

# The Atomic Minerals Concession Rules, 2016

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# The Atomic Minerals Concession Rules, 2016<sup>1</sup>

In exercise of the powers conferred by Section 11-B of the Mines and Minerals (Development and Regulation) Act, 1957 (67 of 1957), the Central Government hereby makes the following rules, namely—

## CHAPTER I PRELIMINARY

**1. Short title and commencement.**—(1) These rules may be called the Atomic Minerals Concession Rules, 2016.

(2) They shall come into force on the date of their publication in the Official Gazette.

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

- (a) “Act” means the Mines and Minerals (Development and Regulation) Act, 1957 (67 of 1957);
- (b) “atomic minerals” means minerals specified in Part B of the First Schedule to the Act;
- (c) “Beach Sand Minerals” means economic heavy minerals found in the teri or beach sands, which include ilmenite, rutile, leucosene, garnet, monazite, zircon and sillimanite;
- (d) “Board” means the Atomic Energy Regulatory Board constituted under Section 27 of the Atomic Energy Act, 1962 (33 of 1962);
- (e) “Department” means the Department of Atomic Energy, in the Central Government;
- (f) “Directorate” means the Atomic Minerals Directorate for Exploration and Research under the Department;
- (g) “illegal mining” means any reconnaissance or prospecting or mining operation undertaken by any person or a company in any area without holding a mineral concession as required by sub-section(1) of Section 4 of the Act.

*Explanation.*—For the purposes of this clause,

- (a) violation of any rules, other than the rules made under Section 23-C of the Act, within the mining lease area by a holder of a mining lease shall not be construed as illegal mining;
- (b) any area granted under a mineral concession shall be considered as an area held with lawful authority by the holder of such mineral concession, while determining the extent of illegal mining;

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1. Ministry of Mines, Noti. No. G.S.R. 677(E), dated July 11, 2016, published in the Gazette of India, Extra., Part II, Section 3(i), dated 11th July, 2016, pp. 36-65, No. 471.

- (h) “prescribed substances” means minerals included in the list of prescribed substances under the Atomic Energy Act, 1962 (33 of 1962);
- (i) “railway” and “railway administration” have the meanings respectively assigned to them in the Railways Act, 1989 (24 of 1989);
- (j) “run-of-mine” means the raw unprocessed or uncrushed material in its natural state obtained after blasting or digging or dredging from mineralised zone of mining lease area;
- (k) “Schedule” means a Schedule to these rules;
- (l) “section” means a section of the Act;
- (m) “threshold value” means the grade of atomic mineral, specified as percentage of weight of the prescribed substances contained in the ore, to <sup>2</sup>[as specified] in Schedule A as the threshold value for the particular atomic mineral occurring as such or in association with one or more minerals; and
- (n) “Total Heavy Mineral” means the minerals which comprises of Ilmenite, Rutile, Zircon, Monazite, Sillimanite, Leucoxene and Garnet.

(2) The words and expressions used in these rules but not defined herein shall have the same meanings as assigned to them in the Act, the rules made thereunder or the Atomic Energy Act, 1962 (33 of 1962), as the case may be.

**3. Applicability.**—(1) These rules shall apply only to mineral concessions relating to atomic minerals occurring as such or in association with one or more other minerals, provided the grade of such atomic minerals is equal to or more than the threshold value.

(2) Mineral concessions relating to atomic minerals where the grade of atomic mineral contained in the ore is less than the threshold value will be governed, *mutatis mutandis*, by the provisions of the Minerals (Other than Atomic and Hydrocarbons Energy Minerals) Concession Rules, 2016, in force.

(3) A determination regarding applicability of these rules pursuant to assessment of threshold value against the evidence of mineral contents shall be made by the Directorate in accordance with the provisions of sub-rule (5) of Rule 4 or sub-rule (3) of Rule 6, as the case may be.

(4) If one or more atomic minerals occur in association with other minerals but the grade of atomic minerals is less than the threshold value, then any atomic minerals resulting from mining operations, processing or beneficiation shall be handled and disposed of in accordance with directives issued by the Department regarding conservation of atomic minerals and the directives issued by the Atomic Energy Regulatory Board regarding radiological safety.

**4. Prospecting for atomic minerals under second proviso to Section 4.**—(1) The agencies permitted under the second proviso to sub-section (1) of Section 4 of the Act may carry out prospecting operations for atomic minerals without

2. *Subs.* for “to be specified and notified by the Department from time to time” by G.S.R. 126(E), dt. 19-2-2019 (w.e.f. 19-2-2019).

a prospecting licence and such prospecting operations shall be carried out in compliance with Schedule B:

Provided that where prospecting operation is to be undertaken under this sub-rule, the agencies desirous of undertaking the prospecting operation shall submit a request to the State Government along with particulars of the area and the period required for prospecting.

(2) The State Government shall within thirty days of receipt of the request issue a notification for the purposes of sub-rule (1) in the Official Gazette with prior approval of the Directorate.

(3) Upon issuance of the notification, the State Government shall not grant any mineral concession to any other person or agency for an area or a part thereof in relation to which a notification has been issued.

(4) Upon completion of prospecting operations under sub-rule (1), the agency conducting the prospecting operations shall submit a geological report of its findings to the Department and the State Government in the format specified in the Schedule B and no such report is required if the prospecting operation is carried out by the Directorate.

(5) Upon receipt of a geological report under sub-rule (4), the Directorate shall compare the grade of atomic minerals in the prospecting area with the threshold value and,—

- (a) if the grade of atomic minerals is less than the threshold value, the Directorate shall provide a written intimation, along with a copy of the geological report, to the State Government, which may grant mineral concessions over such area in accordance with Section 10-B and Section 17-A of the Act, as the case may be, and the rules made thereunder;
- (b) if the grade of atomic minerals is equal to or above the threshold value, then a mining lease shall be granted by the State Government only in accordance with these rules:

Provided that the Directorate shall also subject the geological reports for prospecting operations generated by the Directorate, to a similar scrutiny as above and hand over the data to the State Governments for action contemplated under clauses (a) and (b).

(6) If the Directorate finds the geological report submitted under sub-rule (4) to be insufficient for making a determination under sub-rule (5), it may seek additional information or direct further exploration and submission of findings with regard to such additional data as may be specified by the Directorate and upon receipt of such findings and data, the Directorate shall take action as specified in sub-rule (5).

(7) The State Government may revoke the notification granted under sub-rule (1), if the Directorate communicates in writing that the prospecting operations have been completed.

## CHAPTER II

## DISCOVERY AND GRANT OF MINERAL CONCESSIONS

**5. Grant of mining lease at the instance of Department.**—(1) Where on an examination of a prospecting report prepared in conformity with the parameters specified in Schedule B by the Directorate, in accordance with the provisions of sub-rule (5) of Rule 4, indicates the grade of atomic minerals to be equal to or above the threshold value, the State Government shall,—

- (a) identify and demarcate the area where a mining lease is proposed to be allocated into forest land, land owned by the State Government, and land not owned by the State Government;
- (b) submit a proposal for grant of mining lease over the area identified and demarcated under clause (a) with the precise areas along with survey numbers, to the Central Government with a request to nominate a Government company or corporation owned or controlled by the Government for the grant of such mining lease:

Provided that where the Central Government is of the opinion that mining in such identified area is not required to be undertaken by a Government company or corporation owned or controlled by the Government and subject to provisions of Rule 6, it may, by order in writing, declare so and in such cases, the provisions of sub-rule (2) shall apply mutatis mutandis, and the State Government may grant a mineral concession over such area in accordance with Section 10-B or Section 11 or Section 17-A of the Act and the provisions of the Minerals (Evidence of Mineral Contents) Rules, 2015, the Mineral (Auction) Rules, 2015, the Mineral (Mining by Government Company) Rules, 2015 and the Minerals (Other than Atomic and Hydro Carbons Energy Minerals) Concession Rules, 2016, made under Section 13:

Provided further that atomic minerals discovered during the mining operations shall be handled and disposed of in accordance with the directives issued by the Department regarding conservation of atomic minerals and the directives issued by the Board regarding radiological safety.

(2) Where on an examination of a prospecting report prepared in conformity with the parameters specified in Schedule B by the Directorate, in accordance with the provisions of sub-rule (5) of Rule 4 indicates the grade of atomic minerals to be less than the threshold value, the State Government may grant a mineral concession over such area in accordance with the provisions of Section 10-B or Section 11 or Section 17-A of the Act and the provisions of the Minerals (Evidence of Mineral Contents) Rules, 2015, the Mineral (Auction) Rules, 2015, the Mineral (Mining by Government Company) Rules, 2015 and the Minerals (Other than Atomic and Hydro Carbons Energy Minerals) Concession Rules, 2016, made under Section 13:

Provided that atomic minerals extracted during the mining operations shall be handled and disposed of in accordance with the directives issued by the Department regarding conservation of atomic minerals and the directives issued by the Board regarding radiological safety.

**6. Mining by a Government company or corporation owned or controlled by the Government.**—(1) In response to the request made by the State Government under clause (b) of sub-rule (1) of Rule 5, the Department shall intimate to the State Government in writing of the prospective lessee, along with a confirmation regarding grade of atomic minerals in such area being equal to or above the threshold value.

(2) The intimation referred to in sub-rule (1) shall be considered to be evidence to show the existence of mineral contents for atomic minerals in the area for the purposes of clause (b) of sub-section (2) of Section 5 and a copy of such intimation shall also be sent to the prospective lessee.

(3) Notwithstanding anything contained in sub-rules (1) and (2), the Department shall reserve its rights, wherever required, to additionally notify region and deposit-specific threshold values in the case of uranium and thorium bearing minerals, and authorise the Ministry of Mines in the Central Government and the State Government concerned, subject to terms and conditions specified by the Department, to grant mining lease for one or more specific mineral present associated with atomic minerals.

(4) The prospective lessee shall within two months from the receipt of a copy of the intimation under sub-rule (2) shall submit an application to the State Government for grant of a mining lease in the format specified by the Department along with an application fees of ten thousand rupees per square kilometre.

(5) The State Government shall within ninety days of receipt of a duly completed application under sub-rule (4), communicate to the prospective lessee to submit an approved mining plan and other necessary clearances from the concerned Government agencies as required, for grant of mining lease:

Provided that for the private lands not owned by the prospective lessee which are available within the area demarcated by the State Government under clause (a) of sub-rule (1) of Rule 5, the State Government shall not insist for furnishing consent of the concerned private land owners or obtaining the surface rights or the like, etc., during the issuance of order under sub-rule (5):

Provided further that the State Government shall obtain an undertaking or an affidavit from the prospective lessee stating that consents of the private land owner or surface rights will be obtained and furnished in a phased manner to the State Government prior to entering into the private lands for mining, and no mining shall be carried out in private lands not owned by lessee without obtaining the consents or surface rights.

(6) Upon receipt of such communication from the State Government under sub-rule (5), the prospective lessee shall—

- (a) prepare a mining plan in accordance with provisions of Chapter IV and submit the same for approval of the Directorate for approval under clause (b) of sub-section (2) of Section 5, within a period of twelve months from the date of issuance of the communication from the State Government under sub-rule (5);

- (b) provide a performance security to the State Government in the form of a bank guarantee as per the format specified in Schedule C or as a security deposit, for an amount equivalent to 0.50 per cent of the value of estimated resources, which performance security may be invoked by the State Government as per the terms and conditions of Mine Development and Production Agreement and the mining lease deed;
  - (c) the performance security shall be adjusted every five years so that it continues to correspond to 0.50 per cent of the reassessed value of estimated resources;
  - (d) obtain approval or permit or no-objection or the like from the concerned Government authorities as may be required under applicable laws for commencement of mining operations;
  - (e) sign an Mine Development and Production Agreement with the State Government as per the format specified by the Central Government after compliance of conditions specified in clauses (a), (b), (c) and (d) of this sub-rule; and
  - (f) meet other conditions as may be specified by the State Government with the prior approval of the Department.
- (7) The prospective lessee shall submit the documents in support of the fulfilment of the conditions specified in sub-rule (6), and within ninety days of receipt of such documents the State Government shall issue an order to the prospective lessee for granting the mining lease.
- (8) The prospective lessee shall execute a mining lease deed within ninety days of receipt of the order of grant of lease as in sub-rule (7), and if no such deed is executed within the said period due to any default on the part of the prospective lessee, the State Government may revoke the order granting the lease and in that event the fee paid under sub-rule (4) shall be forfeited to the State Government.
- (9) The mining lease deed shall be subject to the following conditions, namely—
- (a) the mining lease deed shall be in the format specified in Schedule D;
  - (b) the area of such mining lease shall be the same as specified by the State Government as in clause (a) of sub-rule (1) of Rule 5 and no change in area shall be made by the State Government without the prior approval of the Department:  
Provided that in the interest of development of atomic minerals, a Government company or corporation may acquire, in respect of one or more atomic minerals, one or more mining leases covering an area in excess of the area specified in clause (b) of sub-section (1) of Section 6, if so permitted by the Department.
  - (c) in case the atomic minerals in grade equal to or more than the threshold value exists in association with other minerals, then the mining lease shall be granted for all such minerals including the atomic minerals to the same lessee.



(10) The date of the commencement of the period for which a mining lease is granted shall be the date on which a duly executed mining lease is registered.

(11) All mining leases granted under these rules, shall be granted for a period until the entire reserves of such minerals in the mine is exhausted:

Provided that an existing mining lease as on the date of coming into force of these rules granted to a Government company for extraction of prescribed substances including uranium or thorium, shall be deemed to have been granted for a period until the entire reserves of such minerals in the mine is exhausted.

(12) The State Government shall not include any new minerals found in an existing mining lease area granted to a Government company or corporation owned or controlled by the Government:

Provided that for such inclusion of a new mineral, the lessee shall obtain the permission from the Department through the concerned State Government, and after receipt of the permission from the Department, modify the mining plan including the new minerals and get the approval from the Directorate:

Provided further that where subsequent to grant of a mining lease, one or more mineral is found in an area and such minerals are included in the mining lease or a separate mining lease is granted for such minerals, the periods of lease for all minerals shall be co-terminus with that for which the first lease was originally granted.

**7. Discovery of atomic minerals by holder of a mineral concession.**—(1) If a holder of a mineral concession which has been granted pursuant to the rules made under Section 13 discovers any atomic mineral, then he shall report the findings to the Directorate and the State Government in a format as may be prescribed by the Department.

(2) Upon receipt of a report under sub-rule (1), the Directorate shall compare the grade of atomic minerals in the concession area with the threshold value and,—

- (a) if the grade of atomic minerals is less than the threshold value, the mineral concession may continue its operations; or
- (b) if the grade of atomic minerals is equal to or above the threshold value, then,
  - (i) in case of a reconnaissance permit which was granted prior to 12th January, 2015, the holder of such reconnaissance permit shall be eligible to receive a prospecting licence followed by a mining lease, only if it is a Government company or corporation approved by the Department;
  - (ii) in case of a prospecting licence, including a prospecting licence-cum-mining lease under Section 10-A, the holder of such prospecting licence shall be eligible to receive a mining lease, only if it is a Government company or corporation approved by the Department; or

- (iii) in case of a mining lease, the lessee shall continue mining for that particular mineral for which the mining lease was granted with the prior approval of the Department and in case of refusal by the Department the mining lease shall be terminated by the State Government as soon as the communication to this effect is received by the State Government:

Provided that the atomic minerals so discovered during the mining operations, shall be handled and disposed of in accordance with the directives issued by the Department regarding conservation of atomic minerals and the directives issued by the Board regarding radiological safety:

Provided further that in case the State Government terminates the reconnaissance permit or the prospecting licence or in case the State Government terminates the mining lease on grounds of refusal by the Department, the State Government shall pay the holder of the reconnaissance permit or the prospecting licence or the mining lease, as the case may be, such sum as in its opinion would represent a fair estimate of the expenditure incurred on such reconnaissance or prospecting or mining operations, as the case may be.

(3) If the Directorate finds the report submitted under sub-rule (1) to be insufficient for making a determination under sub-rule (2), it may seek additional information from the holder of mineral concession or direct the holder of mineral concession to continue exploration and submit findings with regard to such additional data as may be specified by the Directorate.

(4) On receipt of the findings and data referred to in sub-rule (3), the Directorate shall take action as specified in sub-rule (2).

### CHAPTER III

#### MINING PLAN FOR ATOMIC MINERALS

**8. Mining plan.**—(1) No mining operations shall be undertaken with respect to a mining lease granted under sub-rule (7) of Rule 6, except in accordance with a mining plan which has been approved by the Directorate pursuant to clause (b) of sub-section (2) of Section 5:

(2) If a mining lease granted under sub-rule (7) of Rule 6 is also for minerals other than atomic minerals, then the lessee shall prepare a composite mining plan for mining of all the minerals specified in the mining lease, including the atomic minerals and in such a case, the composite mining plan shall be approved only by the Directorate pursuant to clause (b) of sub-section (2) of Section 5.

(3) The composite mining plan shall be submitted for approval to the Director of the Directorate along with a non-refundable fee of <sup>3</sup>[twenty five thousands] rupees per square kilometer on a pro-rata basis of area over which the mining lease is applied for.

3. Subs. for "one thousand" by G.S.R. 693(E), dt. 5-11-2020 (w.e.f. 10-11-2020).

(4) The Directorate shall dispose of the application for approval of the mining plan within a period of ninety days from the date of receipt of a duly completed application:

Provided that if the Directorate finds an application incomplete and requires any modification, then the aforementioned period of ninety days shall be reckoned from the date on which a complete application is resubmitted.

(5) The mining plan shall contain—

- (i) the plan of the lease hold area showing the nature and extent of the mineral body;
- (ii) details of the geology and lithology of the area including mineral reserves of the area;
- (iii) the extent of manual mining or mining by the use of machinery and mechanical devices;
- (iv) the plan of the area showing natural water courses, limits of reserves and other forest areas and density of trees, if any, assessment of impact of mining activity on forest, land surface and environment including air and water pollution; details of scheme of restoration of the area by afforestation, land reclamation, use of pollution control devices and such other measures as may be directed by the Department or the State Government from time to time;
- (v) a tentative scheme of mining and annual programme and plan for excavation from year to year for five years;
- (vi) precise area or allocated area from the State Government marked in the cadastral maps;
- (vii) a progressive mine closure plan as provided in the Mineral Conservation and Development Rules, 1988 made under Section 18; and
- (viii) any other matter which the Directorate may require to be provided in the mining plan.

(6) The mining plan shall be made in accordance with the format provided by the Directorate.

(7) The mining plan once approved shall be subject to review and updation at an interval of every five years starting from date of registration of the duly executed mining lease deed:

Provided that any modification of the mining plan shall be approved by the Directorate in accordance with the procedure specified in this rule regarding approval of a mining plan, and such an approval of the modified mining plan shall remain valid for the next five years term.

(8) The lessee shall submit, one hundred and eighty days before the expiry of every five years period specified in sub-rule (7), a mining plan for mining operations for the next period of subsequent five years.

(9) A holder of a mining lease may seek modifications in the approved mining plan as are considered expedient, keeping in view changes in the business environment; or in the interest of safe and scientific mining, conservation of

minerals, for the protection of environment, increase in production, increase or decrease in lease area, any drastic changes in the beneficiation process or any other reason to be specified in writing by the holder of a mining lease and any modification to a mining plan shall be approved by the Directorate.

**9. Preparation of mining plan.**—(1) Every mining plan under clause (b) of sub-section (2) of Section 5 shall be prepared by a person having the following qualifications and experience, namely—

- (a) a degree in mining engineering or a postgraduate 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 institution 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 the Central Government; and
- (b) professional experience of five years of working in a supervisory capacity in the field of mining after obtaining the degree.

(2) Modifications to a mining plan shall be carried out by a person qualified to prepare a mining plan.

(3) The lessee shall ensure that the mining plan is prepared in accordance with the format specified by the Directorate in this regard.

#### CHAPTER IV

#### TERMS AND CONDITIONS OF A MINING LEASE

**10. Conditions.**—(1) Every mining lease granted by the State Government shall be subject to the following conditions, namely—

- (a) the lessee shall at all times comply with the provisions of the Act, the rules and all other applicable laws, including the Atomic Energy Act, 1962 (33 of 1962);
- (b) the lessee shall report in writing to the State Government and the Department, the discovery in the leased area of any mineral not specified in the lease, within sixty days of such discovery;
- (c) if any mineral not specified in the lease is discovered in the leased area, the lessee shall not win and dispose of such mineral unless such mineral is included in the lease or a separate lease is obtained therefor;
- (d) the lessee shall pay, for every year, except the first year of the lease, such yearly dead rent at the rates specified in the Third Schedule to the Act and if the lease permits the working of more than one mineral in the same area, the State Government shall not charge separate dead rent in respect of each mineral:

Provided that the lessee shall be liable to pay—

- (i) the aggregate of royalty in respect of all minerals; or
- (ii) the dead rent for the highest value mineral, whichever is higher;

- (e) the lessee shall also pay, for the surface area used by him for the purposes of mining operations, surface rent and water rate at such rate not exceeding the land revenue, water and cesses assessable on the land as may be specified by the State Government in the lease;
- (f) the lessee shall commence mining operations within two years from the date of execution of mining lease deed and shall thereafter conduct such operations in a proper, skilful and workman-like manner.

*Explanation.*—For the purposes of this clause, “mining operations” shall include the erection of machinery, laying of a tramway or construction of a road in connection with the working of the mine;

- (g) subject to the provisions of the Act, the rules and any other applicable law, the lessee shall, with respect to the land leased to him, have the right for the purpose of mining operations on that land—
  - (i) to work in the mines and conduct mining operations;
  - (ii) to sink pits and shafts and construct buildings and roads;
  - (iii) to erect plant and machinery;
  - (iv) to quarry and obtain building and road materials and make bricks;
  - (v) to use water and take timber;
  - (vi) to use land for stacking purpose;
  - (vii) to do any other thing specified in the lease;
- (h) the lessee shall at his own expenses erect and at all times maintain and keep in good repair boundary marks and pillars necessary to indicate the demarcation shown in the mining plan annexed to the lease;
- (i) the lessee shall construct and upkeep the boundary pillars as follows—
  - (A) each corner of the lease area shall have a boundary pillar (corner pillar);
  - (B) there shall be erected intermediate boundary pillars between the corner pillars in such a way that each pillar is visible from the adjacent pillar located on either side of it;
  - (C) the distance between two adjacent pillars shall not be more than fifty metres;
  - (D) the pillars shall be of square pyramid frustum shaped above the surface and cuboid shaped below the surface;
  - (E) each pillar shall be of reinforced cement concrete;
  - (F) the corner pillars shall have a base of 0.30m X 0.30m and height of 1.30m of which 0.70m shall be above ground level and 0.60m below the ground;
  - (G) the intermediate pillars shall have a base of 0.25m X 0.25m and height of 1.0m of which 0.70m shall be above ground level and 0.30m below the ground;
  - (H) all the pillars shall be painted in yellow colour and the top ten centimetres in red colour by enamel paint and shall be grouted with cement concrete;

- (I) shall mark on all corner pillars, distance and bearing to the forward and backward pillars and latitude and longitude;
  - (J) each pillar shall have serial number in a clockwise direction and the number shall be engraved on the pillars;
  - (K) the number of pillar shall be the number of the individual pillar upon the total number of pillars in the lease;
  - (L) the tip of all the corner boundary pillars shall be a square of fifteen centimetres on which a permanent circle of ten centimetres diameter shall be drawn by paint or engraved and the actual boundary point shall be intersection of two diameters drawn at ninety degrees;
  - (M) the lease boundary survey shall be accurate within such limits of error as the Director of the Directorate may specify in this behalf;
  - (N) the location and number of the pillars shall also be shown in the surface and other plans maintained by the lessee; and
  - (O) in case of forest area within the lease, the size and construction and colour of the boundary pillars shall be as per the norms specified by the Forest Department of the State Government in this behalf;
- (j) the lessee shall not carry on, or allow to be carried on, any mining operations at any point within a distance of fifty metres from any railway line, except under and in accordance with the written permission of the railway administration concerned, or under or beneath any ropeway or ropeway trestle or station, except under and in accordance with the written permission of the authority owning the ropeway, or from any reservoir, canal or other public works, or buildings, except under and in accordance with the prior permission of the State Government.
- Explanation.*—For the purposes of this clause the distance of fifty metres shall be measured in the case of railway, reservoir or canal, horizontally from the outer toe of the bank or the outer edge of the cutting, as the case may be, and in case of a building, horizontally from the plinth thereof;
- (k) the lessee shall not, in the case of village roads, including any track shown in the revenue record as village road, allow any working to be carried on within a distance of ten metres of the outer edge of the cutting except with the prior permission of the Deputy Commissioner or Collector or any other officer duly authorised by the State Government in this behalf and otherwise than in accordance with such directions, restrictions and additions, either general or special, which may be attached to such permission;
  - (l) the lessee shall keep accurate and faithful accounts showing the quantity and other particulars of all minerals obtained and dispatched from the mine, the number and nationality of persons employed therein, and complete plans of the mine, and shall allow any officer authorised by the Department or the Directorate or the State Government in this behalf to

examine at any time any account, plan and record maintained by him and shall furnish to the Central Government or the State Government with such information and returns as it or any officer authorised by it in the behalf may require:

Provided that in the case of minerals containing prescribed substances such information and returns shall be furnished only to the Director of the Directorate;

- (m) the lessee shall keep accurate records of all trenches, pits and drillings made by him in the course of mining operations carried on by him under the lease, and shall allow any officer authorised by the Central Government or the State Government to inspect the same and such records shall contain the following particulars, namely—
  - (i) the subsoil and strata through which such trenches, pits or drillings pass;
  - (ii) any mineral encountered;
  - (iii) such other particulars as the Central Government or the State Government may from time to time require;
- (n) the lessee shall strengthen and support, to the satisfaction of the railway administration concerned or the State Government, as the case may be any part of the mine which in its opinion requires such strengthening or support for the safety of any railway, reservoir, canal, road or any other public works or buildings;
- (o) the lessee shall allow any officer authorised by the Central Government or the State Government to enter upon any building, excavation or land comprised in the lease for the purpose of inspecting the same;
- (p) whenever mining is undertaken for beach sand mineral deposits or heavy mineral deposits available at inland teris or areas containing atomic mineral in association with other minerals, the lessee shall maintain the records and details of the list of minerals mined, details of mining methodology and storage location of these minerals within the mining lease area, tonnage of such minerals, the mineralogy, complete material balance towards conservation of such minerals with respect to its mineral contents:

Provided that in case of beach sand minerals, the preferential separation of one or more of the heavy minerals of commercial interest from beach sand minerals would invariably result in enhancement of the relative content of other minerals and atomic minerals including monazite in the left-over beach sands and the lessee shall—(i) also maintain the details of quantity of waste and tailings generated during mining and mineral beneficiation activities; (ii) the storage location shall be clearly maintained in the plans and registers; (iii) the lessee shall not transfer or sell or dispose such materials without the prior approval of the Department regarding conservation of atomic minerals and the directives issued by the Board regarding radiological safety;

- (q) the lessee shall, in the matter of employment, give preference to the tribals and to the persons who become displaced because of the taking up of mining operations;
- (r) the lessee shall pay to the occupier of the surface of the land such compensation as may become payable under these rules;
- (s) the State Government or any lessee or person authorised by it in that behalf by the State Government shall have the right to—
  - (i) enter into and upon the leased land and to construct upon, over or through the same, any railways, tramways, roadways or pipelines for any purpose authorised by the State Government and to get from the said lands, stones, gravel, earth and other materials for making, maintaining and repairing such railways, tramways, roads or any existing railways and roads; and
  - (ii) to pass over or along any such railways, tramways, road lines and other ways, at all times, with or without horses, cattle or other animals, carts, wagons, carriages, locomotives or other vehicles for all purposes:

Provided that in the exercise of such liberty and power by such other lessee or person authorised by the State Government, no substantial hindrance or interference shall be caused to or with the liberties, powers and privileges of the lessee and fair compensation as may be mutually agreed upon or in the event of disagreement, as may be decided by the State Government, shall be made to the lessee for all loss or damage substantial hindrance or interference caused to the lessee by such other lessee or person authorised by the State Government;

- (t) the lessee shall also comply with the provisions of any other rules made under Section 11-B.
- (2) A mining lease may contain such other conditions as the State Government may deem necessary in respect of the following, namely—
- (a) the time-limit, mode and place of payment of rents and royalties;
  - (b) the compensation for damage to the land covered by the lease;
  - (c) the felling of trees;
  - (d) the restriction of surface operations in any area prohibited by any authority;
  - (e) the notice by lessee for surface occupation;
  - (f) the provision of proper weighing machines;
  - (g) the entering and working in a reserved or protected forest;
  - (h) the securing of pits and shafts;
  - (i) the reporting of accidents;
  - (j) the indemnity to Government against claims of third parties;
  - (k) the delivery of possession of lands and mines on the surrender, expiration or determination of the lease;



- (l) the time limit for removal of mineral, ore, plant, machinery and other properties from the lease hold area after expiration, or sooner termination or surrender or abandonment of the mining lease;
- (m) the forfeiture of property left after termination of lease;
- (n) the power to take possession of plant, machinery, premises and mines in the event of war or emergency;
- (o) filing of civil suits or petitions relating to disputes arising out of the area under lease.

(3) The State Government may, either with the prior approval of the Department or at the instance of the Department, impose such further conditions as may be necessary in the interests of development of atomic minerals or areas containing atomic minerals in association with other minerals.

(4) If the lessee does not allow entry or inspection under clauses (l), (m), or (o) of sub-rule (1), the State Government shall give notice in writing to the lessee requiring him to show cause within such time as may be specified in the notice why the lease should not be terminated and if the lessee fails to show cause within the aforesaid time to the satisfaction of the State Government, the State Government may terminate the lease with due permission from the Department.

(5) If the lessee holding a mining lease is convicted of illegal mining and there are no interim orders of any court of law suspending the operation of the order of such conviction in an appeal pending against such conviction in any court of law, the State Government may, without prejudice to any other proceedings that may be taken under the Act or the rules framed thereunder, after giving such lessee an opportunity of being heard and for reasons to be recorded in writing and communicated to the lessee, may opt for termination of the lease with due permission from the Department.

(6) If the lessee makes any default in the payment of royalty as required by Section 9 or payment of dead rent as required by Section 9-A or payment of money as required by Section 9-B or Section 9-C or commits a breach of any of the conditions specified in these rules, the State Government shall give notice to the lessee requiring him to pay the royalty or dead rent or remedy the breach, as the case may be, within sixty days from the date of the receipt of the notice and if the royalty or dead rent is not paid or the breach is not remedied within the said period, the State Government may, with prior permission from the Department, without prejudice to any other proceedings that may be taken against him, terminate the lease and forfeit the whole or part of the performance security.

**11. Grant of mining lease by State Government over areas containing atomic minerals.**—(1) Prior to conduct of auction process for grant of mining lease or a prospecting licence-cum-mining-lease, over an area containing atomic minerals, with respect to which the Directorate has not made an assessment regarding threshold value, the State Government shall submit an application to the Directorate, specifying the particulars of the area proposed to be auctioned, the geological report and any other information as may be relevant.

(2) Within two months from the date of receipt of the application, the Directorate shall make an assessment pursuant to sub-rule (5) of Rule 4 and follow the procedure specified in sub-rule (6) of Rule 4.

**12. Action for contravention or non-fulfilment of obligations.**—(1) In the case of contravention or non-fulfilment of the obligations under the mining lease deed or the terms and conditions of mining lease, the State Government, under intimation to the Department, reserves the right to take appropriate action, including the right to terminate the mining lease or forfeit, in whole or part, the amount of performance security deposited by the holder of mining lease:

Provided that no such order shall be made without giving the lessee a reasonable opportunity of stating his case.

(2) If the lessee fails to carry out or perform any of its obligations hereunder or under the lease deed within the time specified in that behalf, the State Government may cause the same to be carried out or performed and the lessee shall pay the State Government, on demand, all expenses incurred in this regard by the State Government and the decision of the State Government as to such expenses shall be final.

(3) If the lessee fails to fulfil any of the terms and conditions hereunder or under the mining lease shall not give the Central Government or the State Government any claim against the lessee or be deemed a breach of the lease, in so far as such failure is considered by the relevant Government to arise from force majeure.

*Explanation.*—In this rule the expression “force majeure” means act of God, war, insurrection, riot, civil commotion, strike, earth quake, tide, storm, tidal wave, flood, lightning, explosion, fire, earthquake and any other happening which the lessee could not reasonably prevent or control.

(4) If there is any delay by the lessee to fulfil any of the terms and conditions hereunder or under the mining lease on account of a force majeure event, the period of such delay shall be added to the period fixed by these rules or the mining lease.

#### CHAPTER V

#### LAPSE, SURRENDER OR TERMINATION

**13. Lapsing of mining lease.**—(1) Subject to the provisions of this rule, the mining lease shall lapse where mining operations are not commenced within a period of two years from the date of execution of the mining lease, or is discontinued for a continuous period of two years after commencement of such operations.

(2) The lapsing of a mining lease shall be recorded through an order issued by the State Government and shall also be communicated to the lessee.

(3) Where a lessee is unable to commence the mining operations within a period of two years from the date of execution of the mining lease or discontinuation of mining operations for reasons beyond his control, he may submit an application to the State Government, explaining the reasons therefor, at least three months before the expiry of such period of two years:

Provided where the lessee has failed to make the application within the time stipulated above, the lease shall lapse on expiry of the period of two years.

(4) Application made under sub-rule (3) shall specify in detail—

- (a) the reasons on account of which it is not possible for the lessee to undertake mining operations or continue such operations;
- (b) the manner in which such reasons are beyond the control of the lessee; and
- (c) the steps that have been taken by the lessee to mitigate the impact of such reasons.

(5) Every application under sub-rule (3) shall be accompanied by a fee of one lakh rupees.

(6) The State Government shall, after examining the adequacy and genuineness of the reasons for the non-commencement of mining operations or discontinuance thereof, pass an order, within a period of three months from the date of receipt of the application made under sub-rule (3) or the date on which the mining lease would have otherwise lapsed, whichever is earlier, either granting or rejecting such request:

Provided that such mining lease shall lapse on failure to undertake mining operations or inability to continue the same before the end of a period of six months from the date of the order of the State Government communicating that the lease has not lapsed.

(7) The State Government may, on an application made by the holder of a mining lease submitted within a period of six months from the date of its lapse and on being satisfied of the adequacy and genuineness of the reasons for non-commencement of mining operations or discontinuance thereof was beyond the control of the holder of the mining lease, revive the mining lease within a period of three months from the date of receiving the application from such prospective or retrospective date as it thinks fit but not earlier than the date of lapse of the mining lease:

Provided that no mining lease shall be revived for more than twice during the entire period of the mining lease.

(8) Application made under sub-rule (7) for revival of the mining lease shall specify in detail—

- (a) the reasons on account of which the lessee failed to undertake mining operations or continue such operations;
- (b) the manner in which such reasons are beyond the control of the lessee; and
- (c) the steps that have been taken by the lessee to mitigate the impact of such reasons:

Provided that the State Government may seek such additional information, documents or clarifications with respect to the application as it may require.

(9) Every application under sub-rule (7) shall be accompanied by a fee of one lakh rupees.

(10) The State Government shall have the right to enforce the performance security of the lessee to carry out protective, reclamation and rehabilitation measures in the leased area of the mining lease which has lapsed.

(11) The lessee shall pay any expenditure over and above the performance security incurred by the State Government, towards protective, reclamation and rehabilitation measures in the leased area of the mining lease which has lapsed.

**14. Surrendering mining lease.**—(1) The lessee may make an application for surrendering the entire area of the mining lease after giving a notice in writing of not less than twelve calendar months from the intended date of surrender and such application shall be accompanied by an approved final mine closure plan:

Provided that the lessee may make an application for surrendering a part of the area under mining lease only in case the lessee is unable to comply with any of the conditions of the mining lease.

(2) In case of surrendering a part of the mining lease area, the minimum area of the mining lease shall stand adjusted accordingly.

(3) The State Government shall permit surrender of part of the area only with the prior approval from the Department.

(4) The State Government may allow surrendering a mining lease under sub-rule (1) if the following conditions are satisfied, namely—

(a) the lessee has submitted a certificate from the Director of the Directorate confirming implementation of the final mine closure plan approved by the Director of the Directorate, including protective, reclamation and rehabilitation work; and

(b) all dues with respect to the mining lease have been settled.

(5) In case of surrender of the entire area of the mining lease, the performance security provided by the lessee shall be forfeited.

(6) The lessee shall pay any expenditure over and above the performance security incurred by the State Government, towards protective, reclamation and rehabilitation measures in the leased area of the mining lease which has been surrendered.

**15. Termination.**—(1) If the termination of a mining lease under the provisions of sub-section (1) of Section 4-A, or these rules, the State Government shall have the right to enforce the performance security of the lessee to carry out protective, reclamation and rehabilitation measures in the area.

(2) The lessee shall pay any expenditure over and above the performance security incurred by the State Government, towards protective, reclamation and rehabilitation measures in the leased area of the mining lease which has been terminated.

(3) The lessee may, after paying the rents, rates and royalties payable hereunder or under the lease deed, on the expiry or termination of the lease term or within

six calendar months thereafter, whichever is earlier take down and remove to its own benefit, all or any ore mineral excavated during the currency of the lease, engines, machinery, plant, buildings structures, tramways, railways and other works, erections and conveniences which may have been erected, set up or placed by the lessee in or upon the leased lands and which the lessee is not bound to deliver to the State Government or which the State Government does not desire to purchase.

Provided that the provisions of this sub-rule shall not apply if the lease is terminated for default of the lessee.

(4) In case the lease is terminated for default of the lessee, he shall be entitled for claiming the benefit of sub-rule (3) at any time not earlier than three calendar months nor later than six calendar months.

(5) If at the end of six calendar months after the expiry or termination of the lease term there shall remain in or upon the leased land, any ore or mineral, engines, machinery, plant, buildings structures, tramways, railways and other work, erections and conveniences or other property which are not required by the lessee in connection with operations in any other lands held by it under prospecting licence or mining lease, the same shall, if not removed by the lessee within one calendar month of being notified to do so by the State Government, be deemed to become the property of the State Government and may be sold or disposed of in such manner as the State Government shall deem fit without liability to pay any compensation or to account to the lessee in respect thereof.

## CHAPTER VI COMPENSATION

**16. Payment of compensation to owner of surface rights, etc.—**(1) The holder of a mineral concession shall be liable to pay to the occupier of the surface of the land over which he holds the concession, such annual compensation as may be determined by an officer appointed by the State Government by notification in this behalf in the manner provided in sub-rules (2) to (6).

(2) In the case of agricultural land, the amount of annual compensation referred to in sub-rule (1) shall be worked out on the basis of the average annual net income from the cultivation of similar land for the previous three years.

(3) In the case of non-agricultural land, the amount of annual compensation referred to in sub-rule (1) shall be worked out on the basis of average annual letting value of similar land for the previous three years.

(4) The annual compensation referred to in sub-rule (1) shall be payable on or before such date as may be specified by the State Government in this behalf.

(5) The holder of a mineral concession may implement the provisions of rehabilitation and resettlement policy for payment of such compensation, approved by the State Government, as the case may be.

(6) If after the receipt of an offer of compensation for any damage which is likely to arise from the proposed operation of the lessee, the occupier of the surface

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of any part of the said land refuses his consent to the exercise of the rights and powers reserved to the State Government and granted by the mining lease, the lessee shall report the matter to the State Government and shall deposit with it the amount offered as compensation and if the State Government is satisfied that the amount of compensation is reasonable or if it is not so satisfied and the lessee shall have deposited with it such further amount as the State Government may consider reasonable, the State Government shall order the occupier to allow the lessee to enter upon the said land and carry out such operations as may be necessary for the purpose of the lease.

(7) In assessing the amount of such compensation, the State Government shall be guided by the provisions of the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 (30 of 2013).

(8) Whenever the private patta land owners provide the consent to the lessee for a short period towards surface operations over their lands, the payment of compensation amount for the said short period shall be arrived based on the mutually agreed terms and conditions.

(9) The amount of compensation referred to in sub-rule (8) shall be assessed either as per the prevailing rules of the State Government or by the officer appointed by the State Government.

(10) The payment of compensation amount by the lessee to the concerned land owner, undertaking the surface operations over the private land for a short period as per the consent and handing over back the said private land after completion of surface operations shall be as per the mutually agreed terms and conditions between the lessee and the private land owner.

(11) The lessee shall not enter into the private patta lands for surface operations without obtaining consent of the patta land owner.

**17. Assessment of compensation for damage.**—(1) After the termination of a mineral concession, the State Government shall assess the damage, if any, done to the land by the reconnaissance or prospecting or mining operations, as the case may be, and shall determine the amount of compensation payable by the mineral concession holder, as the case may be, to the occupier of the surface land.

(2) Every assessment referred to in sub-rule (1) shall be made within a period of one year from the date of termination of the mineral concession and shall be carried out by an officer appointed by the State Government by notification in this behalf.

## CHAPTER VII

### PAYMENTS

**18. How fees and deposit are to be made.**—Any amount payable under the Act or rules made thereunder except that payable in respect of revision petition under sub-rule (2) of Rule 24 and mining plan under sub-rule (3) of Rule 8, shall be paid in such manner as the State Government may specify in this behalf.

**19. Payment of interest.**—The State Government may, without prejudice to the provisions contained in the Act or rules made thereunder, charge simple interest at the rate of twenty-four per cent. per annum on any rent, royalty or fee other than the fee payable under sub-rule (2) of Rule 23 and sub-rule (3) of Rule 8, or other sum due to that Government under the Act or rules made thereunder or terms and conditions of any mineral concession from the sixtieth day of the expiry of the date fixed by that Government for payment of such royalty, rent, fee or other sum and until payment of such royalty, rent, fee or other sum is made.

**20. Payments under mining lease.**—(1) The lessee shall pay royalties to the State Government in the manner specified in Section 9 of the Act or the dead rent specified in Section 9-A of the Act.

(2) The lessee shall pay, for every year, except the first year of the lease, such yearly dead rent at the rates specified in the Third Schedule to the Act and if the lease permits the working of more than one mineral in the same area, the State Government shall not charge separate dead rent in respect of each mineral:

Provided that the lessee shall be liable to pay.—

- (i) the aggregate of royalty in respect of all minerals; or
- (ii) the dead rent for the highest value mineral, whichever is higher.

(3) The lessee shall also pay, for the surface area used by him for the purposes of mining operations, surface rent and water rate at such rate, not exceeding the land revenue, water and cess assessable on the land, as may be specified by the State Government in the lease.

**21. Payments under Section 9-B and Section 9-C.**—In addition to the payments specified in Rule 20, the holder of a mining lease shall be required to pay monies to the District Mineral Foundation and the National Mineral Exploration Trust in accordance with the provisions of Sections 9-B and Section 9-C, and the rules in relation thereto.

**22. Charging of royalty in case of minerals subjected to processing.**—(1) If processing of run-of-mine mineral is carried out within the leased area, then, royalty shall be chargeable on the processed mineral removed from the leased area.

(2) If the run-of-mine mineral is removed from the leased area to a processing plant which is located outside the leased area, then, royalty shall be chargeable on the unprocessed run-of-mine mineral and not on the processed product.

**23. Manner of payment of royalty on minerals on ad valorem basis.**—(1) Every owner of mine, his agent, manager, employee, contractor or sub-lessee shall compute the amount of royalty on minerals where such royalty is charged on ad valorem basis in accordance with the provisions of sub-rule (2).

(2) For all atomic minerals in Part B of the First Schedule to the Act, the State-wise sale prices for different minerals as published by the Department shall be the sale price for computation of royalty in respect of any mineral produced any time during a month in any mine in that State, and the royalty shall be computed as per the formula given below:

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Royalty = # Sale price of mineral (grade wise and State-wise) published by Department of Atomic Energy/Indian Bureau of Mines/State Government X Rate of royalty (in percentage) X Total quantity of mineral of a particular grade dispatched (removed from the lease area):

Provided that if for a particular mineral, the information for a State for a particular month is not published by the State Government and the Department the latest information available for that mineral in the State shall be considered, failing which the latest information for all India for the mineral shall be considered.

## CHAPTER VIII

### REVISION

**24. Application for revision.**—(1) Any person aggrieved by—

- (a) any order made by the State Government or other authority in exercise of the powers conferred on it by or under the Act or these rules in relation to regulation of atomic mineral concessions and for purposes connected therewith; or
- (b) non-passing of any order specified in clause (a) within the time specified therefor may,

within three months from the date of communication of the order to him, or the date on which the time period for passing such order expired, apply to the Department in the form specified in Schedule E for passing of an order, pursuant to Section 30.

(2) The application shall be accompanied by a bank draft for ten thousand rupees as application fee drawn on a Scheduled bank in the name of Pay and Accounts Officer, the Department payable at Mumbai or by way of a bank transfer to the designated bank account of the Department:

Provided that any such application may be entertained after the said period of three months if the applicant satisfies the Central Government that he had sufficient cause for not making the application within time.

(3) In every application under sub-rule (1) against the order of a State Government refusing to grant a mineral concession, any person to whom a mineral concession was granted in respect of the same area or for a part thereof, shall be impleaded as party.

(4) The applicant shall, along with the application under sub-rule (1), submit as many copies thereof as there are parties impleaded under sub-rule (3).

(5) On receipt of the application and copies thereof, the Central Government shall send a copy of the application to each of the parties impleaded under sub-rule (3) specifying a date on or before which he may make his representation, if any, against the revision application:

Provided that in case where the revision application has been filed for the reason that no order has been passed by the State Government within the time specified therefor, the Central Government shall before passing an order give the State Government an opportunity of being heard or to represent in the matter.



**25. Orders on revision application.**—(1) On receipt of an application for revision under Rule 24, copies thereof shall be forwarded to the State Government or other authority and to all the impleaded parties calling upon them to make such comments as they may like to make within three months from the date of issue of the communication, and the State Government or other authority and the impleaded parties, while furnishing comments to the Central Government shall simultaneously endorse a copy of the comments to the other parties.

(2) The comments received from any party under sub-rule (1) shall be forwarded to the other parties for making such further comments as they may like to make within one month from the date of issue of the communication and the parties making further comments shall forward such further comments to all the other parties.

(3) The revision application, the communications containing comments and counter-comments referred to in sub-rule (1) and (2) shall constitute the record of the case.

(4) After considering the records referred to in sub-rule (3), the Central Government may confirm, modify or set aside the order or pass such other order in relation thereto as the Central Government may deem just and proper.

(5) The Central Government may for sufficient cause, pending the final disposal of an application for revision, stay the execution of the order against which any revision application has been made.

(6) If in any event the orders of the State Government are revised, reviewed or cancelled by the Central Government in pursuance of proceedings under these rules, the lessee shall not be entitled to compensation for any loss sustained by the lessee in exercise of the powers and privileges conferred upon the lessee by the lease deed.

## CHAPTER IX

### MISCELLANEOUS

**26. Power to rectify apparent mistakes.**—Any clerical or arithmetical mistake in any order passed by the Government or any other authority or officer under these rules and any error arising therein from accidental, inadvertent slip or omission, may, within two years from the date of the order, be corrected by the Government, authority or officer, as the case may be:

Provided that no order prejudicial to any person shall be passed unless he has been given a reasonable opportunity of being heard.

**27. Copies of leases and annual returns to be supplied to Government.**—(1) A copy of every mining lease granted under these rules shall be supplied by each State Government within two months of such grant or renewal to the Director of the Directorate and the Director General Mines Safety.

(2) A consolidated annual return of all mining leases granted under these rules shall also be supplied by each State Government to the Director, Atomic Minerals Directorate, Hyderabad and the Director General Mines Safety in such form as may

be specified by him, not later than the 30th day of June following the year to which the return relates.

**28. Change of name, address to be intimated.**—The holder of a mining lease shall intimate to the Department and State Government within sixty days any change that may take place in his name and other particulars in the format specified in Schedule F.

**29. Prior approval of Central Government to be obtained through State Government.**—Where in any case, prior approval of the Central Government is required under the Act or these rules, the application for such approval shall be made to the Central Government through the State Government.

**30. Facilities for training of students.**—(1) Every owner, agent or manager of a mine shall permit researchers or students of mining, geological and mineral processing institutions approved by the Department or the Central Government to conduct research or acquire practical training of the mines and plants operated by them and provide all necessary facilities required for the training of such students.

(2) The applications for research or training from students of institutions teaching mining, geology or mineral processing shall be forwarded to the owner, agent or manager of a mine through the Principal or Head of the Institution.

(3) The cases of refusal to provide facilities for research or practical training by any owner, agent or manager of a mine shall be referred to the Secretary, Department of Atomic Energy, Mumbai, for his decision within a period of thirty days.

**31. Geophysical data to be supplied to Department.**—(1) A holder of mining lease or a person conducting prospecting operations, as the case may be, shall furnish all information pertaining to investigations of atomic minerals collected by him during the course of exploration and mining operations to the Director, Atomic Minerals Directorate for Exploration and Research, Hyderabad, Director General, Geological Survey of India, and to the Director of Geology and Mining of the State, in which the mining operations are carried on.

(2) The data or information referred to in sub-rule (1) shall be furnished every year reckoned from the date of commencement of the period of the mining lease.

**32. Registers.**—A register of mining leases granted under these rules shall be maintained by the State Government in the format specified in Schedule G, which shall be accessed by the Directorate, the Department and the Board, whenever required, for the purpose of ensuring conservation of atomic minerals, and enforcing radiological safety regulations, respectively.

**33. Amalgamation of leases.**—(1) The State Government may, in the interest of mineral development, and with reasons to be recorded in writing, permit amalgamation of two or more adjoining leases held by a lessee:

Provided that the period of amalgamated leases shall be co-terminus with the lease, whose period will expire first:

Provided further that prior approval of the Department shall be obtained for such amalgamation.

(2) An application for the amalgamation of mining leases pending at the commencement of these rules shall be disposed of in accordance with these rules.

**34. Boundaries below surface.**—The boundaries of the area covered by a mining lease shall run vertically downwards below the surface towards the centre of the earth.

**35. Pending applications.**—An application pending at the commencement of these rules, which is not inconsistent with the Act and these rules shall be disposed of in accordance with the provisions of these rules.

<sup>4</sup>**36. Power of the Central Government to amend Schedule A.**—The Central Government may, in consultation with the Department, by notification in the Official Gazette, amend Schedule A so as to amend the threshold value, as may be specified in the notification.]

#### CHAPTER X

#### PENALTY

**37. Penalty.**—Any contravention of these rules shall be punishable with imprisonment for a term which may extend to two years or with fine which may extend to five lakh rupees, or with both, and in the case of a continuing contravention, with additional fine which may extend to Rupees Fifty thousand for every day during which such contravention continues after conviction for the first such contravention.

#### <sup>5</sup>[SCHEDULE A

#### PARTICULARS OF THRESHOLD VALUE FOR ATOMIC MINERALS

[See Rule 2(1)(m) and Rule 36]

1.	Beryl and other beryllium - bearing minerals	0.1% BeO (1000 ppm BeO) of the rock or 10kg/tonne Beryl in excavated material.
2.	Lithium bearing minerals	0.5% (5000 ppm) Li <sub>2</sub> O in ore, except brine (200 ppm Li, i.e. 200 g/tonne Li).
3.	Minerals of the 'rare earths' group containing uranium and thorium	60 ppm U <sub>3</sub> O <sub>8</sub> and/or 250 ppm ThO <sub>2</sub> in ore.
4.	Niobium-bearing minerals	100 ppm (Nb+Ta) <sub>2</sub> O <sub>5</sub> (100 g/tonne) in ore.
5.	Phosphorites and other phosphatic ores containing uranium	60 ppm U <sub>3</sub> O <sub>8</sub> in ore.
6.	Pitchblende and other uranium ores	60 ppm U <sub>3</sub> O <sub>8</sub> in ore, except in Singhbhum Shear zone in Jharkhand where the

4. Subs. by G.S.R. 126(E), dt. 19-2-2019 (w.e.f. 19-2-2019). Prior to substitution it read as:

“36. Power of the Department to amend Schedule A.—The Department may, by notification in the Official Gazette, amend Schedule A so as to amend the threshold value, as may be specified in the notification.”

5. Subs. by G.S.R. 134(E), dt. 20-2-2019 (w.e.f. 20-2-2019).

		threshold value will be 150 ppm $U_3O_8$ in ore.
7.	Titanium bearing minerals and ores (ilmenite, rutile and leucoxene)	In case of titanium-bearing minerals occurring in hard rock, 60 ppm $U_3O_8$ and/or 250 ppm $ThO_2$ in the rock. All cases of titanium-bearing minerals occurring in Beach Sand Minerals and other placer deposits in association with monazite are notified as above threshold (i.e. the threshold is 0.00% monazite in Total Heavy Minerals), irrespective of monazite grade.
8.	Tantalum-bearing minerals	100 ppm $(Ta+Nb)_2O_5$ (100 g/tonne) in ore.
9.	Uraniferous allanite, monazite and other thorium minerals	60 ppm $U_3O_8$ and/or 250 ppm $ThO_2$ . All cases of Beach Sand Minerals and other placer deposits in association with monazite are notified as above threshold (i.e. the threshold is 0.00% monazite in Total Heavy Minerals), irrespective of monazite grade.
10.	Uranium bearing tailings left over from ores after extraction of copper and gold, ilmenite and other titanium ores.	60 ppm $U_3O_8$ and/or 250 ppm $ThO_2$ .
11.	Zirconium bearing minerals and ores including zircon.	All cases of zirconium -bearing minerals occurring in Beach Sand Minerals and other placer deposits in association with monazite are notified as above threshold (i.e. the threshold is 0.00% monazite in Total Heavy Minerals), irrespective of monazite grade. In other cases, zircon containing less than 2000 ppm of Hafnium.
12.	Beach Sand Minerals i.e. economic heavy minerals found in the teri or beach sand, which include ilmenite, rutile, leucoxene, garnet, monazite, zircon and sillimanite.	All cases of Beach Sand Minerals and other placer deposits in association with monazite are notified as above threshold (i.e. the threshold is 0.00% monazite in Total Heavy Minerals), irrespective of monazite grade.]

### SCHEDULE B

#### PARAMETERS FOR ESTABLISHING THE EXISTENCE OF MINERALIZATION FOR ATOMIC MINERALS

[See Rules 4(1), 4(4), 5(1) and 5(2)]

**Geological assessment.**—The purpose of Geological assessment is to identify mineralization, to establish continuity, quality and quantity of mineral deposit for feasibility assessment in order to define investment opportunity. The Economic viability is generally evaluated initially by assumptions indicating that deposit is of intrinsic interest.

**Part I: Explanations**

(1) The exploration for any mineral deposit essentially involves four steps, namely Reconnaissance Survey (G4), Preliminary Exploration (G3), General Exploration (G2) and Detailed Exploration (G1). These provide resource and reserves categories reflecting increasing degree of geological assurance which can be documented in respective geological reports.

(2) Depending upon the extent of area to be explored, topography, time available and the level of details required one step can be combined with another or more steps of exploration.

(3) Reconnaissance Survey (G4) identifies areas of enhanced mineral potential based primarily on results of regional geological studies, regional geological mapping, airborne and indirect methods, preliminary field inspection, and geological inference and extrapolation. The objective is to identify mineralised areas worthy of further investigation towards deposit identification.

(4) Preliminary Exploration (G3) is the systematic process of searching for a mineral deposit by narrowing down areas of promising enhanced mineral potential. The methods utilised are outcrop identification, geological mapping, and indirect methods such as geophysical and geochemical studies. Limited wide spaced pitting or trenching or drilling with sampling to identify a deposit which will be the target for further exploration. Estimates of quantities are inferred, based on interpretation of geological, geophysical, geochemical and geo-technical investigations results.

(5) General Exploration (G2) (Prospecting) involves the initial delineation of an identified deposit. Methods used include surface mapping, pitting or trenching or drilling followed by sampling for evaluation of mineral quantity and quality (including mineralogical tests on laboratory scale if required), and limited interpolation based on indirect methods of investigation. The objective is to establish the main geological features of a deposit, giving a reasonable indication of continuity and providing an initial estimate of size, shape, structure and grade. The degree of accuracy should be sufficient for deciding whether a Prefeasibility Study and Detailed Exploration are warranted.

(6) Detailed Exploration (G1) involves the detailed three-dimensional delineation of a known deposit achieved through sampling, such as from outcrops, pits, trenches, boreholes, exploratory mining (wherever required) shafts and tunnels etc. Sampling grids are closely spaced such that size, shape, structure, grade, and other relevant characteristics of the deposit are established with a high degree of accuracy. Processing tests involving bulk sampling from exploratory mining may be required.

(7) Mineral Resource (G4 and G3) is a concentration of solid material of economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade or quality, continuity and other geological characteristics of a mineral resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling.

(8) Mineral resources are sub-divided, in order of increasing geological confidence into Inferred, Indicated and Measured categories.

(9) Inferred Mineral Resource (G4) is that part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling achieved through a stage of preliminary exploration.

(10) An Inferred Resource has a lower level of confidence than that applying to an Indicated Mineral Resource. The majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

(11) Indicated Mineral Resource (G3) is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit.

(12) Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation.

(13) Measured Mineral Resource (G3 and G2) is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit.

(14) Geological evidence is derived from detailed and reliable exploration, exploratory mining, sampling and testing and is sufficient to confirm geological and grade or quality continuity between points of observation.

(15) A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Measured Mineral Reserve or to an Indicated Mineral Reserve.

(16) Mineral Reserve (G2 and G1) is the economically mineable part of Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at Pre-feasibility or Feasibility level as appropriate that include application of Modifying Factors.

(17) Probable Mineral Reserve (G2) is the economically mineable part of an Indicated Mineral Resource, and in some circumstances, a Measured Mineral Resource.

(18) The confidence in the Modifying Factors applying to a Probable Mineral Reserve is lower than that applying to a Proven Mineral Reserve.

(19) Proven Mineral Reserve (G1) is the economically mineable part of a Measured Mineral Resource. A Proven Mineral Reserve implies a high degree of confidence in the Modifying Factors.

(20) Modifying Factors are considerations used to convert Mineral Resources to Mineral Reserves. These include, but are not restricted to, mining, processing, end use, cut-off grade, threshold value, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental factors.

(21) Pre-feasibility Study is a study of a range of options for the technical and economic viability of a mineral project that has advanced to a stage where a preferred mining method, in the case of underground mining, or the pit configuration, in the case of an open pit, is established and an effective method of mineral processing is determined. It includes a financial analysis based on reasonable assumptions on the Modifying Factors and the evaluation of any other relevant factors which are sufficient, to determine if all or part of the Mineral Resource may be converted to a Mineral Reserve at the time of reporting. A Pre-Feasibility Study is at a lower confidence level than a Feasibility Study.

(22) Feasibility Study is a detailed comprehensive technical and economic study of the selected development option for a mineral project that includes appropriately detailed assessments of applicable Modifying Factors together with any other relevant operational factors and detailed financial analysis that are necessary to demonstrate at the time of reporting that extraction is reasonably justified (economically mineable). The confidence level of the study will be higher than that of a Pre-Feasibility Study.

(23) *Economic viability*: The Economic viability of a deposit shall depend on the activities indicated in Part II to Part IV and shall act as a qualifier based on the activities taken up.

(24) "Cut off grade" means the minimum economic assay grade of the mineral for a deposit below which the mining operations become unviable in the present market dynamics or end use quality. It may vary from time to time and deposit to deposit depending upon market requirement.

**Part II: Geological Parameters for exploration**

1	<p><i>Aerial reconnaissance:</i> Satellite imagery/remote sensing/airborne geophysical survey etc. using appropriate technology (applicable mainly for reconnaissance survey (G4) stage).</p>
	<p><i>Geological survey (Mapping):</i> On 1:50,000 or smaller scale for reconnaissance (G4) stage; on 1:10,000 or larger scale for preliminary exploration (G3) stage; 1:4000/1:5,000 or larger scale for general exploration (G2) stage; on 1:2,000 or larger scale for detailed exploration (G1) stage.</p>
	<p>Ground Geophysical and Geochemical survey: Geophysical and geochemical survey using appropriate techniques as may be necessary.</p>
	<p><i>Technological:</i> Exploration and sampling using appropriate techniques from locations such as outcrops, trenches, pits, old workings and drill holes. The sampling locations are spaced suitably (in a grid pattern to the extent possible and may be modified depending on structural complexity) for establishing existence of ore body and its lateral and vertical continuity.</p> <p>For General (G2) and detailed (G1) stages of exploration, the depth continuity of mineralisation may be considered limited to the depth up to which direct evidence of mineralization is established.</p> <p>The lateral extension to be considered for resource assessment shall depend on geological considerations and in any case shall not be more than 50% of the grid spacing of the probe points.</p> <p>Assessment based on selected information such as isolated assays, isolated drill holes, assays of panned concentrates etc. is not recommended.</p> <p>Sampling and sub-sampling: (a) Random grab/chip/channel sampling from surface exposure/escarpments/nallah cuttings/pit/channel etc. for reconnaissance stage.</p> <p>(b) Systematic sampling from pits/trenches/outcrops/workings etc. spaced closely enough to confirm geological and grade continuity for other stages of geological assessment.</p> <p>(c) Litho-logging and gamma-ray logging of boreholes as the case may be, sampling of drill core/chip samples at regular interval, preferably metre wise or less for the mineralized portions.</p> <p>(d) The drill technique to be deployed shall depend on the rock type to be penetrated and with an aim to achieve maximum sample/core recovery.</p>
	<p><i>Assay data and Laboratory tests:</i> Analysis of all samples generated for major radicals appropriate to the mineral under investigation. Analysis of by-products and deleterious elements wherever necessary.</p>
	<p><i>Petrographic and Mineragraphic studies:</i> Petrographic analysis of mineralized portions to ascertain the rock types and mineral assemblages including grain size, texture, gauge and its liberation characteristics etc. if considered necessary.</p>
	<p><i>Bulk density study:</i> The bulk density must be measured by methods that adequately account for void spaces (vugs, porosity and other void spaces)</p>
	<p><i>Bulk Sampling for Beneficiation studies:</i> Bulk sampling if necessary for testing processing technology.</p>

Environmental setting details about local infrastructure, host population, historical sites, forests, sanctuaries, national park and base line information on environmental setting of the area to be collected.
<i>Any other relevant data:</i> groundwater, geotechnical and rock characteristics and other data that may be relevant

**Part III: Suggested norms for Exploration by drilling for different types of Uranium, Thorium and Rare Metal and Rare Earth Element deposits**

Type of deposit and Principal Minerals	G4 stage	G3 stage	G2 stage	G1 stage	Remarks
I. Bedded Stratiform and Tabular Uranium Deposits of Regular and irregular Habit, and classified as: Sandstone type, Carbonate hosted, Phosphate, Black Shale, Surficial and Coal Lignite hosted uranium deposits	Scout drilling/ pitting/ trenching as per necessity	Bore-hole grid/ sample spacing may be at least 800m × 400m or at least 5 boreholes per sq km	Bore-hole grid/sample spacing may be at least 400m × 200m or at least 18 boreholes per sq km	Bore-hole grid/sample spacing may be at least 200m × 100m or at least 65 boreholes per sq km	Exploratory mine openings- open pit or underground development with bulk determination of grades at G1 stage as per requirement
II. Lenticular Uranium bodies of all dimensions including bodies occurring in linear zones of composite veins, lenses, pockets, stockworks, and classified as: Metamorphite, Metasomatite, Unconformity-related, Intrusive, Granite related, Polymetallic hematite breccia complex type, Volcanic related and Collapse Breccia Pipe	Scout drilling/ pitting/ trenching as per necessity	Bore-hole grid/ sample spacing may be at least 400m × 200m or at least 18 boreholes per sq km	Bore-hole grid/sample spacing may be at least 200m × 100m or at least 65 boreholes per sq km	Bore-hole grid/sample spacing may be at least 100m × 50m or at least 230 boreholes per sq km	Exploratory mine openings- open pit or underground development with bulk determination of grades at G1 stage as per requirement



types of uranium deposits.					
III. Rare metal and REE pegmatites, reefs and veins/pipes, Carbonatite and other Alkali Igneous Rocks	Scout drilling/ random pitting/ trenching as per necessity	10 to 25 pits/ trenches/ per sq.km. In case of drilling, borehole spacing may be 40m × 20m or 40m × 40m.	Pitting/ Trenching/ preferably at 20m interval. In case of drilling, borehole spacing may be 20m × 10m or 20m × 20m.	Exploratory open pit or boreholes at 10m × 10m or closer or underground sampling with bulk determination of grades and recovery wherever necessary	
IV. Beach and Inland Placer Deposits Beach, dune and inland (Teri/Red Sands) placer concentration of heavy mineral deposits (ilmenite, leucoxene, rutile, magnetite, monazite, garnet, sillimanite and zircon etc.) formed by wave and wind action with grain size varying from silt to coarse sand.	Random sampling as per availability of sample points	Auger/ Conrad/ Bunka/ Dormer/ Vibrocore/ RCD drilling >2000-3000m × 200m	Auger/ Conrad/ Bunka/ Dormer/ Vibrocore/ RCD drilling: G.2.1.: >200-1000m × 100-200m grid G.2.2.: >1000-2000m × 200m grid	Auger/ Conrad/ Bunka/ Dormer/ Vibrocore/ RCD drilling 200m × 100m grid or closer.	

**Part IV: A Geological Report for estimation and reporting of Mineral Resources integrating all data of exploration, sampling and testing generated through aerial, geophysical, geochemical, geological surveys and technological study may be undertaken for every stage of geological study i.e. from G4 to G1 for assessing the resources. The report on these studies generally incorporates the following.**

Sl. No.	Criteria	Explanation
1	Title and Ownership	— Name, address of the prospector including E-mail ID, telephone number.

2	Details of the area	<ul style="list-style-type: none"> <li>— Details of period of prospecting/mineral right if any.</li> <li>— Village, District, State</li> <li>— Survey of India Toposheet No. Geo-coordinates of the area of all corner points</li> <li>— cadaster details of the area with land use</li> <li>— mineral(s) under investigation</li> </ul>
3	Infrastructure and Environment	<ul style="list-style-type: none"> <li>— Local infrastructure, host population, historical sites, forests, sanctuaries, national park and environmental settings of the area.</li> </ul>
4	Previous Exploration	<ul style="list-style-type: none"> <li>— Details Of previous exploration carried out by other agencies/parties.</li> <li>— In case the area forms part of the area covered under earlier exploration then the same should be shown in a map with proper scale.</li> </ul>
5	Geology	<ul style="list-style-type: none"> <li>— Brief regional geology of the area outlining the broad geological, structural frame work.</li> <li>— Deposit type, geological setting and details of dip, strike, old workings, surface exposures etc. of the area under study also of adjoining nearby areas if available and the information is likely to have an impact on the area under study.</li> <li>— Reliable geological map of appropriate scale with geo-coordinates showing major lithological units, structural and tectonic features; extent of surface mineralisation, structure, location of boreholes, pits, trenches, old workings and other geo-coordinates.</li> <li>— Cross sections at suitable intervals showing vertical projections of litho-units and mineralization.</li> <li>— The extent and variability of the mineralization expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</li> </ul>
6	Aerial/ground geophysical/ geochemical data	<ul style="list-style-type: none"> <li>Details of aerial, geophysical and geochemical survey results taken up if any.</li> </ul>
7	Technological investigation	<ul style="list-style-type: none"> <li>— Details of technological investigation (pitting/trenching/drilling and other details)</li> <li>— Data spacing for reporting of Exploration Results: Whether the data spacing and distribution is based on section I and II and is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource estimation procedure(s) and classifications applied.</li> </ul>
8	Sampling Technique	<ul style="list-style-type: none"> <li>Nature and quality of sampling (For example cut channels, random chips and other sampling) and measures taken to ensure sample representivity.</li> </ul>
9	Drilling Technique and drill employed	<ul style="list-style-type: none"> <li>— Drill type (For example core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic and other drilling techniques) and details (For example core diameter, triple</li> </ul>

		<p>or standard tube, collar R.L., sampling, azimuth, inclination, coordinates of bore holes and other details).</p> <p>— Whether core and chip sample recoveries have been properly recorded and results assessed.</p> <p>— Measures taken to maximize sample recovery and ensure representative nature of the samples.</p> <p><i>Logging.</i>—Whether core and chip samples have been logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</p>
10	Sub-sampling techniques and sample preparation	<p>— If core, whether cut or sawn and whether quarter, half or all core taken.</p> <p>— If non-core, whether riffled, tube sampled, rotary split etc. and whether sampled wet or dry.</p> <p>— For all sample types, the nature, quality and appropriateness of the sample preparation technique.</p> <p>— Quality control procedures adopted for all sub-sampling stages to maximize representivity of samples.</p> <p>— Measures taken to ensure that the sampling is representative of the in situ material collected.</p> <p>— Whether sample sizes are appropriate to the grain size of the material being sampled.</p>
11	Quality of assay data and laboratory tests	<p>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</p> <p>Nature of quality control procedures adopted (For example standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (that is lack of bias) and precision have been established.</p>
12	Moisture	— Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.
13	Bulk Density	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.
14	Resource estimation techniques	<p>— Discussion on sufficient data density to assure continuity of mineralization and synthesis adequate data base for estimation procedure used.</p> <p>— The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, Interpolation parameters, maximum distance of extrapolation from data points.</p> <p>— The basis for the classification of the Mineral Resources into varying confidence categories.</p> <p>— The assumptions made regarding recovery of byproducts.</p>

		<p>— Detailed description of the method used and the assumptions made to estimate tonnages and grades (section, polygon, inverse distance, geostatistical, or other method).</p> <p>— Description of how the geological interpretation was used to control the resource estimates.</p> <p>— Discussion of basis for using or not using grade cutting or capping. If a computer method was chosen, description of programmes and parameters used.</p> <p>— Geostatistical methods are extremely varied and shall be described in detail. The method chosen shall be justified. The geostatistical parameters, including the variogram, and their compatibility with the geological interpretation shall be discussed. Experience gained in applying geostatistics to similar deposits should be taken into account.</p> <p>— Data verification and/or validation procedures used.</p>
15	Further work	— The nature and scale of planned further work (For example tests for lateral extensions or depth extensions or large scale step-out drilling).
16	Annexures/ enclosures to the report	The report shall include all relevant data including maps, sections, logs, analysis reports photographs etc. in support of the estimates made
17	Any Other Information	Any other information as may be available or required by any authority.

#### Part V: Criteria for Pre-feasibility or Feasibility Report

The Criteria for pre-feasibility/feasibility report (to be prepared and submitted by the mining companies) for estimation and reporting of mineral reserves (the criteria listed in Part-IV shall also be applicable for estimation and reporting of mineral reserves). The Geological Study Report shall also form a part of the pre-feasibility/feasibility report.

Sl. No.	Criteria	Explanation
1	Mineral Resource estimate for conversion to Mineral Reserve	<p>— Description of Mineral Resource estimate used as a basis for the conversion to a Mineral reserve.</p> <p>— Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of the Mineral Reserves.</p> <p>— The type and level of study undertaken to enable Mineral Resources to be converted to Mineral Reserves, that is Pre-feasibility/Feasibility level.</p>
2	Cut off Parameters	— The basis of the adopted cut-off grade(s) or quality parameters applied, including the basis, if appropriate, of equivalent metal formulae and the threshold values prescribed by Indian Bureau of Mines.
3	Mining factors or assumptions.	— The method and assumptions used to convert the Mineral Resource to a Mineral Reserve (that is either by application of appropriate factors by optimisation or by preliminary or detailed design supported with conceptual plan for mining).

		<ul style="list-style-type: none"> <li>— The choice of, the nature and the appropriateness of the selected mining method(s), the size of the selected mining unit (length, width, height) and other mining parameters including associated design issues such as pre-strip, access, and other associated designations.</li> <li>— The assumptions made regarding geotechnical parameters (For example pit slopes, stope sizes, and other geo technical parameters), grade control and pre-production drilling.</li> <li>— The major assumptions made and Mineral Resource model used for pit optimisation (if appropriate).</li> <li>— The mining dilution factors, mining recovery factors, and minimum mining width used.</li> <li>— The infrastructure requirements of the selected mining methods. Where available, the historic reliability of the performance parameters.</li> </ul>
4	Metallurgical factors or assumptions.	<ul style="list-style-type: none"> <li>— The metallurgical process proposed and the appropriateness of that process to the type of deposit.</li> <li>— The nature, amount and representativeness of metallurgical test work undertaken and the metallurgical recovery factors applied.</li> <li>— Any assumptions or allowances made for deleterious elements.</li> <li>— The existence of any bulk sample or pilot scale test work and the degree to which such samples are representative of the orebody as a whole.</li> <li>— The tonnages and grades reported for Mineral Reserves should state clearly whether these are in respect of material to the plant or after recovery. Comment on existing plant and equipment, including an indication of replacement and salvage value</li> </ul>
5	Cost and revenue factors	<ul style="list-style-type: none"> <li>— The derivation of, or assumptions made, regarding projected capital and operating costs.</li> <li>— The assumptions made regarding revenue including head grade, metal or commodity price exchange rates, transportation and treatment charges, penalties, and other revenue factors.</li> <li>— The allowances made for royalties payable, both Government and private.</li> <li>— Basic cash flow inputs for a stated period.</li> </ul>
6	Market assessment	<ul style="list-style-type: none"> <li>— The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</li> <li>— A customer and competitor analysis along with the identification of likely market windows for the product.</li> <li>— Price and volume forecasts and the basis for these forecasts.</li> <li>— For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</li> </ul>
7	Other modifying factors	<ul style="list-style-type: none"> <li>— The effect, if any, of natural risk, infrastructure, environmental, legal, marketing, social or governmental factors on the likely viability of a project and/or on the estimation and classification of the Mineral Reserves.</li> </ul>

		<p>— The status of titles and approvals critical to the viability of the project, such as mining leases, discharge permits, government and statutory approvals.</p> <p>— Environmental descriptions of anticipated liabilities. Location plans of mineral rights and titles.</p>
8	Classification.	<p>— The basis for the classification of the Mineral Reserves into varying confidence categories.</p> <p>— Finalization of estimates of grade wise mineable quantities in contemplation with proposed preliminary mine design/conceptual plan subject to all necessary approvals/contracts have been confirmed or there are reasonable expectations that all such approvals/contracts will be obtained within a reasonable timeframe and with certification that Economic viability is not affected by short-term adverse market conditions provided that longer-term forecasts remain positive.</p>

### SCHEDULE C

#### FORMAT OF BANK GUARANTEE FOR PERFORMANCE SECURITY

[See Rule 6(6)(b)]

[Reference number of the bank]

[Date]

To

The Governor of [Name of State]

[address]

WHEREAS

- A. [Name], a government [company/corporation] incorporated in India under the Companies Act, (1956/2013) with corporate identity number [CIN of the Applicant], whose registered office is at [address of registered office], India and principal place of business is at [address of principal place of business, if different from registered office] (the "Applicant") is required to provide an unconditional and irrevocable bank guarantee for an amount equal to INR [figures] (Indian Rupees [words]) as a performance security valid until [date of expiry of performance bank guarantee] ("Expiry Date").
- B. The Performance Security is required to be provided to The Governor of [Name of State], (the "State") for discharge of certain obligations under the [reference to the principal documents — mining lease, mine development and production agreement] dated, [date] with respect to [particulars of concession] (collectively the "Concession Document").
- C. We, [name of the bank] (the "Bank") at the request of the Applicant do hereby undertake to pay to the State an amount not exceeding INR [figures] (Indian Rupees [words]) ("Guarantee Amount") to secure the obligations of the Applicant under the Concession Document on demand from the State on the terms and conditions herein contained herein.

Now, therefore, the Bank hereby issues in favour of the State this irrevocable and unconditional payment bank guarantee (the "Guarantee") on behalf of the Applicant in the Guarantee Amount:

- I. The Bank for the purpose hereof unconditionally and irrevocably undertakes to pay to the State without any demur, reservation, caveat, protest or recourse, immediately on receipt of first written demand from the State, a sum or sums (by way of one or more claims) not exceeding the Guarantee Amount in the aggregate without the State needing to prove

or to show to the Bank grounds or reasons for such demand for the sum specified therein and notwithstanding any dispute or difference between the State and Applicant on any matter whatsoever. The Bank undertakes to pay to the State any money so demanded notwithstanding any dispute or disputes raised by the Applicant in any suit or proceeding pending before any court or tribunal relating thereto the Bank's liability under this present being absolute and unequivocal.

2. The Bank acknowledges that any such demand by the State of the amounts payable by the Bank to the State shall be final, binding and conclusive evidence in respect of the amounts payable by Applicant to the State under the Concession Document.
3. The Bank hereby waives the necessity for the State from demanding the aforesaid amount or any part thereof from the Applicant and also waives any right that the Bank may have of first requiring the State to pursue its legal remedies against the Applicant, before presenting any written demand to the Bank for payment under this Guarantee.
4. The Bank further unconditionally agrees with the State that the State shall be at liberty, without the Bank's consent and without affecting in any manner the Bank's obligation under this Guarantee, from time to time to:
  - (i) vary or modify the terms and conditions of the Concession Document;
  - (ii) extend or postpone the time for performance of the obligations of the Applicant under the Concession Document, or
  - (iii) forbear or enforce any of the rights exercisable by the State against the Applicant under the terms and conditions of the Concession Document,and the Bank shall not be relieved from its liability by reason of any such act or omission on the part of the State or any indulgence by the State to the Applicant or other thing whatsoever which under the law relating to sureties would, but for this provision, have the effect of relieving the Bank of its obligations under this Guarantee.
5. Any payment made hereunder shall be made free and clear of and without deduction for, or on account of, any present or future taxes, levies, imposts, duties, charges, fees, commissions, deductions or withholdings of any nature whatsoever.
6. The Bank agrees that State at its option shall be entitled to enforce this Guarantee against the Bank, as a principal debtor in the first instance without proceeding at the first instance against the Applicant.
7. The Bank further agree that the guarantee herein contained shall remain in full force and effect during the period that specified in the Concession Document and that it shall continue to be enforceable till all the obligations of the Applicant under or by virtue of the said Concession Document with respect to the Performance Security have been fully paid and its claims satisfied or discharged or till the State certifies that the terms and conditions of the Concession Document with respect to the Performance Security have been fully and properly carried out by the Applicant and accordingly discharges this guarantee. Notwithstanding anything contained herein, unless a demand or claim under this guarantee is made on the Bank in writing on or before the Expiry Date the Bank shall be discharged from all liability under this guarantee thereafter.
8. The payment so made by the Bank under this Guarantee shall be a valid discharge of Bank's liability for payment thereunder and the State shall have no claim against the Bank for making such payment.

- This Guarantee is subject to the laws of India. Any suit, action, or other proceedings arising out of this Guarantee or the subject matter hereof shall be subject to the exclusive jurisdiction of courts at the State of [respective State].
10. The Bank has the power to issue this Guarantee in favour of the State. This guarantee will not be discharged due to the change in the constitution of the Bank.
  11. The Bank undertakes not to revoke this Guarantee during its currency except with the previous consent of the State in writing.
  12. The State may, with prior intimation to the Bank, assign the right under this Guarantee to any other departments, ministries or any governmental agencies, which may act in the name of the Governor. Save as provided in this clause, this Guarantee shall not be assignable or transferable.
  13. Notwithstanding anything contained herein,
    - (a) the liability of the bank under this bank guarantee shall not exceed the Guarantee Amount.
    - (b) This bank guarantee shall be valid up to the Date of Expiry.
  14. The Bank is liable to pay the guaranteed amount or any part thereof under this bank guarantee only and only if the State serves upon the Bank a written claim or demand on or before the Expiry Date.

Dated the [day] day of [month] [year].

In witness whereof the Bank, through its authorized officer, has set its hand and stamp.

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Name and Designation)

\_\_\_\_\_  
(Bank Stamp)

### SCHEDULE D

#### FORMAT OF MINING LEASE DEED

[See Rule 6(9)(a)]

This deed for grant of a mining lease ("Lease") is made by and between the following:

**PARTIES:**

- 1 The Governor of [State], acting through [Department of Mines and Geology of the State] (the "State Government").
- AND
- 2 [Name of the Lessee] a government [company/corporation] [incorporated in India under the Companies Act, 2013 with corporate identity number [CIN], whose registered office is at [address of registered office], India and principal place of business is at [address of principal place of business, if different from registered office]] (the "Lessee").

**BACKGROUND:**

- A. The lessee has completed the requirements under the Mines and Minerals (Development and Regulation) Act, 1957 ("Act") and these rules for grant of a mining lease].
- B. Accordingly, the State Government is now executing this deed for grant of a lease to the lessee in consideration of the fee, royalties, covenants and agreements hereinafter reserved and contained on the part of the Lessee to be paid, observed and performed.



1. DEFINITIONS.—The expressions used in this lease shall have the same meaning as ascribed to them under the Act and these rules.
2. GRANT OF LEASE
  - 2.1. The State Government hereby grants the lease to the lessee over an area described in Schedule E (“Lease Area”) for conducting mining operations for a period of [time period], commencing from [date of commencement] with respect to following mineral(s), [name of the minerals] (“Minerals”).
  - 2.2. The lease shall be with respect to all those the mines beds/veins seams of the Minerals situated lying and being in or under the Lease Area.
  - 2.3. Subject to the lessee paying the royalties and making other payments required to be paid and observing and performing all the covenants and agreements herein contained and on the part of the lessee to be observed and performed shall and may quietly hold and enjoy the rights and premises of the lease area for and during the term hereby granted without any unlawful interruption from or by the State Government or any person rightfully claiming under it.
3. RIGHTS AND OBLIGATIONS
  - 3.1. The rights and obligations of the State Government and the lessee shall be as specified in the Act and these rules and the Mine Development and Production Agreement dated [date].
  - 3.2. Without prejudice to the generality of the foregoing,
    - (a) the lessee shall:
      - (i) at all times comply with the provisions of the Act and these rules and any other applicable law;
      - (ii) make prompt payment of royalty and any other payments required to be made by the lessee;
      - (iii) pay such compensation as may be assessed by lawful authority in accordance with the law in force on the subject for all damage, injury, or disturbance which may be done by the lessee in exercise of the powers granted by this lease and to indemnify and keep indemnified fully and completely the State Government against all claims which may be by any person or persons in respect of any such damage, injury or disturbance and all costs and expenses in connection therewith;
      - (iv) take measures, at his own expense, for the protection of environment like planting of trees, reclamation of mined land, use of pollution-control devices, and such other measures as may be prescribed by the Central or State Government from time to time;
      - (v) without delay send to the Deputy Commissioner Collector and the Department, a report of any accident causing death or serious bodily injury or serious injury to property or seriously affecting or endangering life or property which may occur in the course of the operations under this lease;
      - (vi) weigh or cause to be weighed or measured upon some part of the lease area all minerals from time to time won from the lease area, with [number of days] prior notice

being given to the Deputy Commissioner/Collector every such measuring or weighing in order that he or some person on his behalf may be present thereat;

- (vii) submit to the State Government and the Department a full report of the work done by the lessee and disclose all information acquired by the lessee in the course of the operations carried on under this lease regarding the geology and mineral resources of the area covered by the lease; and
  - (viii) pay stamp duty and registration charges as may be applicable in respect of this deed.
- (b) the State Government shall:
- (i) have the right to appropriate any performance security provided by the lessee in accordance with terms of such performance security and require the lessee to replenish the performance security. In case the performance security has been provided through a security deposit after termination of the lease and fulfilment of all obligations of the lessee, such security deposit shall be returned to the lessee after appropriate deductions. It is clarified that the security deposit shall not carry any interest; and
  - (ii) have the right to carry out or perform any work or matters which in accordance with the covenants in that behalf are to be carried out or performed by the lessee, but have not been so carried out or performed within the time specified in that behalf, and the lessee shall pay the State Government on demand all expenses which shall be incurred in such carrying out or performance of the same.

- 3.3. In the event of the existence of a state of war or emergency (of which existence the President of India shall be the sole judge and a notification to this effect in the Gazette of India shall be conclusive proof) the State Government with the consent of the Central Government shall from time to time and at all times during the said term have the right (to be exercised by a notice in writing to the lessee/lessees) forthwith take possession and control of the works, plant, machinery and premises of the Lessee on or in connection with the lease area or the operations under this lease and during such possession or control, the lessee shall conform to and obey all directions given by or on behalf of the Central Government or State Government regarding the use of employment of such works, plants, premises and minerals, provided that fair compensation, which shall be determined in default of agreement by the State Government shall be paid to the lessee for all loss or damage sustained by him/them by reason or in consequence of the exercises of the powers conferred by this clause and provided also that the exercise of such power shall not terminate the said term hereby granted or affect the terms and provisions of this clause.
- 3.4. Every notice required to be given to the lessee shall be given in writing to such person as may be nominated by the lessee and such nomination shall be informed to the State Government in writing. If no such nomination is made then the notice shall be given to the lessee by registered

post/speed post addressed to the Lessee at the address shown in the application for the lease or at such other address in India as the lessee may designate from time to time and every such service shall be deemed to be proper and valid service upon the lessee and shall not be questioned or challenged by him.

4. GOVERNING LAW.—This lease and all questions of its interpretation shall be construed in accordance with the laws of India. In the event of any dispute in relation to the this lease and in respect of all matters touching the relationship of the lessee and the State Government, suits of petitions shall be filed in civil courts at [name of the city]) and it is hereby expressly agreed that neither party shall file a suit or appeal or bring any actions at any place other than the court named above.

In witness whereof there presents have been executed at the [name of place] on [date].

### SCHEDULE E

#### FORMAT OF APPLICATION FOR REVISION OR PASSING OF ORDER

[See Rule 24(1)]

To

[Address]

I/We submit the following application for revision/passing of an order which has not been passed within the required time period.

Sl. No.	Details of Item	Particulars
1.	Name of applicant (In case of a firm or other association of individuals, provide names of each person constituting the firm or the association of individuals, as the case may be.)	
2.	Address of the Applicant (In case of a firm or other association of individuals, provide addresses of each person constituting the firm or the association of individuals, as the case may be.)	
3.	Status of the applicant <ul style="list-style-type: none"> <li>• Individual</li> <li>• Firm</li> <li>• Other association of individuals</li> <li>• Company</li> </ul>	
4.	Purpose of the application (Review of an order passed/Request for passing of an order where such an order has not been passed within the time period specified)	
5.	In case of review of an order, date of communication of the order to the applicant; or In case of request for passing of an order, the date on which the time period for passing such order expired.	
6.	Application fee payable	

7.	Name of bank, demand draft or challan number with date, through which application fee has been paid.	
8.	Mineral or minerals for which the application is filed	
9.	Details of area with respect to which the application is filed	
10.	Whether the application is filed within the specified time period.	Yes/No
11.	If not, the reasons for not presenting it within the specified limit and seeking condonation of delay.	
12.	Name and complete address of the party/parties impleaded	
13.	Number of copies of petition attached (Petition is to be submitted in triplicate if no party is impleaded. Besides these, for each party impleaded one additional copy is to be enclosed)	
14.	Grounds of revision	

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

Yours faithfully,

Place:

Date:

Signature of the applicant

*Instructions to applicants.*—(a) The application must be signed by a duly authorized representative of the applicant, in case the applicant is a company. In case the applicant is an individual, the applicant must personally sign the application. In case of a firm or association of individuals, all the persons constituting the firm or association of individuals shall sign the application.

(b) The corporate authorisation of the authorised signatory of the applicant (which is a company) must be enclosed with the application. Any change in such corporate authorisation must be immediately intimated to the State Government.

**SCHEDULE F**  
**NOTICE OF CHANGE IN PARTICULARS**  
[See Rule 28]

To

1. Department of Atomic Energy,  
Anushakti Bhawan, Mumbai
2. State Government Concerned

IMPORTANT

Notice in this Form shall be sent so as to reach concerned authorities within sixty days of the date of change in name and address

1. (i) Name(s) of the mineral(s) worked  
(ii) Name(s) of other minerals if any, for which lease has been granted:
2. (i) Name of the mine  
(ii) Change in the name of mines, if any: (Indicate old name and reason of change)
3. (i) Name and address of the lessee/owner:

- (ii) Change in Name and address of the lessee/owner (Indicate old name and reason of change)
4. Particulars of the Mining Lease:
- (i) Date of execution:
- (ii) Period: ..... Years, from ..... to .....
- (iii) Areas under lease:..... hectares/acres
5. Location of the Mining Lease:
- (i) Village..... Distt. .... Taluka/Tahsil.....
- (ii) Post Office ..... Police Station ..... Distt. ....
- (iii) Nearest railway station ..... Distance .....
- (iv) Nearest Rest House/Dak Bungalow .....
6. Particulars of Agent: Name and address:
7. Particulars of the Manager of the mine: Name and address
8. Particulars of Mining Engineer employed in the mines:
- (i) Name and address:
- (ii) Qualification:
- (iii) Date of appointment:
- (iv) Status of employment: Whole time Part time
9. Letter No. and date through which the mining plan was approved by the Atomic Minerals for Directorate for Exploration and Research No. of Approval Letter and date of Approval
10. Any other specific information

Place:

Signature:

Date:

Name in full:

Designation: Owner/  
Agent/Manager/Mining  
Engineer

(Strike out the items which are not applicable)

**SCHEDULE G**  
**REGISTER OF MINING LEASES**  
[See Rule 32]

Sl. No.	Details of Item	Particulars
1.	Serial No.	
2.	Name of applicant (In case of a firm or other association of individuals, provide names of each person constituting the firm or the association of individuals, as the case may be.)	
3.	Address of the applicant	

	(In case of a firm or other association of individuals, provide addresses of each person constituting the firm or the association of individuals, as the case may be.)	
4.	Status of the applicant <ul style="list-style-type: none"> <li>• Individual</li> <li>• Firm</li> <li>• Other association of individuals</li> <li>• Company</li> </ul>	
5.	Date of application	
6.	Date on which application was received by Receiving Officer	
7.	Number and date of grant of lease	
8.	Date of execution of mining lease	
9.	Details of area	
	District	
	Village	
	Taluka	
	Khasra No.	
	Geo co-ordinates of the area as per Differential Geographical Positioning System.	
	Survey of India Toposheet number	
10.	Mineral(s) for which the mining lease has been granted	
11.	Mineral or minerals added to the mining lease with date	
12.	Extent of the area for which mining lease has been granted (Ha)	
13.	Period for which granted	
14.	Date and period of renewal	
15.	Date of change together with details of change that take place in name, or other particulars of the holder of mining lease.	
16.	Date from which the area is available for re-grant	
17.	Remarks, if any	
18.	Signature of the officer.	