental Sciences/ Environment Management/ Environmental Studies/ Industrial Pollution Control/ Physics/ Chemistry/ Mathematics/ Statistics/ Atmospheric Sciences.

b. Specific experience should include

- i. Designing ambient air quality monitoring network for use in prediction (dispersion and receptor) modeling
- ii. Developing micro meteorological data for use in modeling
- iii. Collecting and use of secondary data on meteorology like cloud cover, inversion related data, mixing heights, etc., for modeling
- iv. Application of relevant air quality models in prediction of dispersion of pollutants, plotting of isopleths of GLCs representing incremental pollution levels, worst case scenarios on suitable maps showing both the sources of pollution as well as environmentally sensitive receptors.

The models used should be able to address source to receptor scenarios for point sources, area sources and line sources. The models should also conform to the requirements of EPA Punjab.

It is also expected that the expert has the following knowledge/experience:

- i. Adequate knowledge of EIA Legislation processes in the country
- ii. Contribution to EIA documentation

iii. Understanding of international, national, and provincial policies, guidelines and the legislation related to Air Pollution

c. Training (Preferable)

Specialized course/training on air quality modeling, air pollution meteorology, atmospheric sciences and impact prediction.

2.3.4 Water Pollution Monitoring, Prevention & Control

a. Specific Disciplines

- i. Engineering Environmental/ Chemical/ Civil/ Mechanical, or
- Science Subjects Public Health/ Environmental Sciences/ Environment Management/ Environmental Studies/ Natural Resource Management/ Industrial Pollution Control/ Chemistry/ Biochemistry/ Biotechnology/ Toxicology/ Microbiology/ Hydrology/ Geo-hydrology.

b. Specific experience should include

I. Water & Waste water Monitoring

- i. Designing networks for water and wastewater
- ii. Techniques and requirements of sampling of water and wastewater for EIAs
- iii. Monitoring of water and wastewater quality

II. Water conservation and prevention & control of pollution

- i. Water use auditing, water balance, water budgeting, water conservation, and developing schemes for cascading use (recycle, reuse) of water
- ii. Identification, characterization and segregation of effluent streams
- iii. Design/ Erection/ Performance evaluation of water/ effluent treatment systems for physical, chemical and biological treatment.
- iv. Water quality modeling for prediction of impacts of effluent discharge to receiving water bodies
- vi. Adequate knowledge of EIA Legislation process in the country
- vii. Contribution to EIA documentation
- viii. Understanding of policies, guidelines and legislations related to Water Pollution

c. Training (Preferable)

Specialized course/ training on water pollution & control technologies.

2.3.5 Ecology and Biodiversity

a. Specific Disciplines

 Science subjects - Zoology/ Botany/ Forestry/ Environmental Sciences/ Ecology/ Natural Resource Management/ Subjects of Life Sciences and the like.

b. Specific experience/ Skills should include

- i. Knowledge of the application of taxonomy in resource inventory (flora and fauna) of the project area
- ii. Conducting ecological/ wildlife surveys and preparation of status reports for endangered species of animals and plants
- iii. Experience in providing guidance and support for conservation of species and habitats
- iv. Adequate knowledge of EIA Legislation process in the country
- v. Understanding of international, national, and provincial policies, guidelines and legislations related to ecology biodiversity conservation
- vi. Specialized training in the field of impact assessment and ecological monitoring will be an added advantage
- vii. Contribution to EIA documentation

c. Training (Preferable)

Training on Ecosystem analysis and evaluation, Landscape ecology, Impact Assessment on ecology/ biodiversity

2.3.6 Noise and Vibration

a. Specific Disciplines

- i. Engineering Mining/ Mechanical/ Electrical/ Instrumentation/ Civil/ Environmental
- ii. Science subjects Environmental Sciences/ Environment Management/ Environmental Studies/ Physics/ Geophysics/ Statistics or in any other subject covering noise/ vibration measurement, prediction & control

b. Specific experience should include

- i. Monitoring of noise/vibration levels using specific instruments, processing and analysis of data
- ii. Prediction of noise/vibration isopleths levels using relevant models in residential, sensitive (hospitals, educational institutions, etc.), commercial and industrial areas and noise due to community activities, urban traffic, highway traffic, railroads, aviation, commercial, and industrial activities.
- iii. Control of noise emanating from mining operations, vehicles, airport, industries, machines, community activities, highways, railways, etc. along with design and optimization of noise/vibration attenuation devices.

It is also expected that the expert has the following knowledge/experience:

- i. Adequate knowledge of EIA Legislation process in the country
- ii. Contribution to EIA documentation
- iii. Understanding of policies, guidelines and the legislation related to Noise Pollution

c. Training (Preferable)

Noise Specialized training on measurement of noise levels, impacts on human health and behavior, noise modeling and prediction, protection devices against high noise levels, designing/review of noise reduction/control systems.

Vibration Measurement, analysis and prediction of vibrations from mining operations, vibration studies in industrial operations, protection measures etc.

2.3.7 Socio-Economics

a. Specific Disciplines

Master's (post graduate) degree in

- Social Welfare/ Sociology/ Political Science/ Psychology/ Geography/ Anthropology/ Economics, or
- ii. Rural Development & Management/ Rural Economics/ Economic Sociology/ Demographic Studies/ any Sociology related subject

b. Specific experience should include

- i. Conducting base line socio-economic surveys through interviews/questionnaire/ focused group discussions
- ii. Carrying out social need assessment studies
- iii. Carrying out rehabilitation Resettlement & Rehabilitation studies for people displaced due to developmental projects
- iv. Assessment of social changes arising out of development projects
- v. Evaluation of socio-economic status of project affected people and areas
- vi. Demonstrated capacity to interact and develop rapport at community level will be an added advantage

It is also expected that the expert has the following knowledge/experience:

- i. Adequate knowledge of EIA Legislation process in the country.
- ii. Contribution to EIA documentation.
- iii. Understanding of policies, guidelines and the legislation related to Socioeconomy in the country.

c. Training (Preferable)

Training on Social Impact Assessment of development projects in Rural/ Urban areas.

2.3.8 Hydrology, Ground Water & Water Conservation

a. Specific Disciplines

- i. Engineering Civil, or
- Science subjects Geology/ Applied Geology/ Geophysics/ Hydrology/ Surface Hydrology/ Hydrogeology/ Water resources Management

c. Specific experience should include

- i. Analysis of surface hydrological data pertaining to flow fluctuation, estimation of flows at 10, 50 and 90 percentile levels; setting up and interpretation of gauging station readings, designing of ground water table measurement and monitoring network, computation of ground water recharge, flow rate and direction.
- ii. Plotting of groundwater contours.
- iii. Analysis and description of aquifer characteristics, e.g. permeability, transmissivity, storage coefficient, etc., estimation of groundwater potential and recharge phenomenon, determination of impact of withdrawal of groundwater.
- iv. Preparation of water budget for an area.

It is also expected that the expert has the following knowledge/experience:

- i. Adequate knowledge of EIA Legislation process in the country.
- ii. Contribution to EIA documentation.
- iii. Understanding of policies, guidelines and the legislation related to Ground Water.

d. Training (Preferable)

Specialized training/ course on impacts on hydrology & groundwater.

2.3.9 Geology

a. Specific Disciplines

- i. Engineering Mining
- ii. Science subjects Geology/ Applied Geology/ Geophysics

b. Specific experience should include

- i. Geology and Geomorphological analysis/ description.
- ii. Stratigraphy/ Lithology.
- iii. Vibration analysis in relation to mining operations.

- iv. Preparing geological maps.
- v. Mining plan development incorporating environmental aspects like top soil preservation, waste dump management, reclamation/ rehabilitation of mined out areas' run off management, etc.
- vi. Environmental impacts of 3 phases of mining exploration, exploitation and post mining stages.

It is also expected that the expert has the following knowledge/experience:

- i. Adequate knowledge of EIA Legislation process in the country
- ii. Contribution to EIA documentation
- iii. Understanding of policies, guidelines and the legislation related to Mining.

2.3.10 Soil Conservation

a. Specific Disciplines

Science subjects - Agricultural Sciences/ Soil Sciences/ Forestry/Chemistry/ Botany/ Natural Resource Management.

b. Specific Experience should include

- i. Sampling, analysis and characterization of soil
- ii. Assessment of fertility/productivity of soil
- iii. Assessment of impact of gaseous, liquid & solid pollutants on soil
- iv. Management of soil salinity
- v. Remediation of soil pollution/contaminated soils

It is also expected that the expert has the following knowledge/experience:

- i. Adequate knowledge of EIA Legislation process in the country
- ii. Contribution to EIA documentation
- iii. Understanding of policies, guidelines and the legislation related to the subject area

c. Training (Preferable)

Assessment of soil contamination and remediation techniques

2.3.11 Risk Assessment & Hazard Management

a. Specific Disciplines

- Engineering Chemical/ Mechanical/Fire Engineering/ (Mining For Mining EIAs only)
- Science subjects Toxicology/ Chemical Technology/ Industrial Safety/ Chemistry or in subjects dealing with identification, assessment and management of risk and hazards

iii. Others - Post graduate diploma (1 year or above) in Industrial Safety from an HEC University/ recognized Institute after graduation in engineering or post graduation in a science subject

b. Specific experience should include

- i. Identification of Hazards & Hazardous Substances
- ii. Risks and Consequences Analysis using latest software
- iii. Preparation of Impact Diagrams
- iv. Vulnerability Assessment
- v. Preparation of Onsite Emergency Preparedness Plan
- vi. Preparation of Offsite Disaster Management Plan

It is also expected that the expert has the following knowledge/experience:

- i. Adequate knowledge of EIA Legislation process in the country
- ii. Contribution to EIA documentation
- iii. Understanding of policies, guidelines and the legislation related to emergency response, off-site and on-site emergency plans, safety and occupational health, etc.

2.3.12 Solid & Hazardous Waste Management

a. Specific Disciplines

- i. Engineering Chemical/ Civil/ Environmental/ (Mining For Mining EIAs only)
- ii. Science subjects Chemical Technology/ Chemistry/ Toxicology/ Environmental Sciences/ Natural Resource Management/ Natural Science

b. This Functional Area comprises three parts

- i. Municipal Solid wastes
- ii Non hazardous industrial solid wastes
- iii. Hazardous wastes including Biomedical Waste (MSW) (ISW) (HW)

c. Specific Experience/ Skills should include

- i. For Municipal Solid wastes
 - a) Methodologies for segregation and collection of MSW
 - b) Methodologies of gainful utilization of MSW
 - c) Designing of landfill sites for safe disposal of MSW
 - d) Familiarity with MSW Rules
- ii. For Non-hazardous industrial solid wastes
 - a) Recycling and reuse of solid wastes
 - b) Handling and disposal methodologies of high volume nonhazardous solid wastes

iii. For Hazardous wastes

- a) Knowledge of Hazardous Wastes (Management, handling and trans-boundary movement) Rules, Basal Convention and other relevant legislations
- b) Identification of Hazardous wastes
- c) Neutralization, stabilization, treatment, storage and disposal of Hazardous wastes
- d) Designing of Hazardous Waste Treatment, Storage, and Disposal, Facilities (TSDF)

It is also expected that the expert has the following knowledge/experience:

- i. Adequate knowledge of EIA Legislation process in the country
- ii. Contribution to EIA documentation
- iii. Understanding of policies, guidelines and the legislation related to Municipal and Industrial Solid and Hazardous Waste Management

Experts having experience on all the three above will be considered for FAE - SHW (Solid & Hazardous wastes). Those having experience in a specific area out of above, will be considered for the respective field, e.g.: FAE (HW), FAE (MSW), etc.

d. Training (Preferable)

Training on identification, inventorization, collection, handling, storage, treatment and disposal of Hazardous wastes/ Solid wastes/ Municipal Solid wastes

General Note:

Training should be relevant to the sector/s for ECs and area/s of expertise for FAEs. The duration of the training should be a minimum of 3 days and conducted/organized by HEC recognized Universities, Research Institutes, Professional Bodies, or other recognized organizations.

QUALITY MANAGEMENT SYSTEM

The applicant organization must maintain a Quality Management Systems (QMS) for the organization. The QMS should be based on the latest ISO standards. It is, however, not mandatory that the organization should be ISO certified. The QMS should address the requirements of ISO and also the specific requirements of these Regulations.

The Quality Manual should, at the minimum, reflect the following:

- i. Quality Policy
- ii. Control of Records & Documents
- iii. Performance Measurement and Review
- iv. Actions taken to address Non-Conformance
- v. Identification, retention and assessment of performance of empanelled experts
- vi. Collection of primary data
- vii. Complaints and appeal
- viii. Collation, synthesis and interpretation of secondary data
- ix. Work outsourced
- x. Laboratory work including calibration of equipment and lab safety

Items i to v relate to general quality standards. Items vi to x address the requirements of these Regulations. Some broad guidelines on issues to be addressed for each of the above items are given below:

- i. Quality policy should clearly define:
 - a. Appropriate to Firm's business
 - b. Commitment for continual improvement
 - c. Framework for a review mechanism
 - d. Methodology of communication
 - e. Focus on customer satisfaction
- ii. Control of records and documents should give procedures for:
 - a. Approving documents prior to issue
 - b. Updating of documents, as required
 - c. Ensuring quick availability of relevant revision of the document
 - d. Storage, protection and retrieval of documents
 - e. Disposal of outdated/superseded documents
- iii. Performance Measurement and Review should give procedures for:
 - a. Specifying Key Result Areas (KRAs) of experts involved in EIA

- b. Cross checking the accuracy of primary data generated
- c. Internal Audit defining the areas to be covered
- d. Management Review giving periodicity and issues to be taken up including feedback from project proponent/ public hearing/ EPA
 Punjab on quality of EIA reports prepared
- e. Follow-up actions on Internal Audit and Management Review
- iv. Actions taken to address Non-Conformances (NCs) should give procedures for:
 - a. Analyzing the NCs to identify the preventive or corrective actions to be taken
 - b. Identifying resources and other inputs required for such actions
 - c. Fixing the time frame and the responsibility for the actions
 - d. Ensuring the completion of the actions to be taken
 - e. Ensuring amendments to the procedure for the prevention of the recurrence of such NCs
- v. Identification, retention and assessment of performance of empanelled experts should give procedures for:
 - a. Specifying qualifications and experience requirements of the experts
 - b. Assessing the work done by the prospective experts prior to their retention
 - c. Framing "terms of reference" for retention of the expert
 - d. Assessing performance of the expert's work done for the organization
 - e. Ensuring updating of the knowledge level of the expert (A suitable procedure should also be included for updating the knowledge level of in-house experts)
- vi. Collection/measurement of primary data

'Primary' data comprises all forms of data collected through field work, including physical environment, biotic environment and socio-economic data. This item addresses due diligence to be adopted by the AO in the visit to the site by the EIA team to properly acquaint themselves with the ground realities, decide on sampling locations, type of sampling, survey regime and the protocol for ecological studies, questionnaire/ interview/ focused group discussions/ other methodologies to be followed for biotic and socio-economic data. To give procedures for:

- a. Selecting number and location of monitoring stations, type of sampling and parameters to be monitored
- b. Assessing availability of relevant laboratory instrument/ equipment, competence of laboratory staff for baseline environmental data generation
- c. Quality assurance for baseline environmental data generation by EPA Punjab certified laboratories
- d. Specifying the type of socio-economic and biotic environment data to be collected suiting the EIA requirements and methodologies to be followed
- e. Laying down steps to be taken to ensure collection of quality primary data
- vii. Collation, synthesis and interpretation of secondary data

Authenticity, credibility, appropriateness and relevance of the secondary data are the bases of a good EIA. Minimum secondary data shall be used to supplement the primary data and under no circumstances this shall substitute primary data. To give procedures for:

- a. When secondary data would be resorted to
- b. Identifying the relevant secondary data to be collected suiting the EIA's requirements
- c. Identification of sources of secondary data ensuring their reliability and age
- d. Validating important secondary data by cross verification at the site or from other sources
- e. Ensuring the brevity of the data (eliminating irrelevant information)
- viii. Sometimes it may be necessary to outsource some specific studies for an EIA like a biodiversity study or a socio-economic study or an R & R study. The manual for outsourcing of work should give procedures for:
 - a. Defining conditions when outsourcing would be resorted to
 - b. Assessing the capability of the organization to take up the work to be outsourced
 - c. Drawing up the terms of reference for the outsourced work
 - d. Identifying steps to be taken to ensure the quality of the outsourced work
 - e. Extracting the relevant portions of the outsourced work for inclusion in the EIA report

- ix. Laboratory work including calibration of equipment and lab safety should give procedures for:
 - a. Upkeep and maintenance of the laboratory instruments/ equipment
 - b. Calibration of the laboratory instrument/ equipment including the periodicity and the methodology for calibration by in-house laboratory expert and/or by external agency
 - c. Ensuring the laboratory safety, developing the emergency plan and imparting the relevant training
 - d. Assessing the capability of external laboratory, if applicable
 - e. Quality assurance of the data generated from both in-house and outside laboratories
- x. Complaints and Appeals (applicable to consultant organization) should give procedures for:
 - a. Informing the clients about the provision of complaints and appeals
 - b. Accepting complaints/appeal
 - c. Handling and disposal (including authority and responsibility) of the same within reasonable time
 - d. Maintaining records of complaints/appeals
 - e. Ensuring implementation of preventive/corrective actions

ASSESSMENT PROCESS

1.0 Assessment Process

Assessment process shall comprise two stages:

a. Stage I **Initial Assessment** is carried out in three stages according to details given below. On successful completion of the Initial Assessment, an applicant organization is registered

for 3 years, subject to yearly surveillance assessment.

b. Stage II **Surveillance Assessment** is carried out in three stages according to the details given below at the end of 1st and 2nd year of registration to assess compliance to the conditions of registration.

At the end of the 3rd year, the firm will be re-assessed as per the process followed for Initial Assessment

The completeness of applications/ documents, both for Stage I & Stage II are checked by EPA Punjab. The Technical Review of the documents is carried out by the Principal Assessor (PA). For Office Assessment at the premises of the applicant, the PA is joined by the Associate Assessor (AA).

2.0 Initial Assessment

2.1 Issues to be considered

2.1.1. Quality of Experts

a. **EIA Coordinators** This will include assessment of the domain knowledge of

the EC in the sectors applied for, clarity on the concept of EIA/EMP, the knowledge of the relevant legislation and the approach towards coordinating an EIA team to achieve the

best results

b. **FAEs** This will include the assessment of the subject knowledge

for the functional area applied for, the ability to correlate environmental aspects in his/her functional area(s) with EIAs and the ability to vet/suggest mitigation measures.

2.1.2 Field Investigation & Laboratory Work

a. **Field investigation** Due diligence observed by the AO in ensuring thoroughness

in the field investigation work and the integrity in the laboratory data, will be assessed in this section. This will include a visit to the site by the EC and the FAEs and their involvement in finalizing the sampling network, the type of

samples and the collection of samples. This will cover the field work for physical, biotic and social environment at the site.

b. Laboratory work

The laboratories being used shall be EPA Punjab Certified. The scope of laboratory certification must cover at least the basic requirements of EIAs namely ambient air quality, stack emissions, water & waste water quality, soil characteristics and noise monitoring. Documentary evidence of such scope shall be checked.

2.1.3 Development of and Compliance to Quality Manual

This will include the assessment of whether all the requirements of Appendix 2 above have been covered by documented procedures, the quality of the content of the procedures developed, the status of implementation of the system in the firm including organizational awareness and knowledge about the quality management system.

2.1.4 Completeness of EIAs

This will include studying EIAs prepared by the consultant to assess the adequacy of site description, completeness and authenticity of baseline data, addressing the concerns raised during public consultation, completeness of impact assessment and mitigation plans and compliance to TOR of preparation of the EIA.

2.1.5 Organizational Evaluation

Issues to be considered will include efforts made by the consultant towards capacity building in the firm, efforts made for doing quality work and innovative approach adopted and office facilities provided like space allotted for work stations, work environment in the office, facilities of meeting, discussion room, documentation center and library, availability of relevant office equipment, etc.

2.2 Stages of Initial Assessment

2.2.1 Stage I Assessment: Checking Completeness of Application

Applications must be complete in all respects including the supporting documents as mentioned in the checklist in Annexure VI of these Regulations. EPA Punjab will check if (a) the application is complete in all respects, (b) the information submitted is in requisite formats, and (c) the application is accompanied by the requisite fee.

The following must necessarily be available in the application for EPA Punjab to proceed further:

- a. In-house FAEs meeting the qualification & experience requirements for AP, WP, SHW, etc.
- b. Preferably in-house or empanelled FAEs for EB and SE. In case these are empanel led experts, the applicant firm must have in place in-house

- experts for these functional areas prior to the first Surveillance Assessment.
- c. Declarations in requisite formats for empanelled experts as mentioned in Annexure V.
- d. In addition to the CV, experience details of EIA Coordinators and FAEs in formats mentioned in Annexure IV A & IV B of these Regulations, respectively.

2.2.2 Stage II - Technical Review of Documents by NABET Assessor

Once the application is checked for its completeness by EPA Punjab, the technical contents of the documents are assessed by the Principal Assessor for their conformity with the Regulations. After the evaluation, EPA Punjab will inform the applicant firm of the non-conformances (NC) and/or observations, if any, in a specific format.

The applicant firm shall be required to provide appropriate response to all observations and non-conformances (NC) particularly on the availability of experts meeting the Regulation's requirements for the core functional areas of AP, WP, SHW, EB & SE before the next stage of assessment. The other important requirement for processing the application for the next Stage of assessment is the availability of an inhouse EIA Coordinator meeting the requirements of these Regulations. The closure actions submitted by the Consultant shall be assessed for completeness by the Assessor.

An assessment fee will be charged for the documentation review as given in Appendix 6.

In the case verification/assessment of the closure action proposed needs assessment of more than two proposed FAEs or one proposed EC, the additional fee charged will be in line with the fee proposed in Appendix 6 for initial assessment.

2.2.3 Stage III - Office Assessment including Interaction with Experts

After successful closure of NCs and observations as mentioned above by the applicant firm, EPA Punjab shall undertake at least one full office assessment including interactions with the experts, verification of compliance to systems and procedures submitted with the application, laboratory and office/support structure and the reports prepared by the organization, by a team of two Assessors.

The office assessment shall cover interactions with all EIA coordinators and Functional Area Experts proposed and found meeting the requirements of these Regulations, during Stage II of the assessment. Experts to be interacted with will include both full time employees and empanelled experts. EPA Punjab will inform the AO, at least 5 working days in advance, the date of the Office Assessment. If any of the EC(s) and/or FAE(s) proposed is not available during the interaction process, the sectors and functional areas proposed for her/him respectively shall not be considered for registration. Markings shall be done out of 100 as mentioned below, based on the Stage

III of the assessment. During interaction with experts, relevant documentary evidences of educational qualifications and experience shall be obtained by the assessors.

In case the applicant firm has multiple offices, a partial assessment of few selected offices may be conducted by EPA Punjab. The choice of locations shall be at the discretion of EPA Punjab assessment team. Also, the EPA Punjab Assessor(s), if they so, decide may inspect an external laboratory or an on-going baseline data generation work.

During Office Assessment, documentary evidences shall be provided by the applicant firm in original. Also, certain clarifications/ additional information may be sought by the Assessors from the applicant firm. All such documents in soft & hard formats must be submitted to EPA Punjab by the applicant within one week of the Stage III Assessment.

On receipt of all such clarifications/ additional information, the final findings of the assessment are sent to EPA Punjab by the Assessors. EPA Punjab after checking the availability of all backup documents puts up the cases to the Registration Committee (RC) for its review and decision. The recommendations of the RC are posted on EPA Punjab website. For full registration, the AF must have approved FAEs for all the functional areas. The minimum requirement for an organization to be considered for provisional accreditation will be to have at least one in-house EIA Coordinator together with minimum three functional areas approved. For balance functional areas, the applicant will be given three months' time to propose new experts meeting the requirements of these Regulations and get them approved within three months. Such experts could be both, in-house or empanelled, as required by these Regulations. EPA Punjab also informs the applicant firm separately about the decision of the AC and other formalities required to be completed by the Applicant (like payments of requisite fees, etc.) prior to issuing the Registration Certificate.

2.3 Assessment Criteria

The assessment shall be on the basis of 100 marks to be provided at Stage III as mentioned below:

No	Item	
1	Quality of personnel based on interview	
	i. EIA Coordinator(s)	20
	ii. Functional Area Expert(s)	20
2	Development of and Conformance to Quality Manual	15
3	Field investigation and laboratory work	20
4	Completeness of EIA prepared by the applicant firm	10
5	Organizational Evaluation (including office facilities)	15
	Total	100

For being recommended for Category A, an applicant firm must score minimum 60% marks. Applicant firm scoring more than 40% but less than 60% will be recommended for registration in Category B. The applicants scoring less than 40% marks in I and II above will not be considered for registration.

3.0 Surveillance Assessment

Surveillance assessments shall be carried out at the end of the 1st and the 2nd year after registration.

3.1 Issues to be Considered for Surveillance Assessment

These assessments are primarily aimed at assessing compliance to the conditions of registration, systems and procedures proposed by the firm during initial assessment, integrity of field investigation and laboratory analysis and data, incorporation of concerns expressed during public consultation, quality of EIAs developed during the year, performance of approved experts and organizational commitment towards developing quality EIAs. The aspects to be covered are further elucidated in the following subsections.

3.1.1 Compliance with conditions of registration

This will include changes made in respect of the applicant firm, administrative procedures, quality manual, etc., changes in the list of approved experts, and the maintenance of all records as per the requirements of these Regulations, etc.

3.1.2 Field investigation and laboratory analysis

This will comprise implementation of systems and procedures to ensure data integrity and include assessment of involvement of experts in the field-work, sampling protocols followed, quality assurance and documentation of laboratory work, scope of coverage if the laboratory is EPA Punjab certified.

3.1.3 Systems & Procedures

This will include compliance to various procedures mentioned in the Quality Manual of the Consultant addressing the general quality management system elements as well as specific requirements of EPA Punjab as mentioned in Appendix 2 of these Regulations.

3.1.4 Content & Quality of EIAs

This will include assessment of two EIAs completed during the year by the applicant firm for essential elements like the comprehensiveness of site description, completeness and authenticity of baseline data, impact assessment including social and ecological aspects, environmental management plan, etc. Comments made during the presentation of the EIAs to EPA Punjab would also be taken into consideration while assessing the quality of EIAs prepared by the firm.

3.1.5 Public Consultation

This will include the assessment of completeness of executive summary of EIA(s), concerns raised during the public consultation and incorporation of the time bound action plan to address the same giving necessary details.

3.1.6 Performance of approved experts

This will include assessing the familiarity of the experts with the site conditions, completeness of TOR formulated, inclusion of relevant and complete baseline information, completeness of EMP including provision for budget, manpower, etc., and timely completion of the EIA project.

3.1.7 Organizational Evaluation

This will include assessing the commitment of the firm towards preparation of quality EIAs, capacity building of the EIA team and innovative approach adopted during the year.

3.2 Stages of Surveillance Assessment

3.2.1 Stage I: Completeness of Documents

The registered firms will be advised by EPA Punjab to submit relevant documents which would include a list of EIAs carried out during the year, list of experts involved in the EIAs, copy of the Quality Management System manual, details about laboratory arrangements, copies of the minutes of public consultation, etc. A checklist of the documents to be submitted is given at Annexure VI A.

Completeness of the documents received will be checked by EPA Punjab.

3.2.2 Stage II: Technical review of documents by NABET Assessor

After satisfying that necessary documents have been received, EPA Punjab will forward the documents to the Principal Assessor for a technical review of the same. Non conformances (NCs) and Observations (Obs), if any, shall be raised by the PA in a specific format. The firm is required to close all NCs and Obs. to the satisfaction of the PA for further processing of the case.

3.2.3 Stage III: Office Assessment including interaction with experts

The Principal Assessor along with an Associate Assessor shall carry out this Stage of assessment which will include checking of documentary evidences, visit to the laboratory, interaction with the CEO and experts involved in preparation of EIAs including laboratory and field personnel. EPA Punjab will normally give at least 5 working days' notice for conducting Stage III assessment and consultants are expected to co-operate.

3.3 Assessment Criteria

The assessment shall be on the basis of 100 marks to be provided at Stage III as mentioned below:

No.	Item	Marks
1	Compliance with conditions of registration	10
2	Field investigation and laboratory analysis: implementation of systems and procedures to ensure data integrity	15
3	Quality assurance: organizational systems & procedures to meet these Regulations' requirements	20
4	Content & quality of EIA(s)	20
5	Public consultation and due diligence on the outcome giving action plan	10
6	Performance of approved experts	10
7	Organizational evaluation	15
	Total	100

NOTE:

- 1. A consultant firm must score minimum of 50% in each of the above 7 items (1 to 7)
- 2. If a firm scores less than 40%, the registration will be withdrawn.
- 3. If the score is between 40% and 50%, an alert letter would be issued to the firm to improve its performance in the concerned area(s) before the next assessment. If the score still remains less than 50% in the second assessment, the registration will be withdrawn.
- 4. The approved experts will be assessed during interaction with EPA Punjab Assessors on the basis of criteria mentioned at Section 3.1.6 above and given scores out of 10 marks as mentioned at Sr. No. 6 of the table. The above criteria of withdrawal of approval and issuance of alert letter would also be applicable to individual experts (ECs and FAEs).

In the assessment carried out at the end of 2nd year, a firm is expected to improve its score to 60% or better.

3.4 Miscellaneous

- a. In case a registered firm requests modification/extension of scope, assessment of new experts, change of laboratory arrangement, etc., the same shall be submitted to EPA Punjab with all necessary documents at-least one month in advance before the due date of Assessment. Such assessment will follow the initial assessment process and will be carried out along with the Assessment.
- b. Requisite fees will be applicable for Assessment as detailed in Section 5.

c. EPA Punjab reserves the right to carry out more frequent or longer surveillance as necessary in case of complaints/concerns against a firm. Cost for the same shall be borne by the consultant firm. EPA Punjab may also conduct surprise surveillance, if deemed necessary.

4.0 Re-registration

EPA Punjab shall carry out re-registration of Consultant Firms after every 3 years. The scope of such an assessment will be same as that for the Initial Assessment including document review, interaction with experts, adequacy of facilities, office procedures and documentation to verify the compliance with these Regulations. Fees applicable will be the same as that for the Initial Assessment.

The firm shall apply in the requisite application form for reassessment enclosing necessary papers and application fee.

REGISTRATION PROCESS

On completion of Stage III of assessment process, the case of an AF is recommended jointly by the PA and AA to EPA Punjab provided it meets the requirements mentioned below. EPA Punjab goes through the completeness of all documents and then puts up the cases to the Registration Committee for its consideration. The minutes of the RC meeting will be posted in EPA Punjab website. AF will also be separately informed by EPA Punjab.

Registration under these Regulations will be done in two categories:

1.0 Category A

These EIA Consultant Firm will be entitled to carry out EIAs for all Category A as well as Category B projects as defined in the Punjab Review of IEE/EIA Regulations, 2016 and its subsequent amendments. The firm will have to meet each of the following requirements, (apart from those mentioned elsewhere in these Regulations, e.g. qualification and experience of EIA Coordinator(s) and FAE(s) for the Sectors applied for, etc.)

- i. One EIA Coordinator for a maximum 5 sectors
- ii. One FAE representing a maximum for 4 areas of expertise
- iii. At least one EIA Coordinator as a full-time employee
- iv. At least 2 FAEs as full-time employees (see section 4.3 of these Regulations)
- v. The AF shall be considered for accreditation for only those sectors for which EIA Coordinator(s) fulfils the requirements of qualification & experience and also clears Stage III Assessment (e.g., if an EIA Consultant Firm has applied for 15 sectors showing 3 EIA Coordinators and while two of them meet all requirements for all Sectors and one meets the requirements of two sectors, then the organization shall be considered for 10 + 2, i.e., 12 sectors only)
- vi. The Applicant Firm should have scored 60% or above in the Stage III Assessment process.

An AF may be recommended for Category A for some sectors and Category B for some others, depending on the quality of experts, experience etc., as assessed by EPA Punjab Assessors. A Consultant Firm accredited for Category A will be able to carry out EIAs for both, Category A and B projects for the sector(s) specified.

2.0 Category B

The AF will have to meet each of the following requirements:

i. One EIA Coordinator for a maximum 5 sectors

- ii. One FAE representing a maximum for 4 areas of expertise
- iii. At least one EIA Coordinator as a full-time employee
- iv. At least 2 FAEs as full-time employees (see section 4.3 of these Regulations)
- v. The AF shall be considered for accreditation for only those sectors for which EIA Coordinator(s) fulfils the requirements of qualification & experience and also clears Stage III Assessment (e.g., if an EIA Consultant Firm has applied for 15 sectors showing 3 EIA Coordinators and while two of them meet all requirements for all Sectors and one meets the requirements of two sectors, then the organization shall be considered for 10 + 2, i.e., 12 sectors only)
- vi. Having scored 40% and above but below 60% in the Stage III Assessment The AFs which fail to score 40% marks in Stage III Assessment would not be recommended for registration to the Registration Committee.

The consultants who fail to get Category A classification or any Category of registration, will be informed by EPA Punjab of the areas in which they need to improve to get desired registration. Such consultants may re-apply to EPA Punjab after a gap of at least 3 months, once they feel confident of having fulfilled the necessary requirements.

The decision of the Registration Committee, EPA Punjab will be the final in this respect.

3.0 Additional Points on Accreditation

- a. If an approved EC moves from one EPA Punjab Registered Consultant Firm A to another EPA Punjab Registered Consultant Firm B, the Sector(s) approved for the Coordinator will not automatically add up to the scope of the Consultant Firm B. The Consultant Firm B needs to inform EPA Punjab of joining of the new EC. EPA Punjab will issue a letter or a revised certificate confirming acceptance of the new EC only for Sectors originally approved for the Consultant Firm B. For incorporation of additional sectors (if any) with newly inducted EC, the Consultant Firm needs to apply to EPA Punjab and join the queue.
- b. In case an approved FAE moves from an EPA Punjab Registered Consultant Firm A to another EPA Punjab Registered Consultant Firm B, the functional area(s) approved for her/him for the Registered Consultant Firm A may be utilized by Consultant Firm B. The Consultant B must inform EPA Punjab of such arrangement within one month of the FAE joining them.
- c. Initially the EIA Consultant Firm are being classified under two categories: A & B. However, going forward, it is proposed to further classify the consultants in more detail to afford the project proponents to select the right consultant with right degree of expertise, experience, systems, and facilities.

4.0 Changes after Registration

4.1 In Organization, Arrangements and Experts

- a. The EIA Consultant Firm shall inform EPA Punjab of any major changes that it makes in its Quality Management System Manual, documents, locations, etc. Such intimation should preferably be given as early as possible of affecting the changes, or at least once in 6 months after receiving initial registration or prior to Assessment.
- b. In case of any change in experts, who have been considered in the assessment process, immediate intimation must be given to EPA Punjab. The replacements (inhouse/empanelled, as the case may be, meeting EPA Punjab requirements) should have equivalent or higher qualification and experience. Necessary documents supporting educational qualification and experience of such replacement experts shall be submitted to EPA Punjab within one month of such change(s). Such expert(s) proposed shall go through the process of Stage I, II and III assessment. EPA Punjab would intimate the Consultant Firm of its acceptance or otherwise.
- c. For EIA Coordinator(s), if the replacement expert does not clear Punjab EPA's assessment and happens to be the only EIA Coordinator for the concerned sector(s), such sector(s) will stand withdrawn from the Scope of Registration of the Consultant Firm.
- d. For Functional Area Experts, in case a replacement expert proposed does not clear Punjab EPA's assessment, one more opportunity will be given to the Consultant Firm to propose an alternate name and get it approved. If the expert(s) still fails to get approved and happens to be the only expert in the concerned functional area, the registration of the Consultant Firm shall be suspended till it gets a suitable alternate expert(s) approved for the same. All steps of the above process will have to be completed within 3 months of the change.

4.2 In scope of Accreditation

- a. For any change in the scope of registration, the Consultant Firm needs to apply to EPA Punjab and join a separate queue of such applications, which will be posted on the Punjab EPA website. Such changes will be considered as and when its turn comes in the queue or during the next assessment, whichever is earlier.
- b. The assessment for changes in the scope shall follow the Initial Assessment process. All necessary documents, as required for initial assessment, shall be submitted along with the application for change in scope.
- c. Charges for such alterations/additions as applicable, over and above the assessment charges, will be intimated to the applicant by EPA Punjab.

5.0 Steps to be taken after Registration

The registration of an EIA Consultant Firm will be subject to compliance to the requirements of these Regulations. These include, but not limited to:

- i. Implementation of systems/procedures documented in the Quality Management System Manual of the Consultant Firm.
- ii. Timely replacement of experts: In case of absence of the accepted EIA Coordinators/Functional Area Experts for any of the registered sector/expertise area(s), the Consultant Firm shall ensure that a suitable replacement following the procedure mentioned in Section 4.1 of these Regulations.
- iii. Intimation of Changes: In case of any change in the Firm related to systems, procedures, laboratory and other facilities, the same shall be intimated to EPA Punjab once in 6 months. Such changes shall be audited by EPA Punjab in the next assessment or as deemed fit by it.
- iv. Submission of annual fees to EPA Punjab as per the terms of registration are detailed in Appendix 6.
- v. An EIA report will be deemed to have been completed when it has been submitted to the approving authority namely, EPA Punjab or the Division/District Level EACs, as applicable.
- vi. The name of EIA Coordinators and FAEs involved shall be recorded in all EIA reports. These reports should contain requisite signatures of the EIA Coordinator and the FAEs involved. This should be also authenticated by the head of the Consultant Firm under his/her signature.
- vii. The Consultant Firm shall strictly follow the requirements pertaining to conditions for suspension or cancellation of registration as mentioned in Section 13.2 of these Regulations.
- viii. The Consultant Firm shall maintain the following records:
 - a. A register of attendance of employees involved in EIA assignments.
 - b. Names of the experts (both in-house and empanelled) involved in various EIA projects handled by the Consultant Firm.
 - c. Details of involvement of empanelled experts, in terms of time devoted to various EIA projects.
 - d. Updated declaration of Empanelled Experts indicating the number of organizations they are associated with.

CLOSURE OF APPLICATION

An application has to be complete in all respects for the assessment process to be completed. At all stages of assessment certain vital information must be available, which is explained below:

1. Stage I - Completeness of Application by EPA Punjab

At this stage, apart from other aspects as indicated in the Application Form, availability of Experts is a must:

- a) At least 3 in-house experts comprising one EC who together with another two in-house FAEs would meet the requirements in terms of qualification and experience to cover the core functional areas namely, AP, WP, SHW, SE and EB
- b) For AP, WP and SHW there have to be in-house experts, while for SE and EB it could be in-house or empanelled. However, if the SE and EB experts are empanelled, then prior to the first assessment, these should be available as in-house full time employees.

2. Stage II - Document Review by Principal Assessor

On the basis of document assessment, certain non-conformances (NCs) or Observations (Obs) may be raised by EPA Punjab. These may relate to experts being ineligible (not meeting these Regulation's requirements), information regarding the organization or laboratory arrangements or on completeness of the Quality Manual to be submitted by the Applicant Firm. These NCs and Observations are to be closed by the Applicant before the Stage III of the assessment may be taken up.

3. Stage III - Office Assessment by Principal and Associate Assessors

After Stage III assessment, certain queries and information may also be sought from an Applicant Firm. These may include submission of experience details of experts in format IV A and IV B for ECs and FAEs, respectively, if not already submitted, scope of certification of the laboratory, scanned copies of some of the documents seen by EPA Punjab Assessors, etc. Such requirements will be intimated during the Stage III by Assessors.

Generally, two-weeks time will be given to an Applicant Firm to furnish the required information. In case it requires appointment of an in-house expert, three months' time may be given to fulfill such requirements. In case complete information/clarifications meeting the requirements of these Regulations are not received within the above time frame, 15 days notice will be given to submit the same. In case complete information/clarifications are not received by the end of the said notice period, the concerned application will be sent to the 'pending' list. If even after 6 months of that,

all requisite information is not submitted to EPA Punjab, the concerned application will be treated as 'closed' and the concerned AF will be informed accordingly.

FEE STRUCTURE

#	Fees Details	Fees (in Rs.) (actual or basis of charges)	
A	1st Year – Initial Assessment		
1	Application Fee	50,000/-	
2	Document Review (Based on the number of ECs & FAEs subsequently till the closure of NCs &	s proposed in the original application and Obs in F2)	
	➤ Up to 15 Experts ¹	2 Person days ²	
	➤ 16 to 30 Experts	3 Person days	
	➤ 31 to 45 Experts	4 Person days	
	➤ 45 and above	5 Person days	
3	Office Assessment (Based on No. of ECs & FAEs put up for interview) > Up to 15 Experts > 16 to 30 Experts > 31 and above	2x2 Person days 2x3 Person days 2x4 Person days	
4	Analysis of the office assessment and the preparation of final report (Based on No. of ECs & FAEs proposed) > Up to 30 experts More than 30 experts	1x1.5 Person day 2x1.5 Person days	
5	Travel, Boarding and Lodging	At actuals ⁴	
6	Annual Fee Accreditation costs ⁵ Fees for Sectors accredited ⁶	Rs. 20,000/- Rs. 6,000/- per Sector accredited	
В	2 nd Year – Assessment including modification in scope of accreditation		
1	Document Review − > Up to 5 Sector (not exceeding 15 Experts ⁷) > Between 6 and 10 Sectors (not exceeding 20 Experts) > > 10 sectors	1x2 Person days 1x3 Person days	

		1x4 Person days
2	Office Assessment	
	➤ Up to 5 Sector (not exceeding 10 Experts ⁸)	2x2 Person days*

- 2. Application fee is to be sent along with the application. Applications not accompanied by the application fee will not be considered.
- 3. Annual fee for the first year is to be sent only after the receipt of confirmation from EPA Punjab of the applicant having been approved for registration. Certificate will be sent after receipt of full fees and expenses to EPA Punjab.
- 4. Yearly renewal of registration will be given only on payment of all dues to EPA Punjab.
- 5. All fees are nonrefundable.

List of Annexures

#	Annexure	Description
1	Annexure I:	Application Form
2	Annexure II:	Project sectors
3	Annexure III:	Laboratory details
4	Annexure IV:	Resume Format
5	Annexure IVA:	Sectoral Experience of ECs
6	Annexure IVB:	Specific Experience of FAEs
7	Annexure V:	Declaration for empanelled experts
8	Annexure VI:	Checklist for documents to be submitted with initial application
		application
9	Annexure VI A:	Checklist for documents to be submitted for assessment
10	Annexure VI A1:	List of EIAs prepared during the year
11	Annexure VI A2:	List of Approval Experts
12	Annexure VI A3:	Laboratory details

APPLICATION FORM FOR REGISTRATION WITH EPA PUNJAB

(Attach sheets if necessary for more information)

Nam	ne and Address of the Firm	Affix Passport Size photograph of contact person
Nam	ne of the Head of the Firm	
Cont	tact details: name and address of the contact person	
Nam	ne:	
Add	ress:	
Tel l	No(s)	
Mob	pile	
Ema	il	
Lega	al Status of the organization (please mark (✓) the appropri	iate status)
a)	Public / Private / Government	
b)	Company/Partnership/Proprietorship/Registered Soc	iety
c)	Research / Academic Institute	
d)	Industry Association	
e)	Others (please specify and attach necessary evidence)	
	of Registration/Incorporation (attach copy of certificate of stration)	fincorporation/
D	D M M Y Y Y Y	
	Established in Year:ices provided by the Firm:	

0)	EIA activities started from:			
8)				
	D D M M Y Y Y	Y		
9)	Number of Employees Total			
	For EIA/Environmental	activities		
10) for the	Annual Income of the Firm in last 3 years) Total	n Rupees (attach	balance sheet and Inc	ome Tax returns
	EIA related Other environmental se	rvices		
	Organizational Structure of t functional firms, the organizated out (attach organization ch	tion structure o	f the stream related	, ,
12) sector	The Sectors with their num (s) for registration with EPA Pr		· ·	Γick the project
qualifi declar	Technical Expertise (full-time zation (attach CVs in formalication, experience, exposure ations of EIA Coordinators/Furith others, in the format given in	ats IV, IV A and ats IV A and IV	and IV B) for expe of empanelled expe	erts' educational erts, also attach
EIAC	oordinator			
No	Name	Full Time or Empanelled	Sector (See Annexure II)	CV Attached
i.				
ii.				
iii.				
iv.				
Total 1	Numbers of Employees:	a) Full Time		<u> </u>
10001	The state of Employees.	b) Empanelle	ed	
Functi	onal Expert(s). Please use acro	onyms given belo	OW.	

No	Name	Full Time or Empanelled	Functional Area	CV Attached
i.				
ii.				
iii.				
iv.				

Total Numbers of Employees:	a)	Full Time	
	b)	Empanelled	

Documentary evidence for the stated experience and training of the proposed EIA Coordinators and Functional Area Experts to be provided to EPA Punjab Assessors during interview.

Acronyms for the Functional Areas*

No	Functional Area	Acronym
1	Land Use	LU
2	Air Pollution Control	AP
3	Air Quality Modeling	AQ
4	Water Pollution Control	WP
5	Ecology & Bio Diversity	EB
6	Noise/ Vibration	NV
7	Socio Economy	SE
8	Hydrology and Ground Water	HG
9	Geology	GEO
10	Soil Conservation	SS
11	Risks & Hazard	RH
12	Solid & Hazardous Waste	SHW (MSW/ISW/HW)

14)	How is field monitoring done to collect baseline physical environmental data?
	☐ In-house laboratory ☐ External laboratory
14.1	For in-house arrangement, please provide details as per Annexure III .

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^{*} Please see the document (section 3.2) for the subject coverage of each of the above functional areas. Use separate sheet for additional names.

	14.2	If external laboratory,	please submit	details as 14.1	above along	with the following
--	------	-------------------------	---------------	-----------------	-------------	--------------------

- a) Procedure for identifying, selecting and approving field monitoring agencies
- b) Procedure for performance monitoring of the outside laboratory
- c) Registration certificate, yearly income of the laboratory and certificate of satisfactory work completed from at least 5 clients
- 14.3 Submit copy of the EPA Punjab Certification for the external laboratory and the parameters certified for.

param	CtCI.	s certified for.					
14.4 each la		r all external laboratories, submit copies of agreements with scope of coverage o atory.					
15)	F	urnish details of prediction model/software available in respect of:					
	a)	Air environment					
	b)	Water environment					
	c)	Noise environment					
	d)	Any other					
16)	Or	ganization's experience in EIA Studies					
	a)	The number of EIA studies carried out in the last three years					
	b)	b) For above attach the complete list of EIAs conducted for 'Centre & State Level' giving complete name of Project, Name of Client, Clearance Status & Period					
	c)	c) Attach the list of clients in last three years (not exceeding ten in number) and copies of their work orders					
	d)	Provide name(s) and sector(s) of projects mentioned at (b) above with capital investment (for three projects)					
	e)	Provide completion certificates from clients for the projects mentioned at (b) above					
17)	Ou	at of the EIA studies carried out in last three years:					
	a	. Numbers that went through public consultation process					
	b	Number of public consultations required for these EIAs					
	c	Please attach minutes of public consultation for two cases including actions taken.					
18)	Number of EIA studies presented before EPA Punjab						
		close a copy of one EIA Report (Hardcopy) prepared by the firm in the preceding from the date of application.					
19.	En	close a copy of Quality Management System Manual					
20.	Pl€	ease find enclosed the Demand Draft for Rs in favor of General, Environmental Protection Agency, Government of the Punjab payable					
Direct	or (Is th	General, Environmental Protection Agency, Government of the Punjab payable application fee.					

21. **Declaration**

We have carefully read all the Guidelines for registration of EIA Consultant Firm. The conformity of eligibility of the experts proposed, to the requirements of the Scheme, has been verified by us at our end. We confirm that the information provided in the application in support of the application is correct to the best of our knowledge and belief.

We authorize EPA Punjab to make any enquiry as deemed fit as part of the reviewing process. We understand that in case any information is found to be incorrect, it may result in rejection of this application and/or disqualification. We authorize EPA Punjab to utilize the information provided in this application for legal, research, training, and/or for any other purpose as may be deemed fit by EPA Punjab. If registered, we commit to notify EPA Punjab immediately of any changes in the

If registered, we commit to notify EPA Punjab immediately of any changes in the status where information regarding such changes, if declared may affect the consideration for registration of the firm.

Signatures	
Name (Authorized Signatory)	
Designation	
Consultant Firm	
Date	

Project Sectors

Please tick the desired project sector(s) for registration with EPA Punjab.

No.	Sector	Tick
1	Mining of minerals including Opencast / Underground mining	
2	Offshore and onshore oil and gas exploration, development & production	
3	River Valley, Hydel, Drainage and Irrigation projects	
4	Thermal Power Plants	
5	Nuclear power projects and processing of nuclear fuel	
6	Coal Washeries	
7	Mineral beneficiation including pelletization	
8	Metallurgical industries (ferrous & non ferrous) – both primary and secondary	
9	Cement plants	
10	Petroleum refining industry	
11	Coke oven plants	
12	Asbestos milling and asbestos based products	
13	Chlor-alkali industry	
14	Soda ash Industry	
15	Leather/skin/hide processing industry	
16	Chemical fertilizers	
17	Pesticides industry and pesticide specific intermediates (excluding formulations)	
18	Petro-chemical complexes (industries based on processing of petroleum fractions & natural gas and/or reforming to aromatics)	
19	Textile – cotton and manmade fibers	
20	Petrochemical based processing (processes other than cracking & reformation and not covered under the complexes)	
21	Synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and intermediates excluding drug formulations; synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates)	

22	Distilleries	
23	Integrated paint industry	
24	Pulp & paper industry excluding manufacturing of paper from wastepaper and manufacture of paper from ready pulp without bleaching	
25	Sugar Industry	
26	Oil & gas transportation pipeline (crude and refinery/ petrochemical products), passing through national parks/ sanctuaries/coral reefs /ecologically sensitive areas including LNG terminal	
27	Isolated storage & handling of Hazardous chemicals (As per threshold planning quantity indicated in column 3 of schedule 2 & 3 of MSIHC Rules 1989 amended 2000)	
28	Air ports	
29	All ship breaking yards including ship breaking units	
30	Industrial Estates/ parks/ complexes/areas	
31	Common hazardous waste treatment, storage and disposal facilities (TSDFs)	
32	Ports, harbours, jetties, marine terminals, break waters and dredging	
33	Highways, railways, transport terminals, mass rapid transport systems	
34	Aerial ropeways	
35	Common Effluent Treatment Plants (CETPs)	
36	Common Municipal Solid Waste Management Facility (CMSWMF)	
37	Building and large construction projects including shopping malls, multiplexes, commercial complexes, housing estates, hospitals, institutions	
38	Townships and Area development projects	
39	Additional Sectors:	
	i. Automobile and Auto Components	
	ii. Electroplating and Metal Coating	
	iii. Electrical and Electronics including component industry	
	iv. Glass and Ceramic Industry	
	v. Food Processing	

Laboratory Details

No	Information	Reply	
1	Name of the Laboratory		
2	Address of the Laboratory		
	(Include email address)		
3	Contact person with designation		
4	Branch(es) and address(es)		
	(include email address)		
5	Income of the laboratory during		
	last three years (in Rupees)		
6	ISO - 9001 and/or an ISO17025		
	certified Lab?		
7	If EPA Punjab Certified	Attach copy of certificate and scope of accred	itation
8	List of services provided	Ambient air quality monitoring -	
	(provide details)	Stack monitoring -	
		Water sampling and analysis -	
		Wastewater sampling and analysis -	
		Soil sampling and analysis -	
		Noise monitoring -	
		Meteorological data monitoring -	
		Terrestrial ecological survey -	
		Marine ecological survey -	
		Satellite imagery data interpretation -	
		Hydrology survey -	
		Marine studies -	
		Treatability studies -	
		Other (specify)	
9	List of Laboratory equipment		
	(Provide details with type and		
	make)		<u> </u>
10	List of monitoring equipment	Meteorological data collection:	<u>No.</u>
	(Provide detailed list with type	Automatic -	
	and make)	Manual -	
		High volume sampler -	
		Noise meter -	
		Respirable particulate matter sampler -	
		HC sampler -	
		Soil sampler -	
		Marine ecology sampling kit	
		Water sampling kits -	
		DG set	
		Stack air sampler kit -	
		Other (specify)	

No	Information		Reply	
11	Calibration of equipment	Is documented p copy)	procedure available	e? (If yes, attach its
12	Details of Laboratory Personnel			
13	Total No. of employees			
	Designation	No. of Employees	Educational Qualification	Years of field experience
14	Sampling and sample control.	Provide details of Sample Plan Sample identified Sample registrate Sample retention Sample Trailing	tion n and storage.	
15	Laboratory safety program provide details	- 1	rocedure for labor gency plan and tra	2
16	List of jobs executed in the last one year (provide satisfaction certificate from at least three clients)			
17	Do you have capability for mobile laboratory set up? If yes, state details (equipment, personnel etc.)			

Annexure IV

Resume Format

(For EIA Coordinator / Functional Expert)

Affix Passport Size Photograph

Mr.	/Ms./Mrs.						
		(First Name)		(Middle Nam	ne)	(Last Name))
1.	Role in	the Organization:	Full	Time Employe	e	Empanelled Expert	
			EIA	Coordinator		Functional Expert	
	i)	Sector(s)					
	ii)	Area(s) of Expert	ise				
2.	Date of I	Birth					
3.	Home ad	ldress					
4.	Tal No			5.	Eov No		
6.	Email ad	dress					
7.	Office ac	ldress					
\ 8.	Tel. No.			9.	Fax No)	
10.	Email ad	dress					
11.	Mailing	address					

12. General Education (Semoi Secondar)	12.	General	Education	(Senior	Secondary	V
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Period (Year)	Qualification	Educational Institution & Address	Subjects	Grade

13. Technical Education (Graduation & above):

Period (Year)	Qualification	Educational Institution & Address	Subjects	Grade

14. Training courses attended:

No.	Title of the Course	Conducted / Organized by	Dates At		Result
110.	Title of the course	(Name & Address)	From	То	resurt

15.	Membership	of Profe	essional	Bodies

No.	Professional Body (Name & Address)	Membe	Valid Till	
NO.	Professional Body (Name & Address)	Grade	No.	vanu im

16. Experience (in chronological order with present experience listed first):

A. General:

Period (Month & Year)	Organization with Address	Department	Designation	Role/Responsibilities

B. Related to Environmental Impact Assessment:

Period (Month & Year)	Organization with Address	Department	Designation	Role/Responsibilities*

17. **Declaration by the applicant**

* Specific Role (like EIA Preparation Team or Client of EIA)

I attest that the above in I do understand that any incorr and the organizational registration	rect information wi	ll result in the			
Signature		Date	/	/	
18. Declaration by the em	ployer				
The above information in relationships been verified and found to be		-			
I understand in case the inform suspension of this application for			nay result	in the rejection	on/
Attested by:					
Authorized Signatory:					
Name:					
Designation:					

EIA COORDINATOR – Sectoral Experience

1. N	Mr./Ms./Mrs.			
2. I	(First Name) Educational Qualification	(Middle Name)	(Last Name)	
No.	Qualification (Degree/Diploma)	Subject/ Field	University/ Institution	Duration of Course (yrs) & Year of completion
1				
2				
3				
4				
5				
i. ii ii ir				

- 4. Sectoral Experience (in chronological order)
 - a. As an employee in an industry in the sector/(s) for minimum 2 years (not as a consultant)
 - b. Please leave this table blank, if not applicable.

No.	Sector (As per Annexure II of Scheme)	Industry (Name of the Company)	Period ^a (Years)	Department and role
1				
2				
3				
4				
5				

c. Environmental Assignments (auditing/ monitoring/ performance evaluation etc.)

No.	Sector	Name of the Employer	Name of the Project (also mention the capacity & Cat. A/B, if applicable)	Name of the Client (for whom the work was carried out)	Period ^b (Year/ Months)	Type of Assignment
1						
2						
3						
4						
5						

<sup>a please mention the period of employment. For e.g.: 1971 - 74
b please mention the period of assignment e.g.: Feb. to April 1978</sup>

d. EIAs

No.	Sector	Name of the Employer	Name of the Project (also mention the capacity & Cat. A/B, if applicable)	Name of the Client (for whom the work was carried out)	Year	Role (EIA Coordinators or as Team Member)	Whether approved by Any EPA
1							
2							
3							
4							
5							

NOTE:

- If an EIA Coordinator has also been proposed as a Functional Area Expert, form IV B should be filled up
- Environment monitoring carried out for an EIA study cannot be separately shown as an assignment also, over and above the EIA.

Functional Area Expert – Specific Experience

	(First Name)	(Middle Name)	(Last Name)	
Edu	ucational Qualification			
No.	Qualification (Degree/Diploma)	Subject/ Field	University/ Institution	Duration of Course (yrs) of Year of completion
1				
2				
3				
4				
5				
Sec i. ii. iii. iv.				

Please use separate rows for different functional area/s. Also indicate the projects which were linked with EIA.

No	Area of Expertise	Name of the Employer	Name of the Project (also mention the Capacity & Cat. A/B, if applicable)	Whether related to EIA (Y/N)	Name of the Client (for whom the work was carried out)	Nature of Experience*	Period & Year
1.							
2.							
3.							
4.							

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^{*} please explain the specific nature of work done

$\underline{Annexure - V}$

Declaration for Empanelled Experts of their Association with the Applicant Firm and Others (to be signed within 60 days preceding the date of application for accreditation)

	s to confirm that I red with the following	ng EIA projects:					am currently
1.	With the Applican	t Firm:					
1a.	As an EIA Coordin	nator					
No.	Name of th	ne Project	Pe	eriod		(As	Sector per Annexure_II)
1b.	As a Functional As	rea Expert					
No.	Name of th	ne Project Period		riod		Functional Area (As per Scheme)	
2.	With other Firm(s))			,		
2a.	As an EIA Coordin	nator					
No.	Name of the Firm	Name of the P	Project	Peri	riod (As		Sector s per Annexure II)
2b.	As a Functional A	rea Expert			•		
No.	Name of the Organization	Name of the	Project		Perio	od	Functional Area (As per Scheme)

the only ones that I am involved w	(mention the number) Firm mentioned above are vith. I also confirm that I am not a part of an Expert Punjab, and that information provided above are true
Name:	
Signature:	
Date:	
Present Status a. Freelancer	(Please tick the appropriate one) Yes/No
b. Working as Full-time Emp (If yes, name of Firm	loyee Yes/No
Complete Correspondence Addr	ess:
<u>Declarati</u>	on by the Applicant Firm
the appropriateness of the informa-	ed complete due diligence on my part in ascertaining ation furnished above by the expert ployed in our firm from (month) (year).
Name:	
Designation:	
Firm:	
Signature:	
Date:	

Checklist of Enclosures – Original Application

Ensure that the following are enclosed with the application:

	Documents to be enclosed	Yes/No
1.	Filled in Application form with the photograph of the contact person (Annexure III)	
2.	Application Fees	
3.	Copy of the Legal Status of the organization including the date of registration/incorporation	
4.	Organization Balance Sheet and Income Tax Returns, for the last three years (depends on date of registration of organization)	
5.	Organizational Structure with respect to the people involved in EIA as well as in other activities (Flow Chart in Hierarchy)	
6.	Signed Resume of EIA Coordinator/s with photographs (Annexure IV) ORIGINAL COPIES	
7.	Signed Resume of Functional Area Experts with photographs (Annexure IV) ORIGINAL COPIES	
8.	Declaration of in-house and empanelled EIA Coordinator/ s and Functional Area Expert/s of their association (as per Annexure V Rev. 1) and declaration of their association with other organizations, if applicable	
9.	Procedure for identifying/ approving/ deploying/ monitoring performance and ensuring knowledge updation of empanelled experts	
10.	Procedure for ensuring updation of knowledge of full time experts	
11.	Laboratory Copy of certificate & scope of certification by EPA Punjab. Following details vide Annexure III (for in-house/out-side laboratories)	
	i. CVs of laboratory staff	
	ii. Details of field monitoring and laboratory instruments / equipment	
	iii. Procedure for calibration of equipment	

	Documents to be enclosed	Yes/No
	iv. Procedure for laboratory safety including emergency plan and	
	training	
	v. Procedure for identifying, selecting and approving field	
	monitoring agencies (for out-side laboratories), if applicable	
	vi. Procedure for performance monitoring of out-side laboratories,	
	if applicable	
	vii. Registration certificate, yearly turn-over and certificate of	
	satisfactory work completed from $2-3$ clients (for out-side	
	laboratories)	
12.	Gazette Notification and the copy of application for EPA Punjab	
	Certified laboratories	
13.	Procedure followed for ensuring credibility and appropriateness of	
	gathering of Primary and Secondary data	
14.	Procedure for work outsourced including methodology for	
	assessing capability of the agency and quality of work outsourced	
15.	Names of models/ software being used for data generation	
16.	Client list, work orders and completion certificates vide point 16 c.	
	of the application form	
17.	Names and sectors of three projects for which EIAs were carried	
	out by your organization, with capital investment (vide point 16 d.	
	of application form)	
18.	Records of public consultation for two cases including actions taken	
19.	One EIA report (prepared within preceding two years)	
20.	Quality Management System Manual	
21.	Copies of promotional material	
22.	Complete list of EIAs conducted for 'Centre & State Level' giving	
	complete name of Project, Name of Client, Clearance Status & Period	
23.	Hard Copy of the application must be printed on both sides of the	
	page. Please also send a soft copy of the application with all	
	documents	

Checklist of Enclosures - Assessment

Ensure that the following are enclosed with the application:

	Documents to be enclosed	Yes/No
1.	List of EIA Reports prepared during the last one year giving requisite details as per Annexure VI A (1)	
2.	Updated Quality Management System Manual	
3.	Complete list of approved experts with Sectors/FAs in the format given in Annexure VI A (2)	
4.	Declaration of Association/ Agreement/ NOCs for employees / empanelled experts, as applicable	
5.	Details of laboratories used along with the Scope and Work orders as per Annexure VI A (3)	
6.	Hardcopy of 2 EIA Reports	
7.	Copies of the minutes of the public consultation and meetings	
8.	Hardcopy & Soft copy of the complete application document	

List of EIAs Prepared during the Year

- 1. Name of Consultant Firm:
- 2. Contact Person & Address:
- 3. EIAs/ Assignments done in the last 1 year:

	Name of the project		Name of Client	Name of EIA Coordinator/ Assignment Head involved	Functional Area Experts involved		Public Consultation Conducted	Davis 4 of	Status of Approval with EPA	
No	No Sector (see Annexure II) (specifying Cat./Capacity/ Area, as applicable)	FA			Name(s)	Yes/No	Period of EIA	Number of times discussed in EPA	Yes/No	
1					LU					
					AQ					
					AP					
					WP					
					EB					
					SE					
					NV					
					GS					
					HG					
					RH					
					SHW					

List of Approved Experts

			0111pp10;04 = 11p01			
No.	Name	IH/Empanelled	Sector/s or Area	Category	Status (whether still with the Firm)	Change/ Redistribution of Sector/ FAs, if any
EIA Coo	rdinator/s					
1						
2						
Function	al Area Expert/s					
1						
2						

Details of laboratories utilized during the year for baseline data generation

No	Name of the Laboratory with complete address	Accreditation/Registration Status			Name of the project (EIA/Assignment)	Name of experts involved in sampling from Applicant Firm	Whether any negative comment by EPA about laboratory data
		Scope	Yes/No	Valid till			
1		Ambient Air					
		Water & Waste Water					
		Stack emission					
		Soil					
		Noise					
2		Ambient Air					
		Water & Waste Water					
		Stack emission					
		Soil					
		Noise					
3		Ambient Air					
		Water & Waste Water					
		Stack emission					
		Soil					
		Noise					

Abbreviations

AA	Associate Assessor
AF	Applicant Firm
CEO	Chief Executive Officer
СО	Carbon Monoxide
CV	Curriculum vitae
EAC	Expert Appraisal Committee
EC	EIA Coordinator
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
FA	Functional Area
FAE	Functional Area Expert
GIS	Geographical Information System
GLC	Ground Level Concentration
НС	Hydrocarbon
IA	Initial Assessment
ISO	International Organization for Standardization
NOx	Nitrogen Oxides
NC	Non-conformance
Obs.	Observations
PA	Principal Assessor
PM	Particulate Matter
QMS	Quality Management System
RPM	Respirable Particulate Matter
R&R	Resettlement and Rehabilitation
SA	Surveillance Assessment
SO2	Sulphur Dioxide
SPM	Suspended Particulate Matter
TOR	Terms of Reference
VOC	Volatile Organic Compounds