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Mineral Concession (Amendment) Rules, 2020

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MINISTRY OF COAL

NOTIFICATION

New Delhi, the 29th May, 2020

G.S.R. 331(E).—In exercise of the powers conferred by section 13 of the Mines and Minerals (Development and Regulation) Act, 1957 (67 of 1957), the Central Government hereby makes the following rules further to amend the Mineral Concession Rules, 1960, namely:—

1. Short title and commencement.—(1) These rules may be called the Mineral Concession (Amendment) Rules, 2020.

(2) Save as otherwise provided in these rules, they shall come into force on the date of their publication in the Official Gazette.

2. In the Mineral Concession Rules, 1960 (hereinafter referred to as the principal rules), for rule 2, the following rule shall be substituted, namely:—

‘2. Definitions.—(1) In these rules, unless the context otherwise requires,—

(i) “Act” means the Mines and Minerals (Development and Regulation) Act, 1957 (67 of 1957);

(ii) “block boundary” shall mean the geographical boundary of the coal or lignite block expressed by way of co-ordinates specified in the allocation order issued under section 11A of the Act or a notification of reservation issued under section 17A of the Act or vesting order or allotment order issued under the Coal Mines (Special Provisions) Act, 2015 (11 of 2015) or any other instrument or order issued under any other law in force entitling a person to carry out prospecting or mining operations;

(iii) “Form” means a form specified in Schedule I to these rules;

(iv) “geological report” means the detailed report prepared upon completion of prospecting operations in any area containing coal or lignite comprising of all geological, geophysical, exploration, core coal or lignite analysis, hydrological, geo-engineering and other information regarding exploration, location or proof of mineral deposits, acquired during the prospecting operations conducted in such area and includes drilling log;

(v) “illegal mining” means any reconnaissance or prospecting or mining operation undertaken by any person or a company in any area without holding a reconnaissance permit or a prospecting licence or as the case may be, a mining lease as required under sub-section(1) of section 4 of the Act.

Explanation.— For the purpose of this clause,—

(a) violation of any rules, other than the rules made under section 23C of the Act, within the mining lease area by a holder of a mining lease shall not include illegal mining;

(b) any area granted under a reconnaissance permit or a prospecting licence or a mining lease, as the case may be shall be considered as an area held with lawful authority by the holder of such permit of licence or a lease, while determining the extension of illegal mining;

(vi) “project proponent” shall include an allocatee of the coal block under section 11A of the Act or a Government company or corporation in whose favour an area containing coal or lignite is reserved under section 17A of the

Act or a successful bidder or an allottee of a coal mine under the Coal Mines (Special Provisions) Act, 2015 (11 of 2015) or any other project proponent having right under any other law in force to carry out prospecting operations or mining operations for coal or lignite;

(vii) “railway” and “railway administration” have the meanings respectively assigned to them in the Indian Railways Act, 1890 (9 of 1890);

(viii) “Schedule” means a Schedule appended to these rules;

(x) “section” means a section of the Act.

(2) The words and expressions used herein and not defined but defined in the Act or in the Coal Block Allocation Rules, 2017 made thereunder or in the Coal Mines (Special Provisions) Act, 2015 (11 of 2015) or the rules made thereunder shall have the meanings respectively assigned to them in the said Acts or the rules.”.

3. In the principal rules, in rule 8,—

(a) for the words and figure “and Chapter IV”, the words, figures and letter “, Chapter IV and Chapter IVA” shall be substituted; and

(b) for the words “and mining leases”, the words “, mining leases and prospecting licence-cum-mining leases” shall be substituted.

4. In the principal rules, after Chapter III, the following chapter shall be inserted, namely:—

“CHAPTER IIIA

Geological Reports

21A. Applicability.—(1) Notwithstanding anything contained in Chapter III, Chapter V and Chapter VI of these rules, the provisions of this chapter shall apply in respect of all land containing coal or lignite.

(2) On and from the commencement of the Mineral Concession (Amendment) Rules, 2020, conduct of prospecting operations and preparation of geological report in respect of any area containing coal or lignite shall be governed by the provisions of this chapter.

21B. Prospecting operations and preparation of geological report.—(1) For conduct of prospecting operations and preparation of geological report, a project proponent may—

- (i) engage any person upon obtaining prospecting licence or prospecting licence-cum-mining lease from the State Government;
- (ii) engage an entity specified in or notified by the Central Government under the second proviso of sub-section (1) of section 4 of the Act; or
- (iii) engage any Accredited Prospecting Agency, notified under second proviso to sub-section (1) of section 4 of the Act.

(2) Every prospecting operation shall be undertaken and geological report prepared in accordance with Indian Standard Procedure for Coal Resource Estimation issued by the Central Geological Programming Board of Geological Survey of India or any other standard procedure specified by the Central Government.

(3) Every person, entity or agency conducting the prospecting operations under sub-rule (1), shall submit a report of the work done by it during each half of financial year, stating the number of persons and machineries engaged and disclosing the complete geological data, geophysical data and all other information collected during the period to the Central Mine Planning and Design Institute Limited, a Government company and to the State Government within three months from the close of the half year to which it relates.

(4) On the completion or abandonment of prospecting operations or termination of the prospecting licence, whichever is earlier, such person, entity or agency shall also submit a report of the work done along with all information relevant to mineral resources acquired by it in the course of prospecting operations.

(5) The project proponent as well as the person, entity or agency, as the case may be, referred to in sub-rule (1), shall be responsible for the data furnished in the geological report.

21C. Accreditation system for prospecting operations and preparation of geological report.—The QCI-NABET shall grant accreditation to Accredited Prospecting Agency for undertaking prospecting operations and preparation of geological report in accordance with standards and procedures specified in Schedule VI of these rules.”.

5. In the principal rules, in rule 22,—

(i) in sub-rule (4), the portion beginning with the words “On the receipt of the application” and ending with the words “the Central Government for its approval.” shall be omitted; and

(ii) sub-rules (4A), (4B), (5) and (6) shall be omitted.

6. In the principal rules, for rule 22A, the following rules shall be substituted, namely:—

“22A.— Mining operations to be in accordance with mining plan— On and from the expiry of a period of nine months from the commencement of the Mineral Concession (Amendment) Rules, 2020,—

(a) no mining operations shall be undertaken except in accordance with the mining plan, which—

- (i) has been approved under clause (b) of sub-section (2) of section 5 of the Act and in accordance with rule 22B; or
- (ii) is in accordance with the system established by the State Government for preparation, certification and monitoring of mining plan under the proviso to clause (b) of sub-section (2) of section 5 of the Act and rule 22AA:

Provided that the mining operations shall continue to be governed by the existing mining plan approved prior to commencement of the Mineral Concession (Amendment) Rules, 2020, until the same is modified;

(b) any modification in the existing mining plan during the operation of a mining lease shall also be done in accordance with clause (a).

22AA.— System to be established by the State Government for mining plan—(1) The system to be established by the State Government under sub-clause (ii) of clause (a) of rule 22A for preparation, certification and monitoring of mining plan shall be submitted to the Central Government for approval.

(2) The State Government shall seek previous approval of the Central Government for any modification of the system.

(3) The Central Government shall dispose of, with or without modifications, the proposals received from the State Government for approval of system referred in sub-rule (1) or modification of a system referred in sub-rule (2), within a period of three months from the date of receipt of such proposal:

Provided that the Central Government may revoke such approval for reasons to be recorded in writing and duly communicated to the State Government.”.

7. In the principal rules, for rule 22B, the following rule shall be substituted, namely:—

“22B. Preparation and approval of mining plan.— (1) Every mining plan other than those covered under the proviso to clause (b) of sub-section (2) of section 5 of the Act shall be prepared and submitted for approval under this rule, within a period of six months of the preparation of geological report:

Provided that in cases where geological report has been prepared prior to issuance of allocation order or vesting order or allotment order or notification of reservation under section 17A of the Act, and the said geological report is in accordance with sub-rule (2) of rule 21B, the period of six months for preparation and submission of mining plan shall be reckoned from the date of such allocation order, vesting order, allotment order or notification, as the case may be.

(2) For preparation of mining plan under sub-rule (1), a project proponent may engage,—

(i) a person having the following qualifications and experience, namely:—

(a) a degree in mining engineering or a degree in opencast mining or a degree in mining machinery or a post-graduate degree in geology granted by a university established or incorporated by or under a Central Act, a Provincial Act or a State Act, including any institutions recognised by the University Grants Commission under section 4 of the University Grants Commission Act, 1956 (3 of 1956) or any equivalent qualification granted by any university or institution outside India and recognised by Government of India, and

(b) professional experience of five years of working in a supervisory capacity in the field of mining after obtaining the degree; or

(ii) a Mining Plan Preparing Agency accredited for preparation of mining plan by the QCI-NABET.

(3) The QCI-NABET shall grant accreditation in accordance with standards and procedures prescribed in Schedule VI of these rules.

(4) Every mining plan shall be prepared,—

- (i) on the basis of a geological report prepared in accordance with rule 21B;
- (ii) in accordance with the guidelines issued by the Central Government in this regard; and
- (iii) for an area within the block boundary:

Provided that the mining plan may cover an area beyond the block boundary not containing coal or lignite on a certificate issued to that effect by the State Government and that it intends to grant mining lease for such extended area.

(5) The project proponent and the qualified person or the Mining Plan Preparing Agency shall be responsible,—

- (i) for the data furnished in the mining plan;
- (ii) that the mining plan has been prepared in accordance with the guidelines issued by the Central Government in this regard by a person possessing the qualifications and experience specified in clause (i) of sub-rule (2) or by a Mining Plan Preparing Agency.

(6) The project proponent shall submit the mining plan for approval to such officer or authority as may be notified by the Central Government, accompanied with the following, namely:—

- (i) such non-refundable fee as may be specified by the Central Government; and
- (ii) a certificate from the project proponent to the effect that the area covered in the mining plan is not beyond the block boundary or in case the area covered under the mining plan extends beyond the block boundary, a certificate issued by the State Government as specified in the proviso to clause (iii) of sub-rule (4).

(7) Such officer or authority shall, within a period of thirty days from the date of receiving the mining plan, grant approval or direct correction in the mining plan or pass any such order as it may deem fit:

Provided that the aforesaid period of thirty days shall be applicable only if the mining plan is complete in all respects and in case any modification is directed by such officer or authority after the initial submission of the mining plan for approval, the said period shall be applicable from the date of submission of the revised mining plan.

(8) A project proponent aggrieved by any order made or direction under sub-rule (7) may, within thirty days of the communication of such order or direction, apply to the Central Government for a revision of such order or direction thereof.

(9) On receipt of an application for revision, the Central Government shall give a hearing to the aggrieved project proponent and may confirm, modify or set aside the order or direction within thirty days and the decision of the Central Government in this regard shall be final.”.

8. In the principal rules, rules 22BB and 22C shall be omitted.

9. In the principal rules, after rule 22D, the following rules shall be inserted, namely:—

“22E. Modification of approved mining plan.—(1) Subject to provisions of sub-rule (3), in case of any modification in the approved mining plan, the project proponent shall submit the modified mining plan in accordance with rule 22B for approval of the officer or authority notified under sub-rule (6) of rule 22B.

(2) The modification under sub-rule (1) shall be on any of the following grounds, namely:—

- (i) change in method of mining;
- (ii) for facilitating increase in sanctioned peak capacity that is in excess of one hundred and fifty per cent. of the sanctioned rated capacity of the mine;
- (iii) change in leased area;
- (iv) in the interest of safe and scientific mining;
- (v) conservation of minerals;
- (vi) for the protection of environment;

- (vii) addition of reserve by way of proving of reserve in the existing lease area;
- (viii) for change in final mine closure conditions; or
- (ix) such other grounds as may be determined by the Central Government:

Provided that in case of allocated coal mines or blocks, prior approval of the nominated authority or the Central Government shall be required for any modification in the mining plan which result in changes in the terms and conditions or efficiency parameters specified in the agreement entered between the nominated authority or the Central Government and the project proponent, as the case may be.

(3) Notwithstanding anything contained in sub-rule (1), the project proponent may carry on the following minor changes in the approved mining plan and submit specific proposal pursuant to such changes to the Coal Controller with a copy to the Central Government for information, namely:—

- (i) change in land type within the leased area;
- (ii) change in heavy earth moving machinery deployment; or
- (iii) change in location of infrastructure within the leased area.

22F. Misrepresentation.— (1) Any misrepresentation by the project proponent in the mining plan, modification or minor change in the mining plan or any other related documents submitted to the approving officer or authority or the Central Government or the State Government, shall constitute contravention of these rules and render such mining plan, modification or minor change as void.”.

10. In the principal rules, in rule 24, after sub-rule (5), the following sub-rule shall be inserted, namely:—

“(6) The State Government shall examine an application for grant of mining lease and pass an order in writing for disposal of such application.”.

11. Amendment of rule 24A.— In the principal rules, in rule 24A, after sub-rule (1), the following sub-rule shall be inserted, namely:—

“(2) If an application for renewal of a mining lease made within the time referred to in sub-rule (1) is not disposed of by the State Government before the date of expiry of the lease, the period of that lease shall be deemed to have been extended by a period of two years or till the State Government passes order thereon, whichever is earlier.”.

12. In the principal rules, after Chapter IV, the following chapter shall be inserted, namely:—

“CHAPTER IVA

PROCEDURE FOR OBTAINING PROSPECTING LICENCE-CUM-MINING LEASE OF COAL AND LIGNITE IN RESPECT OF LAND IN WHICH THE MINERALS VEST IN THE GOVERNMENT

40A. Applicability of this Chapter: The provisions of this Chapter shall apply to the grant of prospecting licence-cum-mining lease of coal and lignite in respect of land in which the minerals vest in the Government.

40B. Application for prospecting licence-cum-mining lease.—(1) Upon grant of allocation order or vesting order or allotment order, as the case may be, a successful allocatee shall make an application in Form Q for grant of prospecting licence-cum-mining lease, along with such order and any other supporting documents before such officer or authority as the State Government may specify:

Provided that the State Government may, for reasons to be recorded in writing, relax requirement of submission of any of the documents specified in this sub-rule:

Provided further that a successful allocatee may engage an entity under the second proviso of sub-section (1) of section 4 of the Act, in which case, such allocatee shall apply for grant of mining lease after preparation of geological report in accordance with rule 21B and approval of mining plan in accordance with rule 22B and the provisions of Chapter IV shall apply on application, grant and conditions of such mining lease.

- (2) Every application for the grant of prospecting licence-cum-mining lease shall be accompanied by,—
- (a) non-refundable fee of ten thousand rupees;
 - (b) all documents required for grant of a prospecting licence as specified under rule 9; and
 - (c) the security deposit specified under rule 20.

40C. Acknowledgement and disposal of application for prospecting licence-cum-mining lease.—(1) Receipt of an application for grant of prospecting licence-cum-mining lease shall be duly acknowledged by the State Government.

(2) The State Government shall execute a prospecting licence deed in Form F, within a period of ninety days from the date of receiving of such application, complete in all respects.

(3) The provisions of rules 14, 16, 18, 19, and 21 shall apply to such prospecting licence.

40D. Conduct of prospecting operations.— (1) Upon execution of a prospecting licence deed, the said allocatee within the period specified in section 7 of the Act, shall undertake prospecting operations, prepare geological report in accordance with rule 21B and submit a mining plan for approval in accordance with rule 22B.

40E. Conduct of mining operations.— (1) Upon approval of mining plan, the said allocatee shall submit a copy of such approval to the State Government along with all documents required for grant of mining lease as specified under rule 22 for execution of mining lease deed of prospecting licence-cum-mining lease:

Provided that the State Government may, for reasons to be recorded in writing, relax requirement of submission of any the documents specified in rule 22:

Provided further that the State Government may, with previous approval of the Central Government, impose such other conditions for conduct of mining operations in the mining lease deed, as it may deem fit.

(2) The State Government shall execute a mining lease deed in Form K of the Schedule I, within a period of ninety days from the date of receiving of such documents complete in all respects.

(3) The provisions of rules 22A, 22AA, 22B, 22D, 22E, 22F, 27, 29A, 30, 32, 33, 36, 37, 37A, 38 and 40 shall apply *mutatis mutandis*, to such mining lease.

40F. Renewal of prospecting licence.—(1) An application for renewal of a prospecting licence under the prospecting licence-cum-mining lease deed for the purpose of completing prospecting operations, shall be made at least ninety days before the expiry of the prospecting licence and shall be accompanied by a statement containing, -

- (a) reasons for renewal;
- (b) a report of the details of prospecting operations undertaken by the applicant;
- (c) the details of expenditure incurred;
- (d) the number of man days for which the work was undertaken; and
- (e) the justification for the additional period required to complete the prospecting work.

(2) Receipt of an application for renewal shall be duly acknowledged by the State Government within three days of receipt of such application.

(3) The application for renewal shall be accompanied by non-refundable fee of rupees one thousand per square kilometre on a *pro rata* basis of the area for which the renewal of the prospecting licence is applied for.

(4) The State Government may condone delay in submission of an application for renewal of a prospecting licence made after the time limit specified in sub-rule (1), provided that such application has been made before the expiry of the prospecting licence.

(5) An application for the renewal of a prospecting licence shall be disposed of by the State Government before the expiry of the period of prospecting licence and if application is not disposed of within that period, the license shall be deemed to have been renewed for a period not exceeding the period for renewal of prospecting licence under sub-section (2) of section 7 of the Act, or the period for which the application is made, whichever is less.

40G. Renewal of mining lease.— (1) An application for renewal of mining lease under the prospecting licence-cum-mining lease shall be dealt with in accordance with rules 24A and 24B, as the case may be.”.

13. In the principal rules, in rule 45, for clause (ia), the following clause shall be substituted, namely:—

“(ia) mining operations shall be undertaken in accordance with the mining plan, prepared and approved under rule 22B and modified under rule 22E;”.

14. In the principal rules, rule 52 shall be omitted.

15. In the principal rules, after Chapter X, the following chapter shall be inserted, namely:—

“CHAPTER XI

Penalty

76. Penalty.— Any contravention of the provisions of these rules shall be punishable in accordance with the provisions of sub-section (2) of section 21 of the Act.”.

16. In the principal rules, in Schedule I, after Form P, the following form shall be inserted, namely:—

“Form Q

MODEL FORM

APPLICATION FOR GRANT OF PROSPECTING LICENCE-CUM-MINING LEASE

[See rule 40A]

(To be submitted in triplicate)

GOVERNMENT OF.....

Received at.....(place) on.....(Date)

Initial of Receiving Officer... Dated day of 20...

To

.....

.....

Through.....

Sir,

I, the authorized signatory of(name of successful allocatee company or corporation) request that a prospecting licence-cum-mining lease under the Mineral Concession Rules, 1960 be granted to (name of successful allocatee company or corporation).

2.A sum of ten thousand rupees in accordance with Rule 40A of the Mineral Concession Rules, 1960 has been deposited.

3.The required particulars are given below:—

- (i) Name of the applicant with complete address.
- (ii) Is the applicant a private company, public company or corporation?
- (iii) An attested copy of the certificate of registration of the company or corporation shall be enclosed.
- (iv) Nature of business of applicant.
- (v) Number and date of the valid clearance certificate of payment of mining dues(copy enclosed) or affidavit when not holding any mining lease.
- (vi) If on the date of application the applicant does not hold a prospecting licence, it should be stated whether an affidavit to this effect has been furnished to the satisfaction of the State Government.
- (vii) Mineral or minerals which the applicant intends to prospect and mine.
- (viii) Period of prospecting licence stage for which the prospecting licence-cum-mining lease is required
- (ix) Extent of the area the applicant wants to prospect.
- (x) Details of the area in respect of which prospecting licence-cum-mining lease is required. (District, Taluq, Village, Khasra No., Plot No., Area, etc.)
- (xi) (a) Does the applicant have surface rights over the area for which he requires a prospecting licence?
(b) If not, has he obtained the consent of the owner, and the occupier of the land for undertaking prospecting operations. If so, the consent of the owner and the occupier obtained in writing be filed.
- (xii) Brief description of the area with particular reference to the following:
 - (a) the situation of the area in respect to natural features such as streams etc.
 - (b) in the case of village, areas, the name of the village and if only a part of the village is applied for, the khasra number, the area in hectares of each field or part thereof applied for.

N.B. - The areas shall cover whole or recognised part survey numbers.

(c) In the case of forest areas, the name of the working circle, the range and the felling series.

- (d) For areas where no forest maps or cadastral maps are available, a sketch plan should be submitted on scale showing the area applied for together with boundary, if any, of any other existing mining lease or prospecting licence area if the area applied for has any common point or line with the boundaries of existing prospecting licence or mining lease areas.
- (xiii) The areas applied for should be marked on plans as detailed below:
- (a) In case a cadastral map of the area is available, the area on this map should be marked showing the name of the village, Khasra number and area in hectares of each field and part thereof.
- N.B.** - The area applied for shall cover whole survey numbers.
- (b) In the case of forest maps, the area should be marked on the map showing the range and felling series.
- (c) In case neither cadastral nor forest maps are available, the area should be marked on sketch plan drawn to scale showing on this plan all important surface and natural features, the dimensions of the lines forming the boundary of the area and the bearing and distance of all corner points from any important, prominent and fixed point or points.
- (xiv) An affidavit, that the up-to-date income tax returns, as prescribed under the Income Tax Act, 1961, have been filed, and tax due, including the tax on account of self-assessment has been paid.
- (xv) Particulars of the areas mineral-wise within the jurisdiction of the State Government for which the applicant or any person joint in interest with him:
- (a) already holds under prospecting licence and mining lease;
- (b) has already applied for but not granted;
- (c) being applied for simultaneously.
- (xvi) Nature of joint in interest, if any.
- (xvii) If the applicant intends to supervise the works, his previous experience of prospecting and mining should be explained; If he intends to appoint a manager, the name of such manager, his qualifications, nature and extent of his previous experience should be specified and his consent letter should be attached.
- (xviii) Financial resources of the applicant.
- (xix) Particulars of receipted treasury challan attached for the amount referred to at 2 above.
- (xx) Any other particulars or sketch map which the Applicant wishes to furnish.
- (xxi) Authorization letter/ power of attorney from the successful allocatee company authorising the authorised signatory to submit the application for prospecting licence-cum-mining lease is enclosed.

I/We do hereby declare that the particulars furnished above are correct and am/are ready to furnish any other details, including accurate plans as may be required by you.

Yours faithfully,

(Signature and designation of the applicant)

Place

Date

Note:

- 1- The application should relate to one compact area only.
2. Such large-size map, as may be available, should be attached for proper demarcation of the areas, specially when the area Applied for is 40 hectares or less.
3. Detailed plan and topographical map are to be attached in triplicate with the original application.”.

17. In the principal rules, after Schedule V, the following schedule shall be inserted, namely:—

“Schedule VI

[see rule 21C(2) and 22B(3)]

(Standards and procedures for accreditation)

1. **Scheme for Accreditation of Accredited Prospecting Agency (APA)**
2. **Scheme for Accreditation of Mining Plan Preparing Agency (MPPA)**

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1.0 SCHEME FOR ACCREDITATION

NABET, a constituent Board of the QCI, developed Accreditation Scheme for Prospecting and Mining Plan Preparation Agencies/ Organizations (hereinafter called 'the Scheme') with inputs from various stakeholders including experts in the field, regulatory agencies and consultants.

This document describes the scheme's requirements of human resources, consultancy quality assurance systems and procedures to be followed, the assessment process and the accreditation criteria. Various aspects of the scheme are-

- a) Eligibility (who can get accredited) and coverage of the scheme
- b) Human resource – qualification and experience requirement
- c) Scope of accreditation
- d) Consultant organization quality assurance system (CQAS)
- e) Assessment and accreditation process
- f) Closure/suspension/delisting/on hold etc. Of applications

For the implementation of the Scheme, NABET is guided by a group of eminent professionals in the field of Prospecting and Mining and allied subjects and structured secretariat.

One complete cycle of Accreditation covering 3-year period comprising Initial Accreditation, Surveillance Assessment and Re-accreditation process. All the three processes involve assessment in 3 stages:

Stage I	-	Checking completeness of the application by NABET secretariat
Stage II	-	Technical review of documents
Stage III	-	Office assessment

1.1 Eligibility for accreditation

Only organizations meeting the eligibility criteria of this Scheme are considered for accreditation. These consultant organizations can include government bodies, public sectors undertakings and private organizations which could be proprietorship firms, partnership firms or companies (Pvt. & Public Limited), bodies registered under Society Acts, under Section 25 of Companies Act, Research Institutes and the like. All requirements of the Scheme as mentioned in this document are to be complied with for an organization to get accredited. A sole proprietorship owned by an individual or in personal name can also apply if it fulfils all other requirements of the Scheme.

1.2 Scope of the Scheme

The Scheme covers the scopes for Prospecting and Mining Plan Preparation Agency who will prepare Geological Report (GR) and Mining Plan entrusted by project proponent. Hence the scheme is divided into two sections describing guidelines for accreditation of scope viz.

1. Scheme for Accreditation of Accredited Prospecting Agency (APA)
2. Scheme for Accreditation of Mining Plan Preparing Agency (MPPA)

1.2.1 Scheme for Accreditation of Accredited Prospecting Agency

Any Prospecting Agency (Applicant Consultant Organization) must have expertise in all the relevant fields or can have MoU with agencies having particular expertise if they are short of any specific area for preparation of comprehensive geological report. The Accredited Prospecting Agency (APA) organisation can provide consultancy for prospecting services required for Geological Report (GR) preparation. APA should cover following aspects –

- a. Drilling (Coring & Non-coring)
- b. Topographical Survey
- c. Geo-physical survey (borehole & surface)
- d. In-seam Seismic survey, HRSS, Seismic Refraction

- e. Interpretation of Stratigraphy & structure
- f. Coal Quality assessment
- g. Geo-technical studies
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- j. Geological Modelling
- k. Coal / Mineral Resource Evaluation
- l. facility for preserving drilling cores, with self/ drilling partner

1.2.1.1 QUALIFICATION, EXPERIENCE AND FUNCTIONS OF EXPERTS

Experts involved in the Geological Reports preparation comprise Project Coordinator (Prospecting) and Technical Area Experts (TAE). They may be helped by team members. The qualification and experience requirements of the experts and roles envisaged for them are detailed below-

A 1. Project coordinator (Prospecting):

A 1.1 Minimum educational qualifications

- a. Master's (post-graduate) degree/ M. Tech in either subject- Geology/ Applied Geology/Geophysics/Hydrogeology/Remote Sensing & GIS/ from a UGC/AICTE recognized University/ Institution or equivalent.
- b. Desirable – Relevant trainings/ courses of 6 months duration and above.

A 1.2 Experience of Project Coordinator

- a. Minimum 15 years overall work experience after the completion of above-mentioned qualifying degrees.
- b. Officers retired/served for minimum 15 years in Central/ State Government/ Research Institutes/ universities/ Colleges as Geologist will be considered to fulfill the minimum experience.
- c. Proficient in MS office, CAD, ArcGIS, Modelling Software, Data Processing Tools, Geological Modelling Tools.

A 1.3 Specific Experience in Prospecting:

- a. Project Coordinator(PC) must have Specific experience related to planning and managing the advanced Prospecting projects
- b. Designing and implementing QAQC protocols
- c. Geological modelling and Geostatistical analysis,
- d. Resource Estimation and Resource classification in accordance with UNFC, NI 43-101, JORC and SAMREC reporting codes.
- e. Prepared at least 3 Geological Report.
- f. Monitoring of 3 Geological Report (auditing, performance evaluation etc.),
- g. A total of three in combination of (e) and (f)

A 1.4 Expected functions of Project coordinators (Prospecting):

The Project coordinator should be thoroughly aware of Prospecting methodology, requirements and be familiar with the guidelines of report preparation, MMDR Act, Prospecting rules and all relevant regulations and its Amendments. S/he must have a clear concept and thorough knowledge of prospecting and Prospecting requirements. S/he should share this information with other team members.

The expected functions of Project Coordinator are as follows:

- a) Complete understanding about the project specification, develop broad scoping of the project taking into consideration site specific requirements
- b) Meeting with project Director/Owner, framing the methodology for Prospecting program.
- c) In depth understanding in respect of topography, hydrology streams, Geology, Hydrogeology, land use etc.,

- d) Visiting the site for appropriate duration for the selection of sampling locations and deciding the type of samples in consultation with the TAEs.
- e) Collating and reviewing the reports of the TAEs which must include analysis and interpretation of data.
- f) Developing the draft Geological Report and circulating the same amongst team members for final feedback and ensuring completeness of the report.
- g) Discussing the draft Geological Report with the project directors/owners for their comments.

The following areas of expertise have been identified which are required for carrying out these studies-

i.	Geology	GEO
ii.	Geophysics	GP
iii.	Remote Sensing & GIS	RS
iv.	Surveying	SUR
v.	Hydrogeology	HG

A 2.0 Technical Area Expert (Prospecting):

A 2.1 Minimum educational qualifications

- a. Master's (post-graduate) degree/ M.Tech - (Geology, Applied Geology, Geophysics, Hydrogeology, and Remote Sensing & GIS) from a UGC/AICTE recognized University/ Institution.

OR

- b. Bachelor's degree/diploma or equivalent in technical subjects such as Mechanical (Drilling), Geotechnical and Earth Resource Engineering and equivalent from a UGC/AICTE recognized University/ Institution.
- c. Desirable – Relevant trainings/ courses of 6 months duration and above.

A 2.2 Minimum Experience for Technical Area Expert (TAE)

- a. An expert should have a minimum 5 years overall experience in the concerned technical area(s) knowledge in preparing Prospecting/ Geological report(s).
- b. Officers retired/served for minimum 5 years in Central/ State Mining Departments/Organization/ Research Institutes/ universities/ Colleges as Geologist, Geophysicist, Remote Sensing & GIS expert and Hydrogeologist will be considered if work in the respective areas.
- c. Proficient in MS office, CAD, ArcGIS, Modelling Software, Data Processing Tools, Geological Modelling Tools.

A 2.3 Specific Educational Qualification and Experience for each TAE

A 2.3.1 Technical Area Expert - Geology (GEO):

a. Educational qualifications specific to functional area

- i. Master's (post-graduate) degree/ M. Tech in either subject- Geology/ Applied Geology from a UGC/AICTE recognized University/ Institution or equivalent.
- ii. Desirable – Relevant trainings/ courses of 6 months duration and above.

b. Experience specific to functional area must include

- i. Hands-on experience in geological Prospecting, mapping, and data interpretation
- ii. Knowledge of geological principles, basin modelling and mineral reserves
- iii. Preparation of ore body model using SW like Minex, Datamine, Geosoft, Minesoft, Surpac, AutoCAD, etc.
- iv. Familiarity with Prospecting geology concepts and survey processes
- v. Ability to interpret 2D/3D seismic data and create geologic maps and models
- vi. Ability to identify natural resources and determine their economic value
- vii. High level of analytical skills to interpret Prospecting data pertaining to mineral prospects.

viii. Experience in Coal/ Metal mining model preparation is preferred

c. Role and Responsibilities

- a. Performs scouting of Prospecting activities in the region, preparation of Prospecting activity plans and budget
- b. Execution of drilling operations at prospective locations, Collection, evaluation and reporting on field samples and prepare activity logs.
- c. Created and presented accurate geology-based maps, cross sections, and geological models.
- d. Directed, supervised and managed all work performed by field crews and drillers.
- e. Entered and maintained sample information and Prospecting data in relevant database.
- f. Interpreted and complied with all applicable governmental regulations and laws.
- g. Evaluation of geological & mineable resources of proposals received from national & international prospects;
- h. Research on the feasibility of developing these mineral prospects by analysing, reviewing, and forecasting data for operational and business planning and preparation of the feasibility study report.
- i. Study of available GSI, MECL and other Prospecting reports, compilation and correlation for assessing the likely potentiality of the mineral prospect.

A 2.3.2 Technical Area Expert - Geophysics (GP):

a. Educational qualifications specific to functional area

- i. Master's (post-graduate) degree/ M. Tech in either subject- Geophysics/ Applied Geophysics from a UGC/AICTE recognized University/ Institution or equivalent.
- ii. Desirable – Relevant trainings/ courses of 6 months duration and above.

b. Experience specific to functional area must include

- i. Planning and execution of Geophysical Surveys including special studies using suitable geophysical technique and equipment.
- ii. Geophysical methods comprise of measurement of signals from natural or induced phenomena of physical properties of sub surface formation.
- iii. Various physical properties that are made use of in different geophysical techniques are electrical conductivity, magnetic susceptibility, density, elasticity & radioactivity etc.

c. Role and Responsibilities

- i. Prospectively evaluation and Prepare concepts/ plays/ leads/ prospects inventory
- ii. 2D & 3D seismic interpretation incorporated with all wells data, Well seismic calibration
- iii. Evaluate post- drill well findings based on interpretation and integration of data
- iv. Observe the reaction of recording equipment to detect irregularities
- v. Use computers for data management, quality control and communication between the office and field locations
- vi. Carry out Vertical electrical sounding, Magnetic / EM profiling and Borehole logging
- vii. Interpretation of the date, synthesis of results and preparation of reports
- viii. Maintenance and updating of Geophysical records
- ix. Proper transportation and maintenance of equipment's
- x. Must be acquainted with state and national policies.

A 2.3.3 Technical Area Expert – Remote Sensing & GIS (RS):

a. Educational qualifications specific to functional area

- i. Master's (post-graduate) degree in Science/Technology or equivalent in Geology/ Applied Geology/ Geo-informatics from a UGC/AICTE recognized University/ Institution or equivalent".

Or

- ii. BE / B Tech in GIS/ Remote Sensing / Spatial Sciences/ Geomatics / Geoinformatics and any other relevant fields.
- iii. Desirable – Relevant trainings/ courses of 6 months duration and above.
- b. Experience specific to functional area must include**
 - i. Sound knowledge of GPS, GIS and Remote Sensing software's like ArcGIS 10, QGIS, Erdas imaging, Digital photogrammetry
 - ii. Experience on ArcGIS extensions like Spatial Analyst, Data Management tool, Overlay Analysis.
 - iii. Experience in GIS database management.
- c. Role and Responsibilities**
 - i. GIS layer analysis, feature extraction using satellite data.
 - ii. Coordinates and assigns GIS personnel to projects.
 - iii. Provides team lead oversight on projects including quality assurance, data analysis, map production and report production
 - iv. Selects from multiple procedures and methods to accomplish tasks.
 - v. Excavation measurement to slope stability.

A 2.3.4 Technical Area Expert - Surveying (SUR):

- a. Educational qualifications specific to functional area**
 - i. Full time Degree/Diploma in Surveying from a Govt. recognized institute and possessing valid Mines Surveyor's certificate of Competency from DGMS and having one-year post qualification experience in relevant field
 - ii. Desirable – Relevant trainings/ courses of 6 months duration and above.
- b. Experience specific to functional area must include**
 - i. Having post qualification experience in Topographical Survey, Borehole survey and relevant experience.
 - ii. Familiarity with Prospecting geology concepts and survey processes
 - iii. Verify the accuracy of survey data including measurements and calculations conducted at survey sites.
 - iv. Calculate heights, depths, relative positions, and other characteristics of terrain.
 - v. Experience in Coal/ Metal mining.
- c. Role and Responsibilities**
 - i. Search legal records, survey records, and land titles to obtain information about boundaries in areas to be surveyed.
 - ii. Prepare and maintain sketches, maps, reports, and legal descriptions of surveys to describe, certify, and assume liability for work performed
 - iii. Prepare or supervise preparation of all data, charts, plots, maps, records, and documents related to surveys.
 - iv. Determine longitudes and latitudes of important features and boundaries in survey areas using theodolites, transits, levels, and satellite-based global positioning systems (GPS).
 - v. Coordinate findings with the work of engineering and architectural personnel, clients, and others concerned with projects.
 - vi. Plan and conduct ground surveys designed to establish baselines, elevations, and other geodetic measurements.
 - vii. Conducting Topographic survey, leveling etc.
 - viii. Locate and mark sites selected for geophysical prospecting activities such as efforts to locate petroleum or other mineral products.

A 2.3.5 Technical Area Expert - Hydrogeology (HG):**a. Educational qualifications specific to functional area**

- i. Master's (post-graduate) degree in Hydrogeology/Hydrology/Water Resources Management from a UGC/AICTE recognized University/ Institution or equivalent.
- ii. Desirable – Relevant trainings/ courses of 6 months duration and above.

b. Experience specific to functional area must include

- i. Analysis of surface hydrogeological data pertaining to ground water, flow fluctuation, estimation of flows; 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 ground water 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. Geology and Geo morphological analysis/description/ Stratigraphy/Lithology.
- v. Developing Geo-hydrological maps.
- vi. Must be acquainted with state and national policies.
- vii. Understanding of policies, guidelines and the legislation related to ground water

c. Role and Responsibilities

- i. Collecting basic mine production data, such as annual output, drainage quantity, water inflow,
- ii. The water inflow (including static-storage and recharge rate) of mine was predicted and calculated by horizontal catchment channel method, big well method and replenishment quantity method, respectively.
- iii. Hydrogeological condition changes of open-pit coal mine in grass area during production process

A 3.0 Team Member (TM)

A provision of 'Team Member' has been included in the Scheme to provide opportunity to

- a. experienced professionals in their own fields but lacking experience to enter the profession
- b. Existing experts to expand the field of association
- c. Persons who have obtained eligibility qualification but do not meet the experience requirements of TAE or EC
- d. This provision is available only for in-house experts

A 3.1 Expected functions of team member

The team member (TM) is expected to be involved both in field work as well as in the discussions amongst the PC and the TAEs. Since s/he is expected to be knowledgeable in area of expertise, emphasis should be given to acquaint her/him on aspects, developing the management plans and finally in report writing for her/his part of association in the study.

A 3.2 Requirements of Experts/ Number of experts Required:

1. Project Coordinators must be in-house (full time employee).
2. Experts involved in preparing Geological reports must be in-house (full time employee).
3. Any organization to be accredited must have one approved in-house PROJECT COORDINATOR (GL), one in-house TAE (GL).
4. The other TAE may be in-house or empanelled. The organisation must cover remaining TAs as per the project requirement.

1.2.2 Scheme for Accreditation of Mining PLAN Preparing Agency (MPPA)

The Mining Plan Preparing Agency (MPPA) shall prepare Mining Plan in accordance with the standard and procedures approved by Central Government. An applicant / consultant organisation must have expertise in all the relevant fields or can have MoU with agencies having particular expertise if they are short of any specific area for preparation of comprehensive Mining Plan. The Accredited Mining Plan Preparing Agency

(AMPPA) can provide consultancy for services required for Mining Plan and Pre-feasibility/ Feasibility report preparation. AMPPA should cover following aspects –

- a. Mining Plan for underground and open cast mines
- b. Pre-Feasibility/ Feasibility studies of open cast and underground mines
- c. Detailed design of underground and open cast mines
- d. Operational plans for open cast mines
- e. Techno-economic appraisal of mining projects
- f. Technical audit of working mines
- g. Introduction and adaptation of new technology for underground and open cast mines
- h. Preparation of manuals and special reports

1.2.2.1 QUALIFICATION, EXPERIENCE & FUNCTION OF EXPERTS (Mining)

Experts involved in the Mining Plan preparation comprise Project Coordinator (Mining) and Technical Area Experts (TAE). They may be helped by team members. The qualification and experience requirements of the experts and roles envisaged for them are detailed below-

B 1. Project coordinator (Mining Plan)

B 1.1 Minimum educational qualifications

- a. A BE/ B. Tech/ M. Tech Degree in Mining Engineering/ Opencast Mining/ Mining Machinery or equivalent granted by a university established or incorporated by or under a Central Act, A Provincial Act or a State Act including any institutions recognized by the University Grants Commission under Section 4 of the University Grants Commission Act, 1956 (3 of 1956) or any equivalent qualification granted by any university or institute outside India and recognized by Government of India.
- b. Desirable – Relevant trainings/ courses of 6 months duration and above

B 1.2 Experience of Project Coordinator

- a. Professional experience 15 years overall work experience after the completion of above-mentioned qualifying degrees. Modification to a mining plan shall be carried out by a person qualified to prepare a mining plan.
- b. Officers retired/served for minimum **15** years in Central/ State Government/ Research Institutes/ universities/ Colleges will be considered to fulfil the minimum experience.
- c. Proficient in MS office, CAD, ArcGIS, Modelling Software, Data Processing Tools, Geological Modelling Tools.

B 1.3 Mining Plan Preparation Specific experience:

Project Coordinator (PC) must have Mining Plan Preparation Specific experience as follows:

- a. Prepared at least 3 Mining Plans.
- b. Monitoring of 3 Mining Plan (Pre-feasibility/ Feasibility report, auditing, performance evaluation etc.),
- c. A total of three in combination of (a) and (b).

B 1.4 Expected functions of Project coordinators (Mining Plan):

The Project Co-ordinator (Mining plan) shall prepare Mining Plan in accordance with guidelines issued by Central government as per the approved standards and procedures and shall be responsible for correctness of the data furnished. Mining engineers design the future mine layouts capable of achieving production and mine development objectives, taking into account the geological characteristics and structure of the mineral resource. They prepare production and development schedules and monitor progress against these. The Project coordinator should be thoroughly aware of Mining Plan requirements and be familiar with the guidelines of report preparation, MMDR Act, rules and all relevant regulations and its Amendments. S/he must have a clear concept and thorough knowledge of Mining Plan requirements. S/he should share this information with other team members.

Understanding of preparing mining plan including the following activities-

- i. Detailed topography, mine geology, mineral deposit & existence, details of Prospecting, indicating geological and recoverable reserve, sections calculations, slice plan/level plan method, its layout phases, mechanization, operations, mine life, overburden, reservoir, mineral estimation etc and other.

- ii. Blasting parameters, types of explosive, powder factor, storage of explosive.
- iii. Mine drainage, stacking of mineral rejections, use of mineral & its processing and waste disposal,
- iv. Environmental management plan describing the impact of mining and beneficiation on environment on the following over the next five years giving brief information about water regime, biodiversity, quality of air, noise level, climatic conditions, socio-economic, regional aspects and others along with time bound action.
- v. Year wise proposal of reclamation of land.
- vi. Monitoring schedules for different environmental components after the commencement of mining and other related activities.
- vii. Mine closure plan and Rehabilitation & Resettlement plan.
- viii. Leadership quality in planning, selecting and guiding the team.
- ix. Activities related to Safety Planning and accident analysis.

The Mining expert is the key person for preparing Mining reports and plans.

B 2.0 Technical area experts for Mining Plan and Design

B 2.1 Technical Area Experts (TAEs)

Mining Plan and Design is also multi-disciplinary activity where the central figure is the Mining Expert (ME) who should have broad knowledge and practical experience of preparing Mining Plan. S/he should have-

- a) Clarity in the concept of the mining, knowledge of the applicable standards, Acts, Rules and regulations.
- b) Domain knowledge and understanding of the organization, industry.

The following areas of expertise have been identified which are required for carrying out these studies-

i.	Mining Engineering	ME
ii.	Mining Geology	MGEO
iii.	Remote Sensing & GIS	RS
iv.	Civil, Electrical & Mechanical	CEM
v.	Marketing & Finance	M & F
vi.	Socio Economics	SE
vii.	Environment, Health & Safety	EHS
viii.	Geotechnical (optional) GT	

B 2.2 Minimum Educational Qualification for TAEs

- a. A BE/ B. Tech/ M. Tech Degree in Mining Engineering/ Opencast Mining/ Mining Machinery or equivalent granted by a university established or incorporated by or under a Central Act, A Provincial Act or a State Act including any institutions recognized by the University Grants Commission under Section 4 of the University Grants Commission Act, 1956 (3 of 1956) or any equivalent qualification granted by any university or institute outside India and recognized by Government of India.
- b. Professional experience of three (3) years of working in a supervisory capacity in the field of mining after obtaining the degree.
- c. Desirable – Relevant trainings/ courses of 6 months duration and above.

B 2.3 Minimum Experience for TAEs

- a. An expert should have a minimum 5 years overall experience in the concerned technical area(s) knowledge in preparing Mining Plan.
- b. Officers retired/served for minimum 5 years in Central/ State Mining Departments/Organization/ Research Institutes/ universities/ Colleges will be considered if work in the respective areas.
- c. Proficient in MS office, CAD, ArcGIS, Modelling Software, Data Processing Tools, Geological Modelling Tools.

B2.4 Specific Educational Qualification and Experience For Each TAE

B 2.4.1 Technical Area Expert – Mining Engineer (ME):**a. Educational qualifications specific to functional area**

- i. A BE/ B. Tech/ B. Sc Engg. / AMIE / M. Tech Degree in Mining Engineering/ Opencast Mining/ Mining Machinery or equivalent granted by a university established or incorporated by or under a Central Act, A Provincial Act or a State Act including any institutions recognized by the University Grants Commission under Section 4 of the University Grants Commission Act, 1956 (3 of 1956) or any equivalent qualification granted by any university or institute outside India and recognized by Government of India
- ii. Desirable – Relevant trainings/ courses of 6 months duration and above.

b. Experience specific to functional area must include

- i. Mining Plan/ Pre- Feasibility/ Feasibility Project Report preparation
- ii. Design of Mining Methods for OC/UG Coal/ Metal/ Non-Metal Mines
- iii. Knowledge in broad range current and new UG/OC mining operations
- iv. Emerging mining technologies and concepts
- v. Techno- Economic Feasibility for Coal, Metal and Non- Metal Minerals.
- vi. Selection of Mining Equipment's and Machineries.
- vii. Practical experience in risk management in Mine Design.
- viii. Design and scheduling best practice tools and methodologies.
- ix. Knowledge of Geology, GIS, Drill & Blast, mining principals and other related mining support services

c. Role and Responsibilities

- i. Prepare surface and underground plans and blueprints of a mining plans, use of survey data and risk assessment of mine.
- ii. Prepare Mining Plan/ Pre- Feasibility/ Feasibility Project that describe results and processes of mining,
- iii. Reconciliation of Prospecting data from economical mine plan, production plans reports.
- iv. Use of mine planning software - Use specialized software to plan, design and model for mining operations
- v. Planning equipment for mineral treatment; communicate and collaborate with engineering experts
- vi. Generate weekly, monthly, quarterly or annual production plan.

B 2.4.2 Technical Area Expert – Mining Geologist (MGEO):**a. Educational qualifications specific to functional area**

- i. Master's (post-graduate) degree/ M. Tech in either subject- Geology/ Applied Geology from a UGC/AICTE recognized University/ Institution or equivalent.
- ii. Desirable – Relevant trainings/ courses of 6 months duration and above.

b. Experience specific to functional area must include

- i. Preparation of ore body modelling using Geological Prospecting data, its interpretation, mapping using SW like Minex, Datamine, Geosoft, Minesoft, Surpac, AutoCAD, etc
- ii. Ability to interpret 2D/3D seismic data and create geologic maps and models
- iii. Knowledge and experience of the technologies currently implemented for mining plan, GIS, Drilling, mining principals

c. Role and Responsibilities

- a. Performs scouting of Prospecting activities in the region, preparation of Prospecting activity plans and budget
- b. Execution of drilling operations at prospective locations, Collection, evaluation and reporting on field samples and prepare activity logs.
- c. Create accurate geology-based maps, lithologies, cross sections and geological models.

- d. Directed, supervised and managed all work performed by field crews and drillers.
- e. Entered and maintained sample information and Prospecting data in relevant database.
- f. Interpreted and complied with all applicable governmental regulations and laws.
- g. Evaluation of geological & mineable resources from national & international prospects;
- h. Research on the feasibility of developing these mineral prospects by analysing, reviewing, and forecasting data for operational and business planning and preparation of the feasibility study report.
- i. Study of available GSI, MECL and other Prospecting reports, compilation and correlation for assessing the likely potentiality of the mineral prospect.

B 2.4.3 Technical Area Expert – Remote Sensing & GIS (RS):

a. Educational qualifications specific to functional area

- i. Master's (post-graduate) degree in Science/Technology or equivalent in either subject- Geology/ Applied Geology/ Geo-informatics from a UGC/AICTE recognized University/ Institution or equivalent.
- ii. Desirable – Relevant trainings/ courses of 6 months duration and above.

b. Experience specific to functional area must include

- i. Sound knowledge of GIS and Remote Sensing software's like ArcGIS, QGIS, Erdas etc.
- ii. Experience on ArcGIS extensions like Spatial Analyst, Data Management tool, Overlay Analysis.
- iii. Experience in GIS database management.

c. Role and Responsibilities

- i. Remote Sensing, GIS, GPS,
- ii. Digital photogrammetry,
- iii. Excavation measurement to slope stability.

B 2.4.4 Technical Area Expert - Surveying (SUR):

a. Educational qualifications specific to functional area

- i. Full time Degree/Diploma in Mining & Mines' Surveying from a Govt. recognized institute and possessing valid Mines Surveyor's certificate of Competency from DGMS and having one-year post qualification experience in relevant field
- ii. Desirable – Relevant trainings/ courses of 6 months duration and above.

b. Experience specific to functional area must include

- i. Having post qualification experience in Topographical Survey, Borehole survey and relevant experience.
- ii. Familiarity with Prospecting geology concepts and survey processes
- iii. Verify the accuracy of survey data including measurements and calculations conducted at survey sites.
- iv. Calculate heights, depths, relative positions, and other characteristics of terrain.
- v. Experience in Coal/Metal mining.

c. Role and Responsibilities

- i. Search legal records, survey records, and land titles to obtain information about boundaries in areas to be surveyed.
- ii. Prepare and maintain sketches, maps, reports, and legal descriptions of surveys to describe, certify, and assume liability for work performed
- iii. Prepare or supervise preparation of all data, charts, plots, maps, records, and documents related to surveys.
- iv. Determine longitudes and latitudes of important features and boundaries in survey areas using theodolites, transits, levels, and satellite-based global positioning systems (GPS).
- v. Coordinate findings with the work of engineering and architectural personnel, clients, and others concerned with projects.
- vi. Plan and conduct ground surveys designed to establish baselines, elevations, and other geodetic

measurements.

- vii. Conducting Topographic survey, levelling etc,
- viii. Locate and mark sites selected for geophysical prospecting activities such as efforts to locate petroleum or other mineral products.

B 2.4.5 Technical Area Expert – Civil, Electrical & Mechanical (CEM):

a. Educational qualifications specific to functional area

- i. BE/B. Tech/B.Sc. Engg. /AMIE/M Tech in Mechanical/Electrical/Civil Engineering from recognized University or Institute approved by AICTE
- ii. Desirable – Relevant trainings/ courses of 6 months duration and above.

b. Experience specific to functional area must include

- i. Design of various structures for both open-pit and underground mines
- ii. Plan and design hydraulic systems and transportation structures and systems
- iii. Manage the construction, operation and maintenance of the work
- iv. Test soils and various other material to determine the requirement needed for the building of foundations and structures
- v. Assist in the design and drawing of complex electrical systems
- vi. Work extensively with electrical equipment such as circuits and transformers
- vii. Experience in planning and optimising of Plant and Machinery for mining plan

c. Role and Responsibilities

- i. Design and Layout of Civil Infrastructure Design (Township, Water Works Distribution, Domestic Effluent Plant)
- ii. Coal Preparation and coal Handling Units (CHP) Design
- iii. Heavy Earth Moving Machinery Equipments (HEMM) Workshop Design.
- iv. Mine Shafts Units, Mine Ventilation by Simulation Modelling
- v. Washery Design and Implementation of Modern Washability Methods
- vi. In-Pit Crushing and Conveying System (IPCCC) and ROPECON Technology Application
- vii. High Angle Belt Conveying System in both O/C & U/G Mines
- viii. Energy Efficiency Study (Electrical & Diesel Equipments) of Mines and International Bench Marking of the Mining Activities
- ix. Consultancy on "Energy Sensitive Organizational Structure"
- x. All mine specific software development and IT enabled services
- xi. GPS enabled monitoring mechanism

B 2.4.6 Technical Area Expert – Marketing & Finance (M&F):

a. Educational qualifications specific to functional area

- i. CA/ ICWA or B. Tech with MBA.
- ii. Desirable – Relevant trainings/ courses of 6 months duration and above.

b. Experience specific to functional area must include

- i. Experience in establishing commercial viability of the project, Budgeting and financing;
- ii. Identifies the existence of markets or long-term, contracts for the product; and decides whether or not the mine should be developed
- iii. Stripping costs where removal of overburden occurs for production, calculation of stripping adjustments
- iv. Determination of impairment charges

c. Role and Responsibilities

- i. Detailed Project Costing & Financial Structuring.
- ii. Risk Analysis Study
- iii. Macro and Micro Analysis of Project Viability
- iv. Equipment's Depreciation and amortization
- v. Profitability Index Study.

B 2.4.7 Technical Area Expert – Socio-Economics (SE):**a. Educational qualifications specific to functional area**

- i. Master's (post graduate) degree in Social Welfare / Sociology/ Political Science/ Psychology/ Geography/ Anthropology/ Economics/Environmental Economics/Urban Planning/Regional Planning/Environmental Planning, Developmental Sciences

or

Rural Development and Management – rural economics/ Economic Sociology/ Demographic Studies

or

- ii. MBA (Rural Management)

or

- iii. Any other social science related subject

or

- iv. 2 years Post Graduate Diploma in Sociology from recognized Institution like Tata Institute of Social Sciences, Xavier Institute of Social Sciences, Ranchi/Xavier Institute of Management, Bhubaneswar/XLRI, Jamshedpur and other reputed institutes.

- v. Desirable – Relevant trainings/ courses of 6 months duration and above.

b. Experience specific to functional area must include

- i. Conducting baseline socio-economic surveys through interviews/ questionnaire/focused group discussions/participatory rural appraisal (PRA)/rapid rural appraisal (RRA)
- ii. Methodologies on extrapolation of census data to project an up-to-date status including selected ground validation of the same
- iii. Conduct social needs assessment studies
- iv. Evaluation of socio-economic status of both tribal and non-tribal areas
- v. Demonstrated capacity to interact and develop rapport at community level will be an added advantage
- vi. Conduct Rehabilitation and Resettlement (R & R) studies for people displaced due to developmental projects and development for R & R plan
- vii. Assessment of social changes arising out of development projects

The following are the additional expectation from the expert:

- Understanding of policies, guidelines and the legislation related to R & R issues
- Social Impact Assessment of development projects in Rural/ Urban areas

B 2.4.8 Technical Area Expert – Environment, Health & Safety (EHS):**a. Educational qualifications specific to functional area**

- i. B. Tech/B. E/ M. Tech in Environmental Engineering, Civil, Geotechnical engineering or Engineering Geology or equivalent.
- ii. Desirable – Diploma in (Industrial Safety) from premier institutions (like CLI, RLIs, NITIE, NITs, P. G. Diploma recognized by State Board of Technical Education).

b. Experience specific to functional area must include

- i. Outstanding knowledge of EHS management systems and related software

- ii. Familiarity with OHSAS standards and regulations
- iii. Planning of Long-term Sustainability initiatives (Natural capital, Human capital)
- iv. Specifications for Specific Dust emission, water consumption, energy consumption, Solid waste utilization and Green belt development.
- v. Facilitate Engineering & Project department by implementing various environment improvement projects
- vi. Should have experience as Safety Officer preferably in Mining Industry

c. Role and Responsibilities

- i. Prepares and assist in compliance's, general risk assessments and other safety assessments to support Health, Safety and Environmental management
- ii. Responsible for Industrial Hygiene, Occupational Health, Waste Management and business process enhancements
- iii. Maintain EHS configurations and Maintain operational procedures around supported environments
- iv. Write, implement, and manage HSE Programs, Policies and Procedures
- v. Develop Safe Operating Procedure (SOP's) and Job Hazard Analysis

B 2.4.9 Technical Area Expert - Geotechnical (GT):

a. Educational qualifications specific to functional area

- a. B. Tech/B. E/ M. Tech in Civil, Rock/ Soil Mechanics and Geotechnical engineering or Engineering Geology or equivalent.
- b. Desirable – Relevant trainings/ courses of 6 months duration and above.

b. Experience specific to functional area must include

- a. Rock strength tests like Triaxial test, compressive strength test, Unified compressive strength etc
- b. Rock-quality designation (RQD) measured as a percentage of the drill core in lengths of 10 cm or more
- c. Investigation, analysis and modelling of geotechnical issues
- d. Geotechnical characterization of borehole core and domain modelling
- e. Impact testing, Scratch testing etc.
- f. Work closely with the Geology department to optimize safe, timely drill-hole results

c. Role and Responsibilities

- a. Slope design for open pits
- b. Headings, roadways and drifts for underground operations
- c. Panel and longwall design
- d. Tailing dam design
- e. Special constructions
- f. Geological Structure using precision measuring and testing instruments

B 3.0 Team Member (TM)

A provision of 'Team Member' has been included in the Scheme to provide opportunity to

- a. Experienced professionals in their own fields but lacking experience to enter the profession
- b. Existing experts to expand the field of association
- c. Persons who have completed 5 years after obtaining eligibility qualification but do not meet the experience requirements of TAE or EC
- d. This provision is available only for in-house experts

B 3.1 Expected functions of team member

The team member (TM) is expected to be involved both in field work as well as in the discussions amongst the PC and the TAEs. Since s/he is expected to be knowledgeable in area of expertise, emphasis should be given to

acquaint her/him on aspects, developing the management plans and finally in report writing for her/his part of association in the study.

B 4.0 Requirements of Experts/ Number of experts Required:

1. Project Coordinators must be in-house (full time employee).
2. Experts involved in preparing Mine Planning reports must be in-house (full time employee).
3. Any organization to be accredited must have one approved in-house Project Coordinator (Mining), one in-house TAE (Mining).
4. The other TAE may be in-house or empanelled. The organisation must cover remaining TAs as per the project requirement.

1.3 Coverage of the Scheme

This comprehensive document describes the scheme's requirements of human resource, Quality Management Systems and procedures to be followed, integrity of data, the assessment process, the accreditation criteria and other relevant requirements of the Scheme.

1.4 Updation of the Scheme

The accreditation Scheme is dynamic in nature. Modifications and updation will take place from time to time with the consultation and approval of Ministry. It ought to be for continually improving the delivery and effectiveness of the consultancy.

QCI/NABET reserves all rights to amend its procedures and fees etc., as it may deem fit. Applicants are requested to refer to the updated scheme on the QCI/NABET website (<http://nabet.qci.org.in/>) before applying for their accreditation/surveillance/re-accreditation/expansion or modification of scope.

2.0 Requirements for Accreditation

The accreditation requirements have been developed with a view to have system-based approach. The scheme specifies the following six essential requirements for accreditation:

- i. Human resource
- ii. Field investigation and laboratory arrangement
- iii. Suitable infrastructure, P & M, Software, office and Equipment
- iv. Quality Management System (QMS)
- v. Quality of reports
- vi. Organizational commitment
- vii. Compliance to conditions of accreditation/ improvements achieved

2.1 Human resource

Preparation of a Prospecting report and Mining Plan and mine design is essentially multi-disciplinary activity where inputs are required from experts having knowledge of the prospecting, mining and industry/sector for which reports are to be carried out.

2.1.1 Project Coordinator (PC)

The Project coordinator should have broad knowledge about the project. The role of the PC includes, but not be limited to, studying and understanding the project, setting-up the team, visiting the site with the team, evolving work schedule and ensuring that data are appropriately utilized for generating the comprehensive report, correct interpretation and correlation of the data, and maintenance of necessary records.

The essential requisites for PC include the following –

- Conceptual understanding of project requirements, process and outcome.
- Knowledge of the applicable Acts, Rules and Regulations governing the project.
- Domain knowledge
- Leadership quality in planning, selecting and guiding the team

Thus, for Project Coordinator emphasis is given on experience and maturity.

For educational qualification, minimum experience and expected functions of Project Coordinators (PC) for different schemes please refer to below mentioned respective appendices.

1. **Project Coordinator Prospecting**
2. **Project Coordinator Mining Plan**

2.1.2 Technical Area Expert (TAE)

TAEs are expected to identify and assess in their respective areas of expertise for adequate input for the report input and provide their expert inputs to the PC. TAEs should have -

- an in-depth knowledge in their respective areas of specialization
- understanding of the legislations and rules/regulations with respect to the technical areas
- the capability of identifying the need of the project,

For educational qualification, minimum experience and expected functions of Project Coordinators (PC) for different schemes please refer to below mentioned respective appendices.

1. **Technical Area Expert Prospecting**
2. **Technical Area Expert Mining Plan**

2.1.3 Team members (TM)

A provision of 'Team Member' has been introduced to:

- Encourage induction of new professionals experienced in their respective technical areas but lack direct related experience.
- Give opportunity to professionals in the field to build their competencies for handling different technical areas under the Scheme. This provision is available for in-house employees only.

NABET must be informed about involving professional as team member **prior to actually engaging** her/him for the job.

2.1.4 General conditions for experts

- a. Experts involved in preparing reports, namely PCs and TAEs, can be both, in-house (full time employee) or empanelled as per requirement.
- b. **In-house (IH) expert**- is a full-time employee working on the pay rolls of the applicant organization (AO)/accredited consultant organization (ACO) on regular basis (not on 'time to time basis' or on 'as an when required' basis) and gets appropriately paid as per her/his qualification and experience. All payments to an in-house expert are to be made through bank and are subject to TDS, as applicable.
- c. An expert working full time (as per the above definition) in an organization and not working in any capacity, part time or full time, in any other organization, may opt for a designation as '**Consultant**'. Such a person may be considered as an 'in-house expert' after necessary due diligence by NABET assessors during office assessment.
- d. **Empanelled expert**—an AO/ACO may also have 'empanelled' experts. An empanelled expert may be a 'freelancer' (not a full-time employee of any organization) or may be working with an NGO or Research organization/Academic institute. In the latter case, a No objection certificate (NOC) is to be obtained from the Registrar for a University, the Principal for a college and the head of organization for an NGO or a Research organization, as the case may be. The AO/ACO must have an MOU/written agreement with such experts. Details to be included in NOC and MOU/Agreement.
- e. A person working in an organization other than a NGO/Research/Academic Institute cannot opt as an empanelled expert for an AO/ACO. A full time Director in a Private/Public Limited company or a 'Partner' in a partnership firm is considered as a full-time employee of the organization/firm and is not eligible to opt as an empanelled expert under the Scheme. However, if a person is an Independent Director in a company, s/he is eligible to be an empanelled expert with a maximum of five AO/ACO. In such cases, relevant documentary evidence has to be furnished of his/her being an Independent Director in the company.
- f. An expert employed with an NGO or a Research/Academic institute may seek empanelment with a maximum 3 AO/ACO. (subject to condition 5.1.6 xi given below)

- g. All empanelled candidates/experts are required to furnish a Declaration of Association signed by the candidate/expert and countersigned by the authorized signatory of the AO/ACO. There should also be a MOU or Agreement between the empanelled candidate/expert stating the tenure and scope of association duly signed by both parties.
- h. Empanelled experts may contribute to the report as and when the work is assigned to them. However, their expected functions are same as those for IH experts.
- i. PCs, TAEs and TMs must maintain field log books of their visits to the site giving the observations, work done etc., for the stated activity.
- j. Submission of any false or misleading information in any of the above aspects, shall lead to the cancellation of approval of such experts and/or application/ accreditation of the organization.

2.2 Field investigation and laboratory arrangement

Collection of quality primary data is of crucial importance for preparing Prospecting, Mining Plan and Pre-Feasibility/ Feasibility reports. A good understanding of the project based on visit to the project site by approved PCs and TAEs is of utmost importance for developing the scope of study and for data collection.

The field investigation would include as per the Prospecting plan to cover following aspects:

- i. Exploration coverage
- ii. Borehole Density as per ISP norms
- iii. Coring and Non-Coring Drilling data
- iv. Geophysical logging
- v. RQD and Physico-Mechanical test
- vi. Survey Data
- vii. Hydrogeological Data

2.2.1 Laboratory arrangement for analysis and records of Results w.r.t.DATA

The AO/APA may have an in-house laboratory or agreement/MOU/Work Order with one or more external laboratories for work related to collecting data. If it engages more than one laboratory to cover its requirements of Prospecting report being carried out in different parts of the country, 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 for the Coal core analysis should be carried out in Govt/NABL accredited recognized laboratory. All analyses should be carried out as specified guidelines. The scope of accreditation/ recognition/certification should cover relevant parameters.

In specific cases, in-house laboratories of a university/ research institute may also be considered, and assessed by the Assessors to be appropriate for consideration under the Scheme.

Wherever such data generation includes collection of samples at the site by the AO/APA followed by analysis of the same at the laboratory, a detailed written down procedure should be available with the AO/APA in the QMS, including methodologies for collection, preservation and transportation of such samples to the laboratory. The procedure should specifically address as to who are to be involved in selecting sampling locations, parameters to be analysed for, collection, preservation/transportation etc. of samples.

2.3 Suitable infrastructure, P & M, Software, office and Equipments: May be referred at the website of QCI-NABET

2.4 Quality management system (QMS) -

One of the long-term objectives of this Scheme is to encourage the consultant organizations to adopt system-oriented approach for report preparation. Ideally, all Prospecting and Mining Plan Preparation Agency/ organizations should have their own report preparation manual as well which they may enrich from their learnings' over the years.

To facilitate the above, the applicant organization must maintain a Quality Management Systems (QMS) for the organizations. The QMS should be based on the current version of ISO 9001 standards. Although it is not mandatory that the organization should be ISO 9001 certified, the QMS must address the requirements of ISO 9001 and the specific requirements of the Scheme.

Prospecting Consultants are advised to establish and maintain a Quality Management System (QMS) for their organization as the same offers the following benefits;

- Creates a culture of doing things right, the very first time.
- Inculcates the culture of “saying, what we do and doing, what we say”
- Increases system orientation and reduces person specific dependence.
- Encourages uniform knowledge sharing and develops skilled work force.
- Helps develop team spirit
- Reduces duplicate work and minimizes wastages.
- Improves quality of work and brand image.

QMS should be based on ISO 9001 while addressing specific requirements of NABET Scheme. Please note that if an organization is already ISO 9001 certified, guidelines B1 to B4 and B10 are normally addressed (which may please be checked). It is then required to develop procedures for the NABET specific items i.e., B4 to B9 and integrate them with the system meaning that these should also come under the ambit of auditing, document control, management review etc.

If an organization has not been initiated into the system-oriented approach of working which is documented, audited and reviewed, it needs to acquaint itself of ISO 9001 requirements. Such organizations may initially take the help of a consultant but MUST NOT OUTSOURCE THE WORK OF ESTABLISHING THE QMS to him to meet the requirements of the NABET Scheme. Such an approach will be counterproductive as the system so developed is less likely to be owned by the working team and would remain a standalone document. THE BEST WAY IS TO GET THE GUIDANCE OF A CONSULTANT BUT LET THE WORKING TEAM ESTABLISH THE SYSTEM.

A QMS is supported by a 3-tier documentation system

- The Quality Management System manual
- Procedures
- Work instructions/forms/formats/checklists to implement the procedures

Guidelines for developing the QMS –

Quality policy shall be defined to address at least following:

- a. Be appropriate to the Organization’s purpose & context, and support its strategic direction
- b. Includes commitment for, continual improvement and satisfy applicable requirements
- c. Provide a framework for setting objectives and a review mechanism
- d. Be communicated and understood within the Organization
- e. Focus on customer satisfaction

Leadership and Planning Support & Operation- Shall give procedures for planning, operations & support for defined QMS including role and accountability of Top management.

- a. Accountability for Effective design and implementation of QMS is defined
- b. Use of process approach and risk-based thinking is evident
- c. System for effective communication is defined and implemented
- d. Risk Management process is established, that is linked to organizations context
- e. Interested parties for organization’s QMS are identified and their inputs are captured to improve QMS
- f. System for change management is defined and implemented
- g. Shall determine, provide and maintain the infrastructure necessary for its operation and processes.
- h. Shall plan implement and control the processes needed to meet the requirements as per defined QMS

Control of documented information shall give procedures for:

- a. Uniquely identifying documents and records
- b. Approving documents prior to issue
- c. Distribution, access, retrieval and use

- d. Control of changes
- e. Reviewing and updating of documents, as required
- f. Retention and Disposition
- g. Ensuring quick availability of relevant revision of the document
- h. Storage, protection and retrieval of documented information and handling of outdated/superseded documents

Performance Evaluation and Review shall give procedures for:

- a. Fixing Key Performance Indicators (KPI) of experts involved and annual appraisal of the same
- b. Assessing / ensuring the quality of Geological reports prepared
- c. Periodic and systematic audit, both internal and external and follow up action for closure of Non-conformances (NCs)/ observations.
- d. Management review giving periodicity and issues to be taken up including feedback from project proponent on quality of Geological reports prepared and necessary follow up action.

Actions taken to address Non- conformances– shall give procedures for:

- a. Analysing the NCs of internal audits as well as external audits including NABET to identify the causes and the 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. Review the effectiveness of corrective actions taken
- f. Review risks, opportunities and overall QMS if required

Competence management of staff, experts and other persons related to scope of QMS– shall give procedures for:

- a. Define and provide the necessary persons needed for effective implementation of QMS
- b. Define the necessary competence (Education, experience and skills) for staff, experts and other persons whether in house or contractual, impacting the QMS of the organization,
- c. Assessing the work done by the prospective experts prior to their retention
- d. Framing the “terms of reference” for retention of the expert, including preparation of the report for her/his portion of the work,
- e. Assessing performance of the work done by the experts for the organization,
- f. Wherever applicable, take appropriate actions to acquire necessary competence and evaluate the effectiveness of actions taken
- g. Maintain appropriate documented information as evidence of competence.

Collection and measurement of primary data

‘Primary’ data will cover all forms of data collected through the field work, for assessing the project area. The procedures for collecting primary data should include:

- a. Site visits by the Prospecting team to familiarize about site conditions to plan for the Prospecting
Selecting the number and location of monitoring stations and the type of sampling and parameters to be monitored
- b. Interpretation of data including statistical analysis to arrive at meaningful information
- c. Specifying as appropriate for the scope of Prospecting methodologies to be followed and interpretation of the same.

Collation, synthesis and interpretation of secondary data –

Authenticity, credibility, appropriateness and relevance of the secondary data are the cornerstones of a good Geological report. Secondary data shall be used to supplement the primary data and under no circumstances this shall be used as a replacement of primary data. This procedure should include information on:

- a. When secondary data would be resorted to
- b. Relevant secondary data to be collected as appropriate for Prospecting study requirements
- c. Sources of secondary data ensuring their reliability and age
- d. Validation of important secondary data by cross verification at the site or from other sources
- e. Ensuring the brevity of the data (eliminating irrelevant information)

It is a good practice to give reference to the source when secondary data is used.

Control of externally provided process, products and services

Organization shall give procedure to apply necessary controls for the externally provided processes, products and services.

The manual should mention procedures for:

- a. Defining the conditions when outsourcing would be resorted to
- b. Assessing the capability of the agency 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. Timely review, monitor and control on outsourced services as per defined QMS

Laboratory work for Prospecting data – should give procedures for:

- a. Assessing a laboratory for its capability to analyze the parameters required for collection of surface and sub surface Prospecting data and studies
- b. Identifying the scope of work to be assigned to the lab and those to be done by the Prospecting Consultant Organization
- c. Collection, preservation and transportation of samples from site to the laboratory
- d. Quality assurance by the team of the primary data collection work including supervision at site
- e. Type of records to be maintained by the laboratory and the team on the baseline data collection work

Customer satisfaction & Complaints—shall give procedures for

- a. Monitor customers perceptions of the degree to which their needs and expectations are fulfilled.
- b. Informing the clients about the provision of complaints
- c. Accepting complaints
- d. Handling and disposal (including authority and responsibility) of the same within reasonable time
- e. Maintaining records of complaints
- f. Ensuring implementation of correction and corrective actions

2.5 Quality of Prospecting (GR), Mining Plan and Pre-feasibility/ Feasibility reports

One of the important objectives of the Scheme is to establish the quality of report prepared by Consultant Organizations, give feedback to them on areas of improvement so that there is consistent report quality. The assessment criteria include accuracy of site description, quality of data, analysis and interpretation of the data.

2.6 Organizational commitment

The objective of the Scheme is to identify credible Prospecting and Mining Plan Preparation Agencies organizations who should prepare best quality Prospecting (GR), Mining plan and Pre-feasibility/ Feasibility report in the country. This will be possible when there is a commitment from the accredited agencies towards comprehensive report. This has been factored in the Scheme and for Re-accreditation assessment compliance to the accreditation condition by the accredited agency/ organization since receiving accreditation is also taken into account (see Section 6 below).

3.0 ACCREDITATION CYCLE

Accreditation Cycle in this Scheme is for 3 years and comprises 3 types of assessments:

Initial accreditation (IA): In the IA, the potential of the applicant organization is assessed and based on that accreditation is granted. On successful completion of the initial assessment, an applicant organization is given accreditation for 3 years, subject to a surveillance assessment after 18 months.

Surveillance assessment (SA): This is to assess performance after IA. The basic objective is to judge to what extent the performance along with compliance to the conditions of accreditation has been met. SA falls due 18 months after IA.

Re-accreditation (RA): Following the principle of 'consistency', in RA the emphasis is laid on the consistent quality achieved by the ACO during the period of accreditation. Since, the ultimate objective of the Scheme is to improve the quality of Mining plan/ Geological Reports being prepared in our country, weightage accorded to it gradually increases from IA to SA to RA.

On completion of three years from initial accreditation, the organization is re-assessed broadly as per the process followed for Initial Assessment with emphasis on improvements achieved.

4.0 ACCREDITATION PROCESS

The accreditation procedure for IA, SA and RA includes three processes:

- A. Application assessment process
- B. Office assessment process
- C. Decision making process

4.1 Application assessment process

There are separate application forms for IA, SA, RA, expansion of scope and supplementary assessment for replacing approved experts who may have left the organization. These can be downloaded from the NABET website [www.http://nabet.qci.org.in/](http://nabet.qci.org.in/).

Applicants are advised to go through the accreditation scheme carefully prior to preparing/submitting their application. They must complete the Self-assessment to know if the applications are ready for submission and whether they are ready for NABET assessment. This would greatly reduce processing time benefiting both, the Applicant organization (AO) /Accredited Consultant Organization (ACO) and NABET. Applications are to be submitted in soft format only. In case, NABET requires hard copy of a document, the same is intimated to the AO/ACO.

Application for SA must be submitted three months prior to the when SA is due i.e. on completion of 16 months after date of office assessment for IA. Similarly, RA application should be submitted three months prior to expiry of accreditation period i.e., on completion of 34 months after date of office assessment for IA.

NABET application process is on-line and procedure to be adopted for applying on-line will be posted on the QCI/NABET website.

Assessment of the applications is carried out in 3 stages -

Stage I- Checking completeness of the application by NABET secretariat

Applications submitted by an AO/ACO must be complete in all respects and is inclusive of all supporting documents mentioned in the checklist of Application Form (for IA, SA, RA) of this Scheme.

NABET secretariat checks if the

- (a) Application is complete in all respects,
- (b) Information submitted is in relevant formats and
- (c) Application is accompanied by the requisite fee.

In case an application is grossly incomplete in respect of candidates/experts, laboratory arrangement etc., NABET secretariat informs the AO/ACO of the inadequacies. Such applications are processed further once the inadequacies are addressed. For other applications, the NABET secretariat forwards the application to the principal assessor (see below) with its observations for technical scrutiny. The AO/ACO is advised to carefully study the requirements before filling in the application.

Stage II - Technical review of documents

Assessors with vast experience in the relevant fields conduct technical review of documents of the applications submitted to NABET. For each application two assessors are assigned. The Principal Assessor (PA) carries out the Stage II assessment supported by the NABET staff. The PA is joined by a Co-Assessor (CA) for the office assessment (see below). In case the number of experts involved is large, NABET may assign more CAs to

expedite the process. After Stage II assessment the PA may raise Non-Conformances (NCs) and/or Observations (Obs.) pointing out the areas where the application does not meet the requirements of the Scheme. After the NCs and Obs. are successfully closed by the AO/ACO, further processing of the application i.e. the office assessment is taken up.

Stage III - Office assessment

It involves assessment of an application in the following six aspects:

- a. Quality and performance of personnel
- b. Infrastructure, P & M, adequate Software (SW) and Hardware (HW)
- c. Field investigations and laboratory systems to ensure data integrity
- d. Quality Management System
- e. Quality of Prospecting Work, Mining Plan and Pre-feasibility/ Feasibility report data
- f. Organizational evaluation/commitment
- g. Compliance to condition of accreditation/ improvements achieved(for SA and RA)

The assessment process is primarily evidence based and objective in nature. After obtaining accreditation, an ACO is expected to strictly abide by the conditions of accreditation. Efforts towards capacity building and commitment to quality work are given due weightage.

Normally, 10 days prior notice is given to the AO/ACO for office assessment. However, NABET reserves the right to visit the office/site un-announced, if it is deemed necessary.

4.2 Decision making process

On completion of office assessment process, a joint report is prepared by the PA and CA (or CAs) and sent to the NABET secretariat for further processing. The PA is responsible for the final report. NABET secretariat after checking the completeness of the report, obtains clarifications/additional information, if required, from the AO/ACO/Assessors. The case is then put before the accreditation committee by the NABET secretariat for its consideration, review and decision on accreditation. The final outcome is thereafter uploaded on QCI/NABET website <http://nabet.qci.org.in/> accreditation becomes effective from the last date of the office assessment.

4.3 Time frame for application and accreditation processes

Completion of application, assessment and accreditation processes depends on the following:

- a. Receipt of complete information at NABET for Stage I and II assessments along with necessary documents and closure action of NCs/Obs., as applicable, for IA, SA and RA applications.
- b. Timely submissions of such information by AO/ACO within the time frame stipulated by NABET vide section 10 for SA and RA. For initial accreditation AOs are requested to submit the required details as early as possible.
- c. Timely raising of queries by NABET within 15 days for Stage I and 1 month for Stage II.

Subject to the above, all efforts are made by NABET to complete the process of granting accreditation within 3 months of submission of complete information by AO/ACO.

4.4 Accreditation process outcome

The salient outcomes from accreditation process are as follows:

- a. **Accredited** – in case the applicant clears the assessment and accreditation processes successfully, the result is posted on the QCI/NABET website and the AO/ACO is also informed separately.
- b. **Not approved** – if the AO/ACO fails to obtain 40% marks in the office assessment or does not fulfil any other requirements of the Scheme, the application is not approved and accreditation is not granted.
- c. **Cancellation** - in case an ACO does not fulfil conditions of accreditation or does not submit complete application for SA or RA in time, a reminder is given to do the same in the next 15 days. If complete application is not submitted even after 15 days, a final notice is served for responding giving another 15 days' time.

In the event of non-compliance after the final notice as well, the accreditation granted to the ACO is cancelled and its' name is removed from the list of accredited consultants. In case it wishes to get considered again under the Scheme, it is required to submit a fresh application with requisite fee. Fresh assessment is then carried out as per IA norms

- d. Incomplete applications** – If an AO submits an incomplete application in which requisite details are not provided or it does not meet the requirements of the Scheme in respect of eligible candidates for Project Coordinator (PC) and Technical Area Expert (TAE), QMS, Laboratory details etc., the same is put in the 'incomplete applications' list. NABET intimates the AO of the deficiencies in the application. If it is an application for IA, the same is processed further once all requirements are fulfilled.

4.5 Category of accredited consultants

Prospecting and Mining Plan Preparation Agency/ organizations are granted accreditation in categories 'A' or 'B'. Experts are also approved in categories A or B under this Scheme.

If an approved category-A expert scores less than 50% marks in SA, s/he is issued an alert and her/his approval status may be changed to Category-B. A category-B expert is upgraded to category-A if -

- S/he meets the experience requirements stated in the Scheme/has addressed the shortfalls of earlier assessment in the re-application
- Scores 60% or more in SA/RA/Supplementary Assessment and
- Recommended for up-gradation by the assessors on fulfilment of point a, b above and final decision of Accreditation Committee.

5.0 GRANT OF ACCREDITATION

Results of the accreditation committee meeting are uploaded on the QCI/NABET website within a month of the AC meeting in which the relevant case is discussed. A formal letter from NABET is sent within one month from the date of approval by the accreditation committee mentioning the approved sectors with category, experts approved with category, detailed conditions of accreditation and NCs & Obs., if any. NABET's certificate of accreditation is issued on successful closure of all NCs and Obs.

5.1 Maintaining Accreditation

Accreditation of Prospecting and Mining Plan Preparation Agency is subject to compliance to the requirements of the QCI – NABET Scheme. These include, but are not limited to:

- Implementation of systems/procedures documented in the QMS manual of the ACO including the corrective and preventive actions for the NCs and Obs. of IA, SA, RA, as applicable.
- ACOs are encouraged to prepare their own 'Report preparation manual' detailing the procedures followed right from the time of placing quotes for the work to completion of the project.
- Timely replacement of experts - in case any approved PC or TAE leaves the ACO, s/he needs to be replaced within a specific time.
- Intimation of changes – in case of any change in the organization related to systems, procedures, laboratory and other facilities, the same is to be intimated to NABET within one month.
- Payment of fees, as applicable, to NABET as per the terms of accreditation.
- At the beginning of the reports prepared by the ACO a declaration is to be given by the ACO mentioning the names of the PC and TAEs involved. This form must be duly signed by them and countersigned by the CEO of the organization.
- Familiarity with the site conditions is a fundamental requirement, concerned PC and relevant TAEs are expected to visit the site for appropriate duration prior to commencing the work as well as during the period of primary data collection and for ground validation of secondary data.
- All PCs and TAEs and team members involved in the project should maintain a field logbook with noting done at the site. NABET's assessors may verify these during the office assessment. It is worthwhile to maintain other documentations on the expert's site visits viz., expert's report, and authorization of tours, travel documents etc.
- The ACO is to strictly avoid practices/actions mentioned in Section 5.3 to ensure that accreditation granted to it is not cancelled.
- The ACO is to maintain the following records (in soft or hard format)
 - A register of attendance of employees involved in project.
 - Names of the experts (both in-house and empanelled) involved in projects handled by the consultant organization.

- iii. Details of involvement of empanelled experts, in terms of time devoted to various projects.
- iv. Updated declaration of empanelled experts indicating the number of organizations they are associated with.
- v. All documents related to laboratory work and implementation of QMS

5.2 Changes after accreditation

Since accreditation of a consultant organization is based on the experts approved, an ACO must inform NABET if an approved expert leaves the organization and propose a replacement in accordance of the Scheme's requirements within one month. NABET would arrange assessment of such candidate/s either during the next assessment due or earlier. Failing to propose a replacement on time is a non-conformance, viewed seriously and may also result in cancellation of accreditation.

A new candidate may be proposed as a PC or a TAE for assessment at any time. However, for a person already assessed and not approved may be proposed only after a gap of 3 months enabling her/him to address the shortfall.

5.3 Suspension/cancellation/debarment of accreditation

NABET may suspend or cancel an accreditation or even debar an organization on account of any or more grounds during accreditation process or after, but not limited, to the following:

- a. Non-compliance or violation of the NABET's requirements and conditions of accreditation and deviation from facts as stated in application and enclosures
- b. In case an approved expert leaves the organization, the ACO is required to inform NABET of the same within one month and get a replacement approved within the next two months.
- c. Submission of false or misleading information in the application or in subsequent submissions
- d. Improper use of NABET's accreditation mark, letter of accreditation from NABET or the QCI/NABET logo
- e. Carrying out changes in Project coordinators/experts without NABET's approval
- f. Failure to report any major legal (mandatory compliance) changes and evident conflict of interest
- g. Using fraudulent practices by the ACO in respect of its submission/interaction with NABET which include, but not limited to, deliberate concealment and/or submission of false or misleading information, suppression of information, falsification of records or data, unauthorized use of accreditation.
- h. Violation of the Code of Conduct for the consultant organizations.
- i. Any other condition deemed appropriate by NABET.

The decision for the suspension/cancellation/debarment is taken by the NABET accreditation committee.

A clarification may be sought and put up to the accreditation committee for final decision on the matter.

5.4 Actions for misconduct/fraudulent activities

Submission of false or misleading information or use of fraudulent practices, an AO/ACO may be disqualified for up to one year, to be decided by the accreditation committee depending on the seriousness of the action. Such AO/ACO will be able to re-apply only after expiry of the disqualification period. The application is to be accompanied with an undertaking from the CEO of the organization that, if such practices are repeated, it will render the organization ineligible to participate in the NABET accreditation scheme any further. The same approach is applicable for individual experts (PCs and TAEs) as well.

5.5 Confidentiality

All information, documents and reports submitted by an AO/ACO to NABET are utilized by the NABET, assessors, members of accreditation and technical committees for the purpose of assessment and accreditation. These may also be shared with MoC, Govt. of India and other members of the International Personnel Certification Association. However, the identity of the accredited consultant organizations would be masked for sensitive information related to business whenever it is called for/appropriate. In case an AO/ACO wants the information to be kept confidential, a communication must be sent to NABET citing reasons for the same. NABET reserves the right to take appropriate decision in this regard. NABET also reserves the right of taking appropriate action against an ACO for deliberate breach of confidentiality.

The ACO is required to have adequate arrangements consistent with applicable laws to safeguard confidentiality of all information provided by its clients. These arrangements are extended to include organizations or individuals acting on its behalf and as its representatives.

6.0 GRIEVANCE REDRESSAL MECHANISM

There are two methodologies available under the Scheme for addressing the grievances of AOs and ACOs—

- a. Review of Decisions
- b. Appeal

6.1 Review of decisions

In case an AO/ACO wishes for review/reconsideration of any decision taken by NABET, they may send a request for same to NABET.

The following procedure is applicable:

- a. Request received from AO/ACO by NABET is recorded in the same serial as date of receipt
- b. Request must mention specific complaints (not generic in nature) and supported by documentary evidence.
- c. Anonymous/ pseudonymous requests are not be entertained.
- d. Only substantial errors/mistakes on procedural matters are taken up for consideration. Re-assessment of any aspect of assessment or request for deviation from the Scheme cannot be considered.
- e. Such 'Reviews' are taken up for consideration in a meeting of the relevant Accreditation Committee as early as possible.
- f. Agenda of such meetings is intimated to the AO/ACO.
- g. AOs/ACOs making the request may present their case in person to the AC, if they so desire.
- h. Decision of the AC is intimated to the concerned organizations as well as posted on QCI website.

6.2 Appeal

An AO/ ACO may apply for Appeal in case it is not satisfied with the 'Review' decision.

An 'Appeal' must include the specific issues on which the appellant is filing the appeal accompanied by supporting documents, fees for appeal. The following information is to be provided while submitting the appeal -

Sl.No.	Specific issue/s submitted in Review	Supporting documents submitted in Review	Decision of Review Committee	Additional/ new issues submitted in Appeal now	New supporting documents added now
1	-	-	-	-	-

The Following procedure is applicable:

- i. Formation of 3-member Appeals Committee by NABET, chaired by a member of NABET Board and comprising one more member from NABET Board and one subject specialist.
- ii. The Appeals Committee proposed is approved by the Chairman, NABET Board.
- iii. The documents received from the appellant are submitted to the members of the Appeals committee by NABET Secretariat.
- iv. Process of hearing by the committee - the committee fixes a date for the hearing which is intimated to the appellant by NABET secretariat. A reasonable notice period is given for the appellant to appear in the hearing. The committee gives due opportunity to the appellant and the NABET secretariat to present their cases. The committee gives its decision after hearing both the sides and based on deliberation within it.
- v. The decision of the Appeals committee is intimated to the appellant by NABET Secretariat.

7.0 CODE OF CONDUCT

All ACOs 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 accreditation.

7.1 Use of QCI and NABET logo

- a. The QCI and NABET accreditation logo is the property of NABET and its use is controlled. Compliance to the guidelines and conditions is required for using NABET Accreditation Mark

- i. Whenever a Prospecting and Mining Plan Preparing Agency is accredited, NABET shall inform the relevant entity about the conditions of the use of accreditation mark.
- ii. Accreditation mark can be used by NABET accredited consultant organizations only.

b. Guidelines and conditions of use of accreditation mark

- i. Accreditation mark as appears on NABET Accreditation certificates can be printed as coloured image or black and white
- ii. Accreditation mark shall not be used to suggest any approval or sponsorship of NABET other than the organization accredited.
- iii. Accreditation mark shall not be used in any way that misleads the reader about the accreditation status of the consultant organization
- iv. Accreditation mark is not transferable and is to be used only by the accredited consultant organization as described in its application.
- v. Accredited consultant organization upon suspension or withdrawal or expiry of its accreditation (however determined), shall discontinue the use of NABET accreditation mark on all media of communications by the organization including promotional material, letter head, newsletters, brochures, annual reports, business cards, websites and advertisements etc.
- vi. NABET reserves the right to change the conditions as and when considered necessary and the same shall be communicated to consultant organization.
- vii. Use of accreditation mark is applicable for consultant organizations only and not for individual expert/s.

c. Verification

- a. NABET may, at its discretion, carry out verification of proper use of the accreditation Mark.
- b. If any misuse of the accreditation is noticed, NABET initiates actions as per procedure for suspension and/or cancellation of its accreditation.

7.2 Undertaking by consultant organization

The consultant organization undertakes to:

- a. Act professionally, accurately and in an unbiased manner.
- b. Be truthful, accurate and fair to the assigned work, without any fear or favour.
- c. Judiciously use the information provided by or acquired from the client in carrying out the project and to maintain the confidentiality of information received or acquired in connection with the assignment.
- d. Use the expertise of only approved experts of relevant category in the preparation of Mining Plan/ Geological Reports.
- e. Avoid and/or declare any conflict of interest that may affect the work to be carried out.
- f. Not accept any favour from the clients, or their representatives.
- g. Not act in a manner detrimental to the reputation of any of the stakeholders including NABET and the client.
- h. Co-operate fully in any formal enquiry procedure of NABET.

Prior to accreditation, the AO signs the “Code of Conduct for Prospecting and Mining Plan Preparing Agency” and sends it to the NABET secretariat.”

[F. No. 34011/28/2019-CPAM]

BHABANI PRASAD PATI, Jt. Secy.

Note:- The principal rules were published in the Gazette of India, Part II, Section 3, Sub-section (i) *vide* number G.S.R.1398, dated the 26th November, 1960 and lastly amended *vide* number G.S.R. 710(E), dated the 8th October, 2014.