

MINUTES OF THE 51st MEETING OF STATE LEVEL EXPERT APPRAISAL COMMITTEE (SEAC), JHARKHAND HELD ON 17TH AND 18TH JANUARY, 2018

The 51st meeting of State Level Expert Appraisal Committee (SEAC), Jharkhand was held on 17th and 18th January, 2018 under the Chairmanship of Sh. K.P. Bhawsinka in the Conference Room at SEAC, Ranchi.

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| 1. Shri K.P. Bhawsinka | - Chairman |
| 2. Dr. B.K. Tewary | - Member |
| 3. Shri R. N. Singh | - Member |
| 4. Shri Y. K. Singh | - Member |
| 5. Shri S.P. Shriwatava | - Member |
| 6. Dr. R.V Singh | - Member |
| 7. Shri M.S. Bhagwat | - Member |
| 8. Shri Om Prakash, | - Member Secretary |

Sri U.P. Singh & Dr. V.P. Sinha, Member, SEAC could not attend the meeting due to personal reason.

Various projects which were received by SEIAA after the previous SEAC meeting on 20th, 21st and 22nd November, 2017 and forwarded to SEAC for their technical appraisal came up for discussions. Besides, those Projects which were appraised in SEAC's earlier meetings in which PP's were asked to provide additional information / clarifications were also considered for examination / scrutiny where the Project proponents had submitted replies. Accordingly, the Project proponents were asked to make technical presentation for the appraisal of their project before the committee.

The following salient observations / recommendation were made during the Presentation (Project-wise), as under:-

A. Discussion on matter related to:

1. SEIAA Memo no. 224, dated 22.11.17 regarding site visit to Tirildih Balu Ghat, Saraikela-Kharsawan.

The field study report submitted by the SEAC members as per the SEIAA memo no. 224, dated 22.11.17 presented on the SEAC meeting. The members discussed the findings of the report and endorsed the recommendation mentioned there in **Annexure V**.

2. SEIAA Letter no. 235, dated 08.12.17 regarding draft policy of Jharkhand State Mineral Policy, 2017

SEAC discussed on the issues as above and particularly the suggestions forwarded by some members of SEAC regarding the Draft Mineral Policy, 2017. The suggestion of members is written below as **Annexure IV**

B. Matter referred by SEIAA

- 1. Proposed Capacity increase of the existing Cement Grinding / Blending unit from 2.1 MTPA to 3.0 MTPA of M/s Dalmia Cement East Limited at Village- Kanari, Bokaro Industrial Park, Tehsil- Chas, District- Bokaro, Jharkhand.**

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In the earlier meeting of SEAC held on 22-23.05.17 TOR for EIA/EMP preparation was granted along with Public Hearing. The proponent submitted an appeal to SEAC, that this is Category B project and established in BIADA area for which Public Hearing is not required vide EIA notification, 2006. In the light of the above, the SEAC discussed the different issues and concluded to exempt the said project from Public Hearing and a fresh TOR be issued.

The proposal was considered by the committee to determine the "Terms of Reference (TOR)" for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006 and amendments thereafter. For this purpose the project proponent has submitted the prescribed Form - I & PFR the proposed activity is listed at S. No. 3 (Material Production), Project Activity '3 (b)' Cement Plant & Scheduled as Category —'8' of EIA Notification 2006 & appraised at State Expert Appraisal Committee, Jharkhand.

Dalmia Cement East Limited is located at Plot No. IV/A-7 (P), Bokaro Industrial Area, Near IOCL Bottling Plant, P.O.: Balidih, District Bokaro in Jharkhand. Its geographical co-ordinates are Latitude 23°42'1.24"N and Longitude 86° 3'46.69"E with mean sea level (MSL) of 231.6 m (760 ft). The area falls under the belt of several industrial units. The road is hard and at a higher level suitable for heavy vehicular traffic. Transport is available for easy movement of personnel, raw material, machinery and finished goods in the area. There is no difficulty in getting the required power and water at the proposed location. The project site is flanked by Purulia in the east & South of West Bengal and Hazaribag in the West and Giridih in the North of Jharkhand. The total plant area is 28.0 Ha, around 9.24 Ha shall be covered under greenbelt to maintain 33% greenbelt in the project area.

Bokaro district is one of the most industrialized zones in India. It is one of the twenty-four districts of Jharkhand state in India. It was established in 1991 by carving out one subdivision consisting of two blocks from Dhanbad District and six blocks from Giridih District. Bokaro Steel City is the district headquarters.

The project site is located in the industrial area of the Bokaro city under the district of Bokaro. The most important river in the area is River Damodar which is at a distance of around 5.0 in northern side with respect to the project site. Garga Dam is situated at a nearest distance of 7.0 Km towards the south from the project site. Bokaro Steel city is located about 9.0 Km distance in the south-east direction w.r.t. the project site.

The site is well connected by road and railway network of the South-Eastern Railways. Tupkadih Railway station is located about 1.5 km north from the project site. Bokaro Railway junction is located about 5.0 Km distance towards south-east direction w.r.t. the project site. NH-23 is passing around 4 km from the project site in southern side. The nearest important Airport is Birsa Munda Airport, Ranchi, which is situated at about 87 km distance in South-west direction from the project site. The project site has good connectivity with sea port of Kolkata, Haldia and Paradip.

Latitude & Longitude of four corner of Project Site	A - 23°41'59"N; 86°03'43"E
	B - 23°42'05"N; 86°03'59"E
	C - 23°41'43"N; 86°04'06"E
	D - 23°41'39"N; 86°03'53"E

Raw Materials

The details relating to major raw materials presently being used and that would be used after capacity expansion from 2.1 MTPA to 3.0 MTPA for this Cement Grinding Plant are presented .

January, 2018 the Committee recommends issuing of TORs for consideration of SEIAA for undertaking detailed EIA / EMP study **Annexure I.**

2. Proposed Cement Grinding Unit of 3.0 MTPA of M/s Ultratech Cement Limited (Unit - Bokaro Cement Works) at Village- Gorabail, Tehsil- Balidih , Dist. – Bokaro, Jharkhand.

ToR was awarded by SEAC on 22nd & 23rd May, 2017, however SEIAA refer the same as land lease agreement was not available. The provisional lease agreement letter dated 28.07.16 was presented during the SEAC meeting. But the proponent did not present the present status of the above letter.

SEAC directed the latest status of the provisional agreement issued earlier for this a letter from BIADA be submitted.

Once the PP provides the information, SEAC will examine the case.

3. Regularisation cum Expansion of M/s Santpuria Alloys (P) Ltd at Vill.-Manjhladih, Gadisrirampur, Giridih.

The case as above was presented by the proponent and consultant. The presentation is for extension of ToR validity .However, on going through the files and as admitted by consultant, this is a violation case pointed out by earlier committee. But again the said committee issued ToR the reason not clearly explained.

The committee discussed the matter and ~~recommended for~~ ^{sought} clarification from the proponent. However on ^{receipt of} ~~unsatisfactory~~ reply, the case ^{may} be forwarded to the violation committee formed by MoEF& CC notification dated 14.03.2017.

4. Expansion cum Modernization of M/s Mongia Steel Ltd at Vill.-Burhiadih, Giridih.

The proponent has been granted ToR by SEIAA on 01.05.2015. As presented it is seen that substantial progress on EIA / EMP preparation and as such ToR extension as requested was recommended for third year 01.05.17 to 31.04.18 as per the MoEF& CC notification no. J-11013/41/2006-IA-II (I) (part), dated 29.08.17.

C. Projects considered for recommendation to SEIAA for consideration of grant of TOR.

1. Proposed 25,200 TPA Crude Coal Tar Distillation unit of M/s Vedang Hydrocarbon Pvt Ltd at Bokaro Industrial Area Development Authority (BIADA), Village- Gorabail, Tehsil- Chas, Dist.- Bokaro.

The proposal was considered by the committee to determine the "Terms of Reference (TOR)" for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006 and amendments thereafter. For this purpose the project proponent has submitted the prescribed Form - I & PFR the proposed project falls under item 6 (b) (isolated storage & handling of hazardous chemicals) as per EIA notification, 2006.

Vedang Hydrocarbon Private Limited (VHPL) incorporated on 06.02.2009 has registered office at 150, Lenin Sarani, 2nd floor, Kolkata – 700 013.

Vedang Hydrocarbon Pvt Ltd is located at Plot No. III/1 : 01 to 12, Bokaro Industrial Area

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Development Authority (BIADA), Village- Gorabali, Tehsil- Chas, District- Bokaro in Jharkhand. Its geographical co-ordinates are Latitude 23°40'.50.4"N and Longitude 86° 03'55.5"E VHPL wants to set up a 25,200 TPA Crude Coal Tar Distillation unit at their acquired land located in Bokaro Industrial Area Development Authority (BIADA), Jharkhand.

The proposed project is a grass root project of distillation of crude coal tar. The plant will be designed to produce high grade coal tar pitch, crude naphthalene, light creosote oil and heavy creosote oil.

The Project Site is located near Bokaro Industrial Area Development Authority (BIADA), Jharkhand. Bokaro Industrial Area is located near Bokaro Steel City. Total 0.58 Ha (1.44 acres) of rectangular well developed industrial land of BIADA is under possession of VHPL for implementation of the proposed project. The maximum water consumption for the proposed project is 5 m3/day. The water requirement will be met through two (2) bore wells. The estimated power requirement of the coal tar distillation plant will be about 0.1 MW and the same will be sourced from Jharkhand State Electricity Board.

All the mitigation measures will be in line with the existing practice of similar kind of industry to meet the environmental standards and environmental operating conditions. No R & R issue is involved with the implementation of the proposed project. The total project cost for the proposed expansion is around Rs 645.22 lakh.

The Project Site is located near Bokaro Industrial Area Development Authority (BIADA), Jharkhand. Bokaro Industrial Area is located near Bokaro Steel City. The nearest railway station is 04 KM Bokaro Steel City. The nearest airport is 130 KM Ranchi. The site is connected to major cities through National Highway NH-18 and National Highway NH 23.

Plant Capacity

The capacity of the plant is 25,200 TPA. The production capacity of different components are furnished below :

Name of Product	Total Production Capacity (TPA)
High Grade Coal Tar Pitch	13,860
Crude Naphthalene	756
Light Creosote Oil	1,764
Heavy Creosote Oil	5,796
TOTAL	22,176

Details of Storage

The following storage facilities will be available at site for storage of raw material and products :

Sl. No.	Description	Numbers	Capacity (MT)
	Storage of Coal Tar	5	200

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	Storage of Heavy Creosote Oil	2	100
	Storage of Light Creosote Oil	1	100
	Pitch Bay	14	8
	Oil Tray	8	8
	Oil and Water Overhead Tank	2	5

Steam Boiler

An oil fired process steam boiler of capacity 25 TPH is also envisaged for the proposed project.

In the earlier presentation following discrepancies identified and committee advised to submit accordingly

1. On toposheet (1:50,000 scale) to specify the location of habitation and other environment sensitive features.
2. Details of Raw Material and its chemical composition.

The document has been submitted. The information was examined and found to be satisfactory.

The project authorities along with their consultant M/s Development Consultants Pvt Ltd gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Terms of Reference for preparation of EIA / EMP report.

It was suggested by the SEAC to the consultant/PP to explore the possibility of utilisation of the Heat generated and wasted during the process and possible potential for tapping the waste heat using suitable technology for gainfull use. This shall form a major step towards sustainable development and resource recycling/conservation, which was considered as appropriate by the PP on his behalf.

Based on the information contained in the documents submitted and the presentation made before the State Level Expert Appraisal Committee (SEAC) during its Meetings held during 17th and 18th January, 2018 the Committee recommends issuing of TORs for consideration of SEIAA for undertaking detailed EIA / EMP study **Annexure II**. The process details, products mix & there nature reflected in MSDS needs special study which to be conducted required exposure study and there effects on human health & safety.

2. Proposed 1x30 MW Coal based Captive Power Plant within existing 4.6 MTPA Cement Grinding Unit of M/s Nuvoco Vistas Corp. Ltd (Formerly Lafarge India Ltd) at Jojobera Cement Plant, Village- Jojobera, East Singhbhum.

The proposal was considered by the committee to determine the "Terms of Reference (TOR)" for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006 and amendments thereafter. For this purpose the project proponent has submitted the prescribed Form - I & PFR the proposed project falls under item 1 (d) (Thermal Power Plants) as per EIA notification, 2006.

Salient Feature :

1.	Name of the Project	Proposed 1x30 MW Coal based Captive Power Plant within existing 4.6 MTPA Cement Grinding Unit at Village- Jojobera, East Singhbhum.
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2.	Name of the promoters	M/s Nuvoco Vistas Corp. Ltd (Formerly Lafarge India Ltd)
3.	Area of plant	7.41 Acres Within existing premises of 122.82 Acres
4.	Latitude Longitude	latitude 22° 44' 55.64"N and longitude 86° 15' 02.9"E.
5.	Proposed capacity	1x30 MW Captive Thermal Power Plant
6.	Cost of project	163.28 Crore
7.	Fuel requirement	Indian Coal – 146578 TPA (100% Indian) Imported Coal – 79893 TPA (100% Imported) Fuel mix of above two.
8.	Water requirement	606 m ³ /day for CPP Source – JUSCO (within the existing agreement)
9.	Power requirement	2000 KW – start-up power
10.	Nearest Railway Station / Airport along with distance in KMS	Tatanagar Railway Station – 4.0 KM Sonari Airport, Jamshedpur – 12.5 KM Ranchi Airport – 112 KM

The project authorities along with their consultant M/s Visiontek Consultancy Services Pvt Ltd, Bhubaneshwar gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Terms of Reference for preparation of EIA / EMP report.

Based on the information contained in the documents submitted and the presentation made before the State Level Expert Appraisal Committee (SEAC) during its Meetings held during 17th and 18th January, 2018 the Committee recommends ^Q issuing of TORs for consideration of SEIAA for undertaking detailed EIA / EMP study **Annexure III**.

subject to clearance from certificate of DFO & CO. Q

D. Projects for which SEAC has sought clarifications from PP.

1. Balkudra OCP (1.0 MTPA Normative & 1.3 MTPA Peak) of M/s Central Coalfield Ltd at Village- Balkudra, Ramgarh (149.50 Ha)

The EIA/EMP of Balkudra expansion project presented by Consultant CMPDIL and clarified by the proponent, CCL regarding different issues raised by the SEAC. The land status certificate given by the CO and forest land by DFO is not clear and as such fresh certificate needs to be issued.

The details of the EIA as per TOR was presented. Finally, the proponent was suggested to submit the CO certificate regarding class of land (whether recorded as Jangal Jhari or not), DFO certificate regarding distance from notified forest / National Park / Sanctuary/ Eco Sensitive Zone / Bio-Diversity Area and approved mine plan for further action.

Once the PP provides the information, SEAC will examine the case.

2. Common Bio-Medical Waste Treatment Facility of M/s Medicare Environmental Management Pvt. Ltd at Plot No. A-7, Phase – II, Sindri Industrial Area, Dhanbad.

The proposal was considered by the committee to determine the "Terms of Reference (TOR)" for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance

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with the provisions of the EIA Notification, 2006 and amendments thereafter. For this purpose the project proponent has submitted the prescribed Form - I & PFR the proposed project falls under item 7 (d) [Common Hazardous Waste Treatment, Storage and disposal facilities (TSDFs)] as per EIA notification, 2006.

M/s Medicare Environmental Management Pvt Ltd is proposing a Bio-Medical Waste Treatment Facility at Plot No. A-7 Phase – II, Sindri Industrial Area, Dhanbad with an area of 1.00 Acre. The proposed facility shall collect the bio-medical waste from various health care establishment / units in Dhanbad and surrounding districts. The proposed equipment for the facility includes Incinerator, Autoclave, Shredder, Storage, Effluent treatment plant etc.

Proposed equipment

Sl. No.	Equipment	Capacity
1.	Incinerator	150 kg / hr
2.	Autoclave	430 – 2000 liters / batch
3.	Shredder	50 kg/hr

The project is aimed to cater the needs of the bio-medical waste generated from nearby Health Care Units of Dhanbad and surrounding districts (Bokaro, Ramgarh, Dumka, Hazaribagh, Godda, Giridih, Jamtara, Deoghar) with an approximation of 20,000 beds @ 0.16-0.2 kg/day/bed equals to 3.2 – 4 TPD.

The primary purpose of incineration is to burn the waste to ashes through a combustion process. The unit shall be a dual chambered incinerator. The purpose of autoclave is to sterilize / dis-infect the waste with steam. Microorganisms which contribute to infection do not survive beyond 80°C. However, as a precaution MoEF& CC has stipulated a temperature of 121°C with 15 psi pressure to ensure distribution of temperature. The net water requirement for the proposed facility is 32 KLD and the waste water generated will be treated in ETP.

The power requirement for the proposed facility is 100 KW and DG set is maintained with a capacity of 100 KVA for emergency backup. The total cost of the projects is estimated to be Rs. 1.90 Crores.

Earlier presentation held in SEAC on 20th to 22nd November, 2017 referred to site visit of members. Two members visited the site and submitted the report. The provisional land agreement has been issued by BIADA on 17.07.17. SEAC advised to submit the status of the provisional land agreement with point-wise details.

Once the PP provides the information, SEAC will issue the ToR .

3. LPG Bottling Plant of M/s Hindustan Petroleum Corporation Ltd at Vill.-Konra, Barhi, Hazaribagh.

The proposal was considered by the committee to determine the "Terms of Reference (TOR)" for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006 and amendments thereafter. For this purpose the project proponent has submitted the prescribed Form - I & PFR the proposed project falls under item 6 (b) (Isolated storage & handling of hazardous chemicals) as per EIA notification, 2006.

Construction of a new LPG Bottling Plant of 120 TMTA capacity with 48 filling guns automatic electronic carousal with downstream facilities, LPG mounded bullet storage of 3x350 MT, 8 nos. of truck unloading bays and other allied facilities at Barhi, Hazaribagh. LPG product will be received through Bullet trucks from Vishakhapatnam Refinery. The plant storage capacity of LPG will be 1050 MT (3x350 MT). The power requirement for plant operations is 500 KVA. Power will be drawn from the nearest substation of Jharkhand State Electricity Board. The plant is proposed at Village- Konra, Thana No. 72, Block – Barhi, Dist.-Hazaribagh which is located at a distance of 5.5 Km from Barhi Railway Station. Ranchi Airport is at a distance of 111 Km. The plant area located at latitude 24° 18'0.82"N and longitude 85° 27'50.48"E. The project cost is Rs16150Lakhs.Total land area is 28 acres.

The project was presented by the Proponent / Consultant. All the documents were up to mark and the consultant presented the TOR..

The project proponent was asked to submit additional information :

1. CO certificate regarding class of land (whether recorded as Jangal Jhari or not)
2. DFO Certificate regarding distance from notified forest / National Park / Sanctuary/ Eco Sensitive Zone / Bio-Diversity Area.
3. RIADA Land agreement status be submitted along with the following onsite/offsite plan, emergency plan, Bleevee experience, electrical safety norms.
4. Status & type of technology specific for cathodic protection be submitted.

Once the PP provides the information, SEAC will examine the case.

4. **Expansion of Cement Grinding Unit of M/s Nuvoco Vistas Corp. Ltd (Formerly Lafarge India Ltd) from 4.6 to 6.6 MTPA at Jojobera Cement Plant at Village- Jojobera, Rahargora, Jamshedpur, East Singhbhum.**

PP was asked to submit the DFO, Elephant Project, JSR certificate regarding whether the project site is within Eco Sensitive Zone of Dalma Sanctuary or not.

Once the PP provides the information, SEAC will examine the case.

5. **LPG Bottling Plant of M/s Bharat Petroleum Corporation Ltd at Vill.-Maraphari&Gorabali, Chas, Bokaro.**

The project was presented by the Proponent / Consultant. All the documents were up to mark and the consultant presented the EIA / EMP.

The project proponent was asked to submit additional information :

1. CO certificate regarding class of land (whether recorded as Jangal Jhari or not)
2. DFO Certificate regarding distance from notified forest / National Park / Sanctuary/ Eco Sensitive Zone / Bio-Diversity Area.

Once the PP provides the information, SEAC will examine the case.

6. **Storage Capacity of LPG Bottling Plant of M/s Hindustan Petroleum Corporation Ltd at Adityapur Industrial Area, Large Sector, Vill.-Gamharia, E. Singhbhum.**

The project was presented by the Proponent / Consultant. All the documents were up to mark and the consultant presented the EIA / EMP.

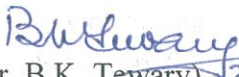
The consultant was advised to study the impact on existing road traffic with the additional traffic induced due the substantial expansion of the present facilities using relevant IRC guidelines

The project proponent was asked to submit additional information:

1. CO certificate regarding class of land (whether recorded as Jangal Jhari or not)
2. DFO Certificate regarding distance from notified forest / National Park / Sanctuary/ Eco Sensitive Zone / Bio-Diversity Area.

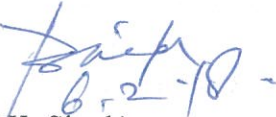
Once the PP provides the information, SEAC will examine the case.

The meeting concluded with thanks to all present.


(Dr. B.K. Tewary) 29/01/2018
Member


(S.P. Srivastava) 29.01.18
Member

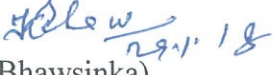

(Dr. R. N. Singh)
Member


(Y.K. Singh)
Member

(Dr. R. V. Singh)
Member

(M.S. Bhagwat)
Member


(Om Prakash)
Member Secretary


(K.P. Bhawsinka)
Chairman

The TORs prescribed for undertaking detailed EIA study are as follows:

A. Standard Terms of Reference

1. Executive Summary of the project.

2. Introduction

- i. Details of the EIA Consultant including NABET accreditation.
- ii. Information about the project proponent.
- iii. Importance and benefits of the project

3. Project Description

- i. Cost of project and time of completion.
- ii. Products with capacities for the proposed project.
- iii. If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
- iv. List of raw materials required and their source along with mode of transportation.
- v. Other chemicals and materials required with quantities and storage capacities.
- vi. Details of Emission, effluents, hazardous waste generation and their management.
- vii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)
- viii. Process description along with major equipments and machineries, process flow sheet(quantative) from raw material to products to be provided
- ix. Hazard identification and details of proposed safety systems.
- x. Expansion/modernization proposals:
 - a. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment and Forests as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, status of compliance of Consent to Operate for the ongoing existing operation of the project from SPCB shall be attached with the EIA-EMP report.
 - b. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

4. Site Details

- i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.
- ii. A toposheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco-sensitive areas and environmentally sensitive places)

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- iii. Details w.r.t. option analysis for selection of site
- iv. Co-ordinates (lat-long) of all four corners of the site.
- v. Google map-Earth downloaded of the project site.
- vi. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.
- vii. Photographs of the proposed and existing (if applicable) plant site. If existing, show photographs of plantation/greenbelt, in particular.
- viii. Landuse break-up of total land of the project site (identified and acquired), government/private - agricultural, forest, wasteland, water bodies, settlements, etc shall be included. (not required for industrial area)
- ix. A list of major industries with name and type within study area (10km radius) shall be incorporated. Land use details of the study area
- x. Geological features and Geo-hydrological status of the study area shall be included.
- xi. Details of Drainage of the project upto 5km radius of study area. If the site is within 1 km radius of any major river, peak and lean season river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of Flood Level of the project site and maximum Flood Level of the river shall also be provided. (mega green field projects)
- xii. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land.
- xiii. R&R details in respect of land in line with state Government policy

5. Forest and wildlife related issues (if applicable):

- i. Permission and approval for the use of forest land (forestry clearance), if any, and recommendations of the State Forest Department. (if applicable)
- ii. Land use map based on High resolution satellite imagery (GPS) of the proposed site delineating the forestland (in case of projects involving forest land more than 40 ha)
- iii. Status of Application submitted for obtaining the stage I forestry clearance along with latest status shall be submitted.
- iv. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden-thereon.
- v. Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the StateGovernment for conservation of Schedule I fauna, if any exists in the study area.
- vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife.

6. Environmental Status

- i. Determination of atmospheric inversion level at the project site and site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.

- ii. AAQ data (except monsoon) at 8 locations for PM10, PM2.5, SO2, NOX, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.
- iii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQQM Notification of Nov. 2009 along with - min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.
- iv. Surface water quality of nearby River (100m upstream and downstream of discharge point) and other surface drains at eight locations as per CPCB/MoEF&CC guidelines.
- v. Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF&CC, if yes give details.
- vi. Ground water monitoring at minimum at 8 locations shall be included.
- vii. Noise levels monitoring at 8 locations within the study area.
- viii. Soil Characteristic as per CPCB guidelines.
- ix. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
- x. Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule- I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.
- xi. Socio-economic status of the study area.

7. Impact and Environmental Management Plan:

- i. Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be assessed. Details of the model used and the input data used for modelling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.
- ii. Water Quality modelling - in case of discharge in water body
- iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor- cum-rail transport shall be examined.
- iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.
- v. Details of stack emission and action plan for control of emissions to meet standards.
- vi. Measures for fugitive emission control.
- vii. Details of hazardous waste generation and their storage, utilization and management. Copies of MOU regarding utilization of solid and hazardous waste in cement plant shall also be included. EMP shall include the concept of waste-minimization.

recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.

- viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.
- ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.
- x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.
- xi. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.
- xii. Action plan for post-project environmental monitoring shall be submitted.
- xiii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

8. Occupational health

- i. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers.
- ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre placement and periodical examinations give the details of the same. Details regarding last month analyzed data of above mentioned parameters as per age, sex, duration of exposure and department wise.
- iii. Details of existing Occupational & Safety Hazards. What are the exposure levels of hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved.
- iv. Annual report of health status of workers with special reference to Occupational Health and Safety.

9. Corporate Environment Policy

- i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
- ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
- iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.

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- iv. Does the company have system of reporting of non compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report.
10. Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.
11. **Enterprise Social Commitment (ESC)**
- i. Adequate funds (at least 2.5 % of the project cost) shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be included. Socio-economic development activities need to be elaborated upon.
12. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.
13. A tabular chart with index for point wise compliance of above TOR.
14. Beside the above, the below mentioned general points should also be followed:
- a) A note confirming compliance of the ToR, with cross referencing of the relevant sections/pages of the EIA report should be provided.
- b) All documents may be properly referenced with index and continuous page numbering
- c) Where data are presented in the report especially in tables, the period in which the data were collected and the sources should be indicated.
- d) Where the documents provided are in a language other than English, an English translation should be provided.
- e) The questionnaire for environmental appraisal of Cement Grinding projects as prescribed by the Ministry shall also be filled and submitted.
- f) All statutory clearances obtained for the project shall be included in the EIA report.
- g) While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M No. J-11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry should also be followed.

B. Specific Terms of Reference

1. Limestone and coal linkage documents along with the status of environmental clearance of limestone and coal mines
2. Quantum of production of coal and limestone from coal & limestone mines and the projects they cater to;
3. For large Cement Units, a 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site.

4. Present land use shall be prepared based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10 Km radius area from proposed site. The same shall be used for land used/land-cover mapping of the area.
5. If the raw materials used have trace elements, an environment management plan shall also be included.
6. Plan for the implementation of the recommendations made for the cement plants in the CREP guidelines must be prepared.
7. Energy consumption per ton of clinker and cement grinding
8. Provision of waste heat recovery boiler
9. Arrangement for use of hazardous waste

C . Other

15. Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of SEIAA, Jharkhand with reasons for such changes and permission should be sought, as the TOR may also have to be altered.
16. The prescribed TORs would be valid for a period of three years for submission of the EIA / EMP reports, as per the O.M. No. J-11015/109/2013-IA.II(M) , dated 12.01.2017.

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The TORs prescribed for undertaking detailed EIA study are as follows:

A . Standard Terms of Reference

1. Executive Summary
2. Introduction

- i. Details of the EIA Consultant including NABET accreditation
- ii. Information about the project proponent
- iii. Importance and benefits of the project

3. Project Description

- i. Cost of project and time of completion.
- ii. Products with capacities for the proposed project.
- iii. If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
- iv. List of raw materials required and their source along with mode of transportation.
- v. Other chemicals and materials required with quantities and storage capacities
- vi. Details of Emission, effluents, hazardous waste generation and their management.
- vii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)
- viii. Process description along with major equipments and machineries, process flow sheet(quantative) from raw material to products to be provided
- ix. Hazard identification and details of proposed safety systems.
- x. Expansion/modernization proposals:
 - a. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment and Forests as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, status of compliance of Consent to Operate for the on-going /existing operation of the project from SPCB shall be attached with the EIA-EMP report.
 - b. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No

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Objection Certificate and Consent to Operate (in case of units operating prior to Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

4. Site Details

- i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.
- ii. A toposheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco-sensitive areas and environmentally sensitive places)
- iii. Details w.r.t. option analysis for selection of site
- iv. Co-ordinates (lat-long) of all four corners of the site.
- v. Google map-Earth downloaded of the project site.
- vi. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.
- vii. Photographs of the proposed and existing (if applicable) plant site. If existing, show photographs of plantation/greenbelt, in particular.
- viii. Land use break-up of total land of the project site (identified and acquired), government/ private - agricultural, forest, wasteland, water bodies, settlements, etc shall be included. (not required for industrial area)
- ix. A list of major industries with name and type within study area (10km radius) shall be incorporated. Land use details of the study area
- x. Geological features and Geo-hydrological status of the study area shall be included.
- xi. Details of Drainage of the project upto 5km radius of study area. If the site is within 1 km radius of any major river, peak and lean season river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of Flood Level of the project site and maximum Flood Level of the river shall also be provided. (mega green field projects)
- xii. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land.
- xiii. R&R details in respect of land in line with state Government policy

5. Forest and wildlife related issues (if applicable):

- i. Permission and approval for the use of forest land (forestry clearance), if any, and recommendations of the State Forest Department. (if applicable)
- ii. Landuse map based on High resolution satellite imagery (GPS) of the proposed site delineating the forestland (in case of projects involving forest land more than 40 ha)

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- iii. Status of Application submitted for obtaining the stage I forestry clearance along with latest status shall be submitted.
- iv. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden-thereon.
- v. Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the State Government for conservation of Schedule I fauna, if any exists in the study area
- vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife.

6. Environmental Status

- i. Determination of atmospheric inversion level at the project site and site-specific micro- meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall
- ii. AAQ data (except monsoon) at 8 locations for PM10, PM2.5, SO2, NOX, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.
- iii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQQM Notification of Nov. 2009 along with - min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.
- iv. Surface water quality of nearby River (100m upstream and downstream of discharge point) and other surface drains at eight locations as per CPCB/MoEF & CC guidelines.
- v. Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF & CC, if yes give details.
- vi. Ground water monitoring at minimum at 8 locations shall be included.
- vii. Noise levels monitoring at 8 locations within the study area.
- viii. Soil Characteristic as per CPCB guidelines.
- ix. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
- x. Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule- I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.
- xi. Socio-economic status of the study area.

7. Impact and Environment Management Plan

- i. Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. In case the project is located on a hilly

terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be assessed. Details of the model used and the input data used for modelling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.

- ii. Water Quality modelling - in case of discharge in water body
- iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor- cum-rail transport shall be examined.
- iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.
- v. Details of stack emission and action plan for control of emissions to meet standards.
- vi. Measures for fugitive emission control
- vii. Details of hazardous waste generation and their storage, utilization and management. Copies of MOU regarding utilization of solid and hazardous waste in cement plant shall also be included. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
- viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.
- ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.
- x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.
- xi. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.
- xii. Action plan for post-project environmental monitoring shall be submitted.
- xiii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

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8. Occupational health

- i. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers
- ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre placement and periodical examinations give the details of the same. Details regarding last month analyzed data of above mentioned parameters as per age, sex, duration of exposure and department wise.
- iii. Details of existing Occupational & Safety Hazards. What are the exposure levels of hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved,
- iv. Annual report of health status of workers with special reference to Occupational Health and Safety.

9. Corporate Environment Policy

- i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
 - ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
 - iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.
 - iv. Does the company have system of reporting of non compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report
10. Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.

11. Enterprise Social Commitment (ESC)

- i. Adequate funds (at least 2.5 % of the project cost) shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be included. Socio-economic development activities need to be elaborated upon.
12. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ ATR to the notice (s) and present status of the case.
13. A tabular chart with index for point wise compliance of above TOR.

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B. SPECIFIC TERMS OF REFERENCE

1. Details on list of hazardous chemicals to be stored alongwith storage quantities at the facility, their category (as per MSIHC Rules), MSDS.
2. Mode of receiving hazardous chemicals in isolated storages and mode of their dispatch.
3. Layout plan of the storage tanks and other associated facilities.
4. Details on types and specifications of the storage facilities including tanks, pumps, piping, valves, flanges, pumps, monitoring equipments, systems for emissions control safety controls including relief systems.
5. Arrangements to control loss/leakage of chemicals and management system in case of leakage.
6. Risk Assessment & Disaster Management Plan
 - Identification of hazards
 - Consequence Analysis
 - Details of domino effect of the storage tanks and respective preventive measures including distance between storage units in an isolated storage facility.
 - Onsite and offsite emergency preparedness plan.

C. Other

1. Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of SEIAA, Jharkhand with reasons for such changes and permission should be sought, as the TOR may also have to be altered.
2. The prescribed TORs would be valid for a period of three years for submission of the EIA / EMP reports, as per the O.M. No. J-11015 / 109 / 2013 – IA.II (M), dated 12.01.2017.

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The TORs prescribed for undertaking detailed EIA study are as follows:

A . Standard Terms of Reference

1. The proposed project shall be given a unique name in consonance with the name submitted to other Government Departments etc. for its better identification and reference.
2. Vision document specifying prospective long term plan of the project shall be formulated and submitted.
3. Latest compliance report duly certified by the Regional Office of MoEF&CC for the conditions stipulated in the environmental and CRZ clearances of the previous phase(s) for the expansion projects shall be submitted.
4. The project proponent needs to identify minimum three potential sites based on environmental, ecological and economic considerations, and choose one appropriate site having minimum impacts on ecology and environment. A detailed comparison of the sites in this regard shall be submitted.
5. Executive summary of the project indicating relevant details along with recent photographs of the proposed site (s) shall be provided. Response to the issues raised during Public Hearing and the written representations (if any), along with a time bound Action Plan and budgetary allocations to address the same, shall be provided in a tabular form, against each action proposed.
6. Harnessing solar power within the premises of the plant particularly at available roof tops and other available areas shall be formulated and for expansion projects, status of implementation shall also be submitted.
7. The geographical coordinates (WGS 84) of the proposed site (plant boundary), including location of ash pond along with topo sheet (1:50,000 scale) and IRS satellite map of the area, shall be submitted. Elevation of plant site and ash pond with respect to HFL of water body/nallah/River and high tide level from the sea shall be specified, if the site is located in proximity to them.
8. Layout plan indicating break-up of plant area, ash pond, green belt, infrastructure, roads etc. shall be provided.
9. Land requirement for the project shall be optimized and in any case not more than what has been specified by CEA from time to time. Item wise break up of land requirement shall be provided.
10. Present land use (including land class/kism) as per the revenue records and State Govt. records of the proposed site shall be furnished. Information on land to be acquired including coal transportation system, laying of pipeline, ROW, transmission lines etc. shall be specifically submitted. Status of land acquisition and litigation, if any, should be provided.
11. If the project involves forest land, details of application, including date of application, area applied for, and application registration number, for diversion under FCA and its status should be provided along with copies of relevant documents.

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12. The land acquisition and R&R scheme with a time bound Action Plan should be formulated and addressed in the EIA report.
13. Satellite imagery and authenticated topo sheet indicating drainage, cropping pattern, water bodies (wetland, river system, stream, nallahs, ponds etc.), location of nearest habitations (villages), creeks, mangroves, rivers, reservoirs etc. in the study area shall be provided.
14. Location of any National Park, Sanctuary, Elephant/Tiger Reserve (existing as well as proposed), migratory routes / wildlife corridor, if any, within 10 km of the project site shall be specified and marked on the map duly authenticated by the Chief Wildlife Warden of the State or an officer authorized by him.
15. Topography of the study area supported by toposheet on 1:50,000 scale of Survey of India, along with a large scale map preferably of 1:25,000 scale and the specific information whether the site requires any filling shall be provided. In that case, details of filling, quantity of required fill material; its source, transportation etc. shall be submitted.
16. A detailed study on land use pattern in the study area shall be carried out including identification of common property resources (such as grazing and community land, water resources etc.) available and Action Plan for its protection and management shall be formulated. If acquisition of grazing land is involved, it shall be ensured that an equal area of grazing land be acquired and developed and detailed plan submitted.
17. A mineralogical map of the proposed site (including soil type) and information (if available) that the site is not located on potentially mineable mineral deposit shall be submitted.
18. Details of fly ash utilization plan as per the latest fly ash Utilization Notification of GOI along with firm agreements / MoU with contracting parties including other usages etc. shall be submitted. The plan shall also include disposal method / mechanism of bottom ash.
19. The water requirement shall be optimized (by adopting measures such as dry fly ash and dry bottom ash disposal system, air cooled condenser, concept of zero discharge) and in any case not more than that stipulated by CEA from time to time, to be submitted along with details of source of water and water balance diagram. Details of water balance calculated shall take into account reuse and re-circulation of effluents.
20. Water body/Nallah (if any) passing across the site should not be disturbed as far as possible. In case any Nallah / drain is proposed to be diverted, it shall be ensured that the diversion does not disturb the natural drainage pattern of the area. Details of proposed diversion shall be furnished duly approved by the concerned Department of the Stat.
21. It shall also be ensured that a minimum of 500 m distance of plant boundary is kept from the HFL of river system / streams etc. and the boundary of site should also be located 500 m away from railway track and National Highways.
22. Hydro-geological study of the area shall be carried out through an institute/ organization of repute to assess the impact on ground and surface water regimes. Specific mitigation measures shall be spelt out and time bound Action Plan for its implementation shall be submitted.
23. Detailed Studies on the impacts of the ecology including fisheries of the River/Estuary/Sea due to the proposed withdrawal of water / discharge of treated wastewater into the River/Sea etc shall be carried out and submitted along with the EIA Report. In case of requirement of marine impact assessment study, the location of intake and outfall shall be clearly specified along with depth of water drawl and discharge into open sea.

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24. Source of water and its sustainability even in lean season shall be provided along with details of ecological impacts arising out of withdrawal of water and taking into account inter-state shares (if any). Information on other competing sources downstream of the proposed project and commitment regarding availability of requisite quantity of water from the Competent Authority shall be provided along with letter / document stating firm allocation of water.
25. Detailed plan for rainwater harvesting and its proposed utilization in the plant shall be furnished.
26. Feasibility of near zero discharge concept shall be critically examined and its details submitted.
27. Optimization of Cycles of Concentration (COC) along with other water conservation measures in the project shall be specified.
28. Plan for recirculation of ash pond water and its implementation shall be submitted.
29. Detailed plan for conducting monitoring of water quality regularly with proper maintenance of records shall be formulated. Detail of methodology and identification of monitoring points (between the plant and drainage in the direction of flow of surface / ground water) shall be submitted. It shall be ensured that parameter to be monitored also include heavy metals. A provision for long-term monitoring of ground water table using Piezometer shall be incorporated in EIA, particularly from the study area.
30. Socio-economic study of the study area comprising of 10 km from the plant site shall be carried out through a reputed institute / agency which shall consist of detail assessment of the impact on livelihood of the local communities.
31. Action Plan for identification of local employable youth for training in skills, relevant to the project, for eventual employment in the project itself shall be formulated and numbers specified during construction & operation phases of the Project.
32. If the area has tribal population it shall be ensured that the rights of tribals are well protected. The project proponent shall accordingly identify tribal issues under various provisions of the law of the land.
33. A detailed CSR plan along with activities wise break up of financial commitment shall be prepared. CSR component shall be identified considering need based assessment study and Public Hearing issues. Sustainable income generating measures which can help in upliftment of affected section of society, which is consistent with the traditional skills of the people shall be identified. Separate budget for community development activities and income generating programmes shall be specified.
34. While formulating CSR schemes it shall be ensured that an in-built monitoring mechanism for the schemes identified are in place and mechanism for conducting annual social audit from the nearest government institute of repute in the region shall be prepared. The project proponent shall also provide Action Plan for the status of implementation of the scheme from time to time and dovetail the same with any Govt. scheme(s). CSR details done in the past should be clearly spelt out in case of expansion projects.
35. R&R plan, as applicable, shall be formulated wherein mechanism for protecting the rights and livelihood of the people in the region who are likely to be impacted, is taken into consideration. R&R plan shall be formulated after a detailed census of population based on socio economic surveys who were dependant on land falling in the project, as well as, population who were dependant on land not owned by them.

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36. Assessment of occupational health and endemic diseases of environmental origin in the study area shall be carried out and Action Plan to mitigate the same shall be prepared.
37. Occupational health and safety measures for the workers including identification of work related health hazards shall be formulated. The company shall engage full time qualified doctors who are trained in occupational health. Health monitoring of the workers shall be conducted at periodic intervals and health records maintained. Awareness programme for workers due to likely adverse impact on their health due to working in non-conducive environment shall be carried out and precautionary measures like use of personal equipments etc. shall be provided. Review of impact of various health measures undertaken at intervals of two to three years shall be conducted with an excellent follow up plan of action wherever required.
38. One complete season site specific meteorological and AAQ data (except monsoon season) as per latest MoEF & CC Notification shall be collected and the dates of monitoring shall be recorded. The parameters to be covered for AAQ shall include PM10, PM2.5, SO2, NOx, CO and Hg. The location of the monitoring stations should be so decided so as to take into consideration the upwind direction, predominant downwind direction, other dominant directions, habitation and sensitive receptors. There should be at least one monitoring station each in the upwind and in the pre - dominant downwind direction at a location where maximum ground level concentration is likely to occur.
39. In case of expansion project, air quality monitoring data of 104 observations a year for relevant parameters at air quality monitoring stations as identified/stipulated shall be submitted to assess for compliance of AAQ Standards (annual average as well as 24 hrs).
40. A list of industries existing and proposed in the study area shall be furnished.
41. Cumulative impacts of all sources of emissions including handling and transportation of existing and proposed projects on the environment of the area shall be assessed in detail. Details of the Model used and the input data used for modeling shall also be provided. The air quality contours should be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any. The windrose and isopleths should also be shown on the location map. The cumulative study should also include impacts on water, soil and socio-economics.
42. Radio activity and heavy metal contents of coal to be sourced shall be examined and submitted along with laboratory reports.
43. Fuel analysis shall be provided. Details of auxiliary fuel, if any, including its quantity, quality, storage etc should also be furnished.
44. Quantity of fuel required, its source and characteristics and documentary evidence to substantiate confirmed fuel linkage shall be furnished. The Ministry's Notification dated 02.01.2014 regarding ash content in coal shall be complied. For the expansion projects, the compliance of the existing units to the said Notification shall also be submitted.
45. Details of transportation of fuel from the source (including port handling) to the proposed plant and its impact on ambient AAQ shall be suitably assessed and submitted. If transportation entails a long distance it shall be ensured that rail transportation to the site shall be first assessed. Wagon loading at source shall preferably be through silo/conveyor belt.
46. For proposals based on imported coal, inland transportation and port handling and rail movement shall be examined and details furnished. The approval of the Port and Rail Authorities shall be submitted.

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47. Details regarding infrastructure facilities such as sanitation, fuel, restrooms, medical facilities, safety during construction phase etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase should be adequately catered for and details furnished.
48. EMP to mitigate the adverse impacts due to the project along with item - wise cost of its implementation in a time bound manner shall be specified.
49. A Disaster Management Plan (DMP) along with risk assessment study including fire and explosion issues due to storage and use of fuel should be carried out. It should take into account the maximum inventory of storage at site at any point of time. The risk contours should be plotted on the plant layout map clearly showing which of the proposed activities would be affected in case of an accident taking place. Based on the same, proposed safeguard measures should be provided. Measures to guard against fire hazards should also be invariably provided. Mock drills shall be suitably carried out from time to time to check the efficiency of the plans drawn.
50. The DMP so formulated shall include measures against likely Fires/Tsunami/Cyclones/Storm Surges/ Earthquakes etc, as applicable. It shall be ensured that DMP consists of both On-site and Off-site plans, complete with details of containing likely disaster and shall specifically mention personnel identified for the task. Smaller version of the plan for different possible disasters shall be prepared both in English and local languages and circulated widely.
51. Detailed scheme for raising green belt of native species of appropriate width (50 to 100 m) and consisting of at least 3 tiers around plant boundary with tree density of 2000 to 2500 trees per ha with a good survival rate of around 80% shall be submitted. Photographic evidence must be created and submitted periodically including NRSA reports in case of expansion projects. A shrub layer beneath tree layer would serve as an effective sieve for dust and sink for CO₂ and other gaseous pollutants and hence a stratified green belt should be developed.
52. Over and above the green belt, as carbon sink, plan for additional plantation shall be drawn by identifying blocks of degraded forests, in close consultation with the District Forests Department. In pursuance to this the project proponent shall formulate time bound Action Plans along with financial allocation and shall submit status of implementation to the Ministry every six months.
53. Corporate Environment Policy
- Does the company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
 - Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
 - What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions. Details of this system may be given.
 - Does the company has compliance management system in place wherein compliance status along with compliances / violations of environmental norms are reported to the CMD and the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.

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All the above details should be adequately brought out in the EIA report and in the presentation to the Committee

54. Details of litigation pending or otherwise with respect to project in any Court, Tribunal etc. shall invariably be furnished.
55. Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of SEIAA, Jharkhand with reasons for such changes and permission should be sought, as the TOR may also have to be altered.
56. The prescribed TORs would be valid for a period of three years for submission of the EIA / EMP reports, as per the O.M. No. J-11015/109/2013-IA.II(M) , dated 12.01.2017.

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[Signature] *R. S. Das*

Sri K. P. Bhawsinka, Chairman

1. Jharkhand has almost 40% Mineral wealth of nation and is seen as important focus areas of development of state economy. Mining of Minerals including Minor Minerals provide useful resources for the state of Jharkhand. Various types of mineral resources provide ample opportunities for development of mining sector in state.
2. However, the mining and mineral industry faces some of the most difficult challenges amongst entire industrial sector, currently confronted with dual tasks of developing its economy at faster pace as also protecting its and physical environment and ecological system sustainably.

Mandated commitments of Country

It is pertinent to mention about the Nation's commitment towards Agreement in Paris Convention which seeks low carbon climate resilient development pathway linked with implementing all SDGs in a time bound manner by 2030. Climate Change resilience needs to be a the part of the comprehensive road map to fulfil all SDGs

The crucial goal for accelerating economic development for transforming society to a completely well off society in next few years stems from plurality of problems and challenges associated with the complex nature of Mineral Extraction Industry.

SOME INTERRELATED ENVIRONMENTAL PROTECTION, CLIMATE CHANGE & SUSTAINABLE DEVELOPMENT CHALLENGES ASSOCIATED WITH EXTRACTION INDUSTRY

- Protection of the Natural and Physical Environment within the limits of its carrying capacity without any threat to the existing eco-system.
- Effective and efficient utilization of natural resources to arrest its depletion.
- Addressing and initiating climatic actions and climate resilience endeavours Meeting all sustainable Development goals in a time bound manner to fulfil our national commitments.
- Controlling and lowering releases and emissions of pollutants through more meaningful, effective and efficient utilization of natural and manmade resources.
- Ensure inter generational equity of mined resources using innovative deployment of technologies and through selective extraction of small volume high value added minerals for further development for spin offs effects on economy.
- Meeting concerns of economic, technologies and legislatives dimensions for greater societal impacts in direction of betterment of quality of life of people

These challenges require a variety of strategic approaches and interventions to be deployed in search of appropriate solutions aligned with priorities and development agenda of the state.

Note: Detailed review is not possible to work from my home office in absence of the resources required for policy analysis and review. I feel strongly the matter could have easily discussed in 50th the SEAC conducted during 20-22.

Dr. B.K. Tewary, Member

1 Introduction --- Sustainable devel. ---exploitation using Best Practice Mining towards employment generation , mitigating the post mining land degradation and addressing the grievances of the local habitations and sustaining the ecological balance of the area . In many areas of

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Jharkhand illegal mining and degradation of forest habitat has led migration of animals and man – animal conflict .

A major portion of minerals produced are exported to other places in raw form only which needs value addition and utilization of wastes otherwise disturbs the water courses .

District survey reports --- In line with the GSI prepared DSR the state of Jharkhand will be compiled in each district keeping in view the mineable resources and forest as well .

22. not make adequate be replaced by ----strictly implement the concurrent process of mining and rehabilitation/ reclamation / restoration measures and minimize mining – forest conflicts .

Compliance mechanism of EC conditions provided by DEIAA/ SEIAA/ EAC will be strictly implemented

Conclusion ---Mining is a site specific and ecologically sensitive industrial activity and at the same time high potential of economic development and provide employment opportunities to the state . Extensive unplanned mining activities have disturbed the original landscape and thereby affected the ecological balance in many areas .

As such the efforts of new mineral policy is to have best practice mining so that goal of sustainable developed is achieved .

Dr. R.N. Singh, Member

1. First Para of INTRODUCTION should be rewritten as Draft policy of Jharkhand includes minerals, minor minerals (including rocks, some rocks are mono-minerallic), coal, coal Bed Methane, precious and semi- precious minerals like gold, copper etc.
2. Geological Set Up is also not well written as “Singhbhum Thrust Zone” and “Tamar Khatra Fault” are better known or described or accepted terms are “ Singhbhum Shear Zone” and “Tamar- Porapahar Shear” (North Singhbhum Shear Zone).
3. Mineral estimated reserves and grades may be updated in consultation with the Geological Survey of India, Jharkhand Circle.
4. District resource report may be compiled by taking data available in (a) the District Resource Survey Maps of different districts of Jharkhand published by the Geological Survey of India, (b) Geology and Mineral resource in Bihar and Jharkhand published by Geological Survey of India, Miscellaneous publication No. 30,(c) Geology and Mineral resources of Bihar and Jharkhand by T.M.Mahadevan, published by Geological Society of India, Bangalore.
5. A copy of the compliance Report of the Environment management plan and mine closure plan may also be sent to SEIAA, Jharkhand.

Sri M. S. Bhagwat, Member

Paragraph no, Draft Mineral Policy 2017	Existing Provision	Suggestions/Inclusions
No.6, Survey and Exploration	Page no. 11/24, “A Mineral Development..... Formed	To be integrated with Jharkhand District DMF to enable it to give a practical shape & to deliver better results and achieve goals as per notification no 218, Mineral

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Sri M. S. Bhagwat

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		Foundation (Trust)Rules 2016 vide Gazette no 218, dated 22 March 2016 , Ranchi,to strengthen the Mineral Policy and the
No. 4, Existing Operative & Non Operative Mines	Page no. 10/24, "Presentlynon operative	Inclusion of suitable rational Policy Interventions as may be considered appropriate to enable to rejuvenate referred to 211 nos. non operative mines and 1046 non operative Minor Mineral Mining Leases for various reasons to augment revenue generation, mineral production, employment generation and livelihood options. <i>This is absent and does not prescribe remedial measures in present form.</i>
No.9,Grant of Concessions	Page no. 12/24,"The State	Inclusion of an appropriate time bound schedule to implement the provisions of this section considering fulfillment of all necessities/ statutory requirements to showcase transparency.
No. 19, Environmental..... Issues	Page no. 17/24,The State.....	Inclusion of mention of SEIAA/SEAC as important statutory link in ensuring timely release / approvals /grantof EC for the logical end necessary in Mining Start ups.
No. 21, Relief & Rehabilitation	Page no. 18/24 The State.....	Inclusion of Interlinking of DMF and provisions there in to give it practical shape and physical entity under Mineral Foundation (Trust)Rules 2016
No.25, H R Development....	Page no. 20/24,Vocational related programmes	Inclusion of SEIAA/SEAC also as an important body along with Department of Geology & Mines in the chain of approvals for mining start ups to have an integrated role in mining industry
Proposed No. 27, Development of District level Forum "	Suggested for inclusion	Policy Interventions for Development of Forum at District Level/State Level comprising representatives of Proponents/Mine Owners /Regulators (DM/ CO /DFO/DMO/SEIAA/SEAC/SPCB to discuss and sort out issues in speedy decision making and

		<p>ensuring timely deliverables as required which is often ground for shuttling and stand stilling of matters within the regulatory bodies.</p> <p><i>An integrated and unified approach shall prevent compartmental views (which is prevalent and common hurdle) and promote smooth and timely deliverables as Policy Objectives.</i></p>
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R. S. Swamy

**Site Inspection Report of Tiruldih Sand Mining Project (Balu Ghat),
Suwarnrekha River, Village-Tiruldih, PS-Tiruldih, Tehsil-Kakaru,**

District Saraikela –Kharsawan, Jharkhand.

1. Backdrop --- The large scale requirements of sand and gravel for use of infrastructural development the MOEFCC has taken policy initiatives and the regulatory measures to safeguard the health of river system and also sustainable development of the region. In this regard Sustainable Sand Mining Management Guidelines have been issued to help the Department of Mines and Geology, SPCB, SEAC/SEIAA and Stake holders to follow and ensure Sustainable sand mining in the country.

In pursuance of letter no 209/ dated 18.10.2017 by SEAC a committee comprised of Dr. B.K. Tiwary and Shri U.P. Singh, members SEAC, Jharkhand visited Tiruldih Balughat on 24.10.2017 and the inspection report has been prepared considering complain from the villagers regarding anomalies in the site selection for the said sand mining block, documentations and clearance process and its implementation process flouting the existing rules, regulations and guidelines of Department of Mines and Geology, MOEF& CC .

1.0 Project status -----

1.1. Name of the proponent; M/S Mata Enterprises, Prop: Shri Tarun Kumar Dey, Kanderbera, PS - Chandil, District- Saraikela-Kharsawan , Jharkhand .

1.2.The allotment of this Balughat was accorded by the DC Saraikela- Kharsawan to the proponent by the process of bidding on 16.03.2015 vide letter no-697/M dated 21.03.2015 by District Mining Office, Saraikela-Kharsawan , Department of Mines and Geology, Government of Jharkhand.

1.3. The allotted Balughat comprising an area of 18.16 Acre (7.349 Ha) at the khasra no 123 and plot no 749 under Tiruldih mauza was selected based on the District Mining Department and the lease was implemented after the other clearances submitted.

1.4. Mine plan was prepared and approved by the concerned Department and the EC granted vide letter no EC/SEIAA/2015-16/849/2015/1355 dated 17.08.2015 by SEIAA, Jharkhand.

1.5 Mining of sand was carried out before the monsoon but presently, after the rainy season it has been informed that the work is suspended on complain made by the villagers of the area, but no such order from competent authority could be traced in the file.

2. Scope of the work ----- To evaluate the status of the Balughat site from the existing road bridge on the river Suvarnarekha and the resources availability, environmental, and socioeconomic impact due to mining of sand.

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2.1: Study and scrutinizing of all documents including of Allotment , Mining plan, EC issued by SEIAA ,LOI from District Mining Office, Saraikela-Kharsawan , maps and all relevant documents available in the file belonging to Tiruldih Balughat.

2.4. Site visit and field data collection conducted with the help of GPS Map 64S Garmin make and data collected from the representative of proponent and villagers for data input of ground reality regarding boundary of the lease.

2.5. Geo-referencing of the allotted lease boundaries of plot no 749 and khasra number 123 of village panchayat –Tiruldih, District Saraikela-Kharsawa, Jharkhand and coordinates given in form 1(please refer figure-1).

2.6 No responsible officer neither from District Mining office nor from Circle office were present except a bearer with the file from mining office. In spite of SEAC letter to DC, Saraikela-Kharsawan and telephonic requests to District Mining officer and Assistant Mining Officer. As per the telephonic conversation the DMO was on leave and entrusted the AMO to participate in the site inspections and provide the necessary inputs.

A large number of residents of the village were present and cooperated in surveying and expressed their opinion freely. .

3. Findings:

3.1 A large road bridge exists across the leased plot no 749 which is shown in the Google earth image and its KML file (Map-2). No pillar demarcation of the lease boundaries were found at the site.

3.2 The co - ordinates of the boundaries were determined by recording GPS data and geo-referencing the GPS data of bridge ends, confluence of streams with Subarnrekha River and junction points of roads and corner of the plots.

3.3 The presence of this large structure such as the said bridge was ignored by the Department of mines and the sand mining site was selected for sand mining auction. However, as per the DC Saraikela letter no 366/Mine dated 11. 02.2015 of itself addressed to the Director, Information and Public Relations Department Suchna Bhawan, Andre House, Ranchi to provide wide publicity for the auction of Balughat of the district itself, well documented the presence of the said bridge. The document pirating to the auction process and conditions, para number 16 and 19 clearly mentions that safe distance of 50 meters be left for sand evacuations.

3.4 The District Mining Officer did not follow the proper guidelines and not even felt it necessary for considering existing mining rules of Jharkhand minor minerals act 2004 where no mining activity is permissible within the radius of 50 m from public works like a large bridge. He has also ignored the consideration of existing guidelines by SEIAA for EC clearances of sand

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24/11/2017

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mining. The concerned officials should have visited the site and followed the scientific methods to identify and prepare the sand mining block of Tiruldih for the auction process as per the existing norms and guidelines. A site inspection report from CO, Kukdu, Saraikela-Kharsawa district vide letter no. 155/dated 11.05.2016 demarcated on map and directed to carry out sand mining leaving aside 50 m as a safety zone on each side of the bridge.

3.5. SEIAA, Jharkhand in their minutes of the meeting dated 07.05.2013 has set guidelines regarding sand mining under para5 (5) which quote: " नदी के upstream एवं downstream में रेल/सडक पुलीया, जल निकासी (wires) जलागम क्षेत्र (Water Intake) की खनन परिसर से दूरी 500 मीटर से कम न हो।"

3.6. The then SEIAA/SEAC committees have even ignored their own framed above guidelines for sand mining and issued EC for the said project of Tiruldih Sand Mining project vide Letter no. EC/SEIAA/2015=16/849/2015/1355 dated 17.08.2015 based on DMO and CO reports only.

4. Conclusion;

4.1. The District Mining office, Saraikela-Kharsawan should be held responsible primarily for irregularities in allotment of the site of Tiruldih sand mining to M/S Mata Enterprises (Prop: Shri Tarun Kumar Dey) as they have neither provided the resource area of sand mining for the said auction nor shifted /bifurcated the mining blocks as per the required distance considerations as per the above mentioned guidelines of the MOEF & CC.

4.2. The then SEIAA/SEAC committee who issued EC for the Tiruldih Sand mining Project should also be held responsible for not adhering and ignoring their set guidelines of SEIAA dated 07.05.2013

4.3. It is concluded that at this stage the authorities should correctly survey and modify the allotment of the sand mining block by shifting or bifurcating the said sand mining lease area away from the bridge considering the latest sand mining guidelines. This will not only help in overcoming the losses of government revenue and also provide relief to proprietor's investment. The department of mines and geology may be asked to rectify their allotment letter based on the changed site conditions and the EC accorded earlier may be re - endorsed as per the new demarcation from SEAC/ SEIAA.

5. Recommendations -----

There is a gross error in site selection of the area for sand mining and irregularities in the demarcation of the area of auction and allotment. The proper scientific method along with site survey should have been conducted. The local and state administration on the same information should have been adopted for the bidding of the allotted the site. The than SEAC/SEIAA also overlooked the EC process and various anomaly exists in the order.


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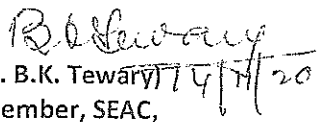
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Even on conversation with the villagers during the site visit the sand mining was shown priority for socioeconomic development of the region, though not at the cost of any harm to bridge and environment. Keeping these issues in mind, a thorough GPS SURVEY was conducted by us and confirmed the availability of sand resources beyond the stipulated distance from the existing road bridge in that segment of Subarnrekha river.

In view of this, we finally recommend to modify the official allotment order the mining plan including site map as well as the EC granted.


(Uday Pratap Singh) 29/11/2017
Member, SEAC,
Jharkhand


(Dr. B.K. Tewary) 14/11/20
Member, SEAC,
Jharkhand

अंचल अधिकारी का कार्यालय, कुकड़ू।

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प्रेषक,

अंचल अधिकारी
कुकड़ू।

सेवा में,

सहायक खनन पदाधिकारी
सरायकेला-खरसावाँ।

कुकड़ू, दिनांक ...11/05/16

विषय :- सरायकेला-खरसावाँ जिलान्तर्गत कुकड़ू प्रखण्ड के ग्राम पंचायत तिरुलडीह, के मौजा तिरुलडीह, स्थित स्वर्णरेखा नदी, के भूखण्ड / प्लॉट संख्या 749, के रकबा 18.16 एकड़ क्षेत्र पर अवस्थित बालू घाट का सीमांकन के सम्बन्ध में।

प्रसंग :- भवदीय पत्रांक 304/सरायकेला, दिनांक 04.02.2016.

महाशय,

उपर्युक्त विषयक प्रसंगाधीन पत्र के अलोक में कहना है कि विषयान्तर्गत क्षेत्र मेमर्स माता इन्टरप्राइजेज, प्रो0 श्री तरुण कुमार दे, पिता स्व0 दुर्गा पद दे, ग्राम + पो0 कान्द्रबेड़ा, थाना - चारण्डल, जिला - सरायकेला-खरसावाँ ग्राम पंचायत तिरुलडीह, के मौजा तिरुलडीह, स्थित स्वर्णरेखा नदी, के भूखण्ड / प्लॉट संख्या 749, के रकबा 18.16 एकड़ क्षेत्र पर अवस्थित बालू घाट का सीमांकन अंचल आर्षान द्वारा मापी कराया गया है। ट्रेस नक्शा का मूल प्रति एवं मूल प्रतिवेदन संलग्न कर भेजा जा रहा है।

कृपया प्राप्ति स्वीकार किया जाय।

अनुलग्नक :- 1. ट्रेस नक्शा 01(एक) मूल प्रति। एवं

2. मापी प्रतिवेदन 01 (एक) प्रति।

विश्वासभाजन



अंचल अधिकारी
कुकड़ू।

सेवा में
अवल अधिकारी
कुड्डू

विषय :- तिरुल्वीट पंचायत अंतर्गत मौजा तिरुल्वीट में सुवर्णरेखा नदी पर अवस्थित बालूघाट का मापी सम्बन्धी प्रतिवेदन

11/05/16 मधुशयम

आदेशानुसार दिनांक 04/05/16 को तिरुल्वीट पंचायत अंतर्गत मौजा तिरुल्वीट में सुवर्णरेखा नदी पर अवस्थित बालूघाट खाता नं० 123 प्लॉट नं० 749 किसम नदी रकबा 18.16 एकड़ आबेदक तरुण कुमार के को बालूघाट बन्दोवस्ती भूमि का एकका कर्मचारी के साथ स्थल जाकर घल सर्वे नक्शा एवं लीज दस्तावेज में संलग्न नक्शा तथा सहायक खनन पदाधिकारी सशत्रुकेला-खरसावाँ द्वारा अनुमोदित नक्शा से मिलान कर मौजा तिरुल्वीट बालूघाट का मापी कर चिह्नित कर दिया गया। उक्त बालूघाट स्थल पर पुल भी बना हुआ है लीज दस्तावेज में उल्लेखित अनुसार पुल के दोनों तरफ 50मीटर करके सुरक्षित जगह का भी चिह्नित कर दिया गया है जो देश नक्शा में लाल रंग से दर्शायी गयी है। लीज बन्दोवस्ती बालूघाट को देश नक्शा में हरा रंग से दर्शायी गयी है। सहायक खनन पदा. सशत्रुकेला-खरसावाँ द्वारा अनुमोदित नक्शा के अनुसार तिरुल्वीट बालूघाट में दर्शायी गयी भूमि मौजा तिरुल्वीट खाता नं० 123 प्लॉट 749/अ० 7.82 एकड़ एवं मौजा तिरुल्वीट खाता नं० 11 खाता नं० 89 प्लॉट नं० 273 रकबा 10.3 कुल रकबा 18.16 एकड़ भूमि का भी चिह्नित कर दिया गया है जिसमें बालू उद्योग का कार्य चल रहा है। उक्त भूमि को देश नक्शा में पीला रंग से दर्शायी है। मापी के समय पंचनामा में दस्तावेजित पंजी एवं जनप्रतिनिधि विभाग भी उपस्थित थे। मापी में किसी प्रकार

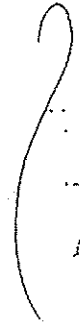
की आपत्ति नहीं हुई।

अतः पंचनामा मूल प्रति एवं देश नक्शा की प्रति संलग्न करते हुए प्रीमान के संबंध में कार्यवाही हेतु मापी प्रतिवेदन समर्पित।

संलग्न

- 1. पंचनामा मूल प्रति - 1
- 2. देश नक्शा - 2

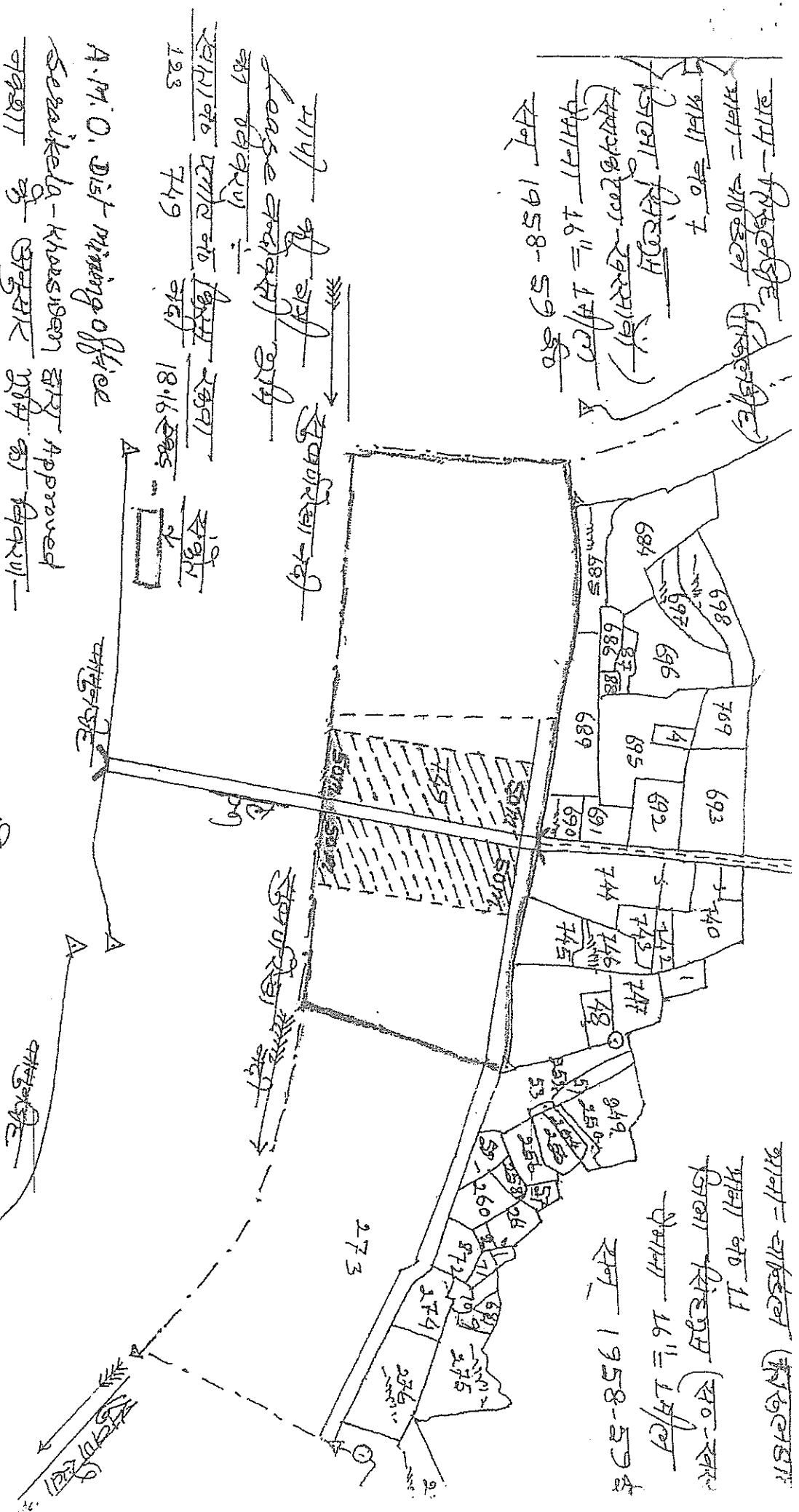
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 प्लॉट नं० 7
 विभाग फिरोजपुर
 (फिरोजपुर-खसराबंदी)
 प्लॉट नं० 16" = 17/10
 संन 1958-59 की



गांव - चोडर (फिरोजपुर)
 प्लॉट नं० 11
 विभाग फिरोजपुर (सं-खसराबंदी)
 प्लॉट नं० 16" = 17/10
 संन 1958-59 की

ग्राम - चोडर
 प्लॉट नं० 7
 विभाग फिरोजपुर
 (फिरोजपुर-खसराबंदी)
 प्लॉट नं० 16" = 17/10
 संन 1958-59 की

A.M.O. Dist Mining Office
 Sevakela-Khasra Band approved
 कांठवाडी के खसराबंदी ग्राम की विवरण -
 प्लॉट नं० 123 का क्षेत्रफल 7.82 एकर
 कांठवाडी 123 का क्षेत्रफल 18.16 एकर
 कांठवाडी 89 का क्षेत्रफल 273-10.34 एकर

05/5/2011
 Andakul Khan

Circle of Field
 Kulkarni

७/ ११/१६

आज दिनांक ०५/०५/१६ को तिरुवञ्जिए पंचायत अक्षरगत
 मौजा तिरुवञ्जिए भाना - तिरुवञ्जिए जिला सरायकेला - खरसावाँ
 कारखण्ड को अक्षरगत स्वर्णरेखा नदी में अवस्थित
 कालुघाट (तिरुवञ्जिए) का खाता नं० १२३ एमौर नं० ७५९
 रकबा १८.१६ एकड़ लीज भूमि का पशुधारी एवं
 रजस्व कर्मचारी तथा गौव के पंच मद्राणों की
 उपस्थिति में मापी क्रिया। लीज रकबा में मौजा
 तिरुवञ्जिए भाना नं० ७ खाता नं० १२३ एमौर नं० ७५९
 रकबा १८.१६ एकड़ अंकित है। अर्थात् लीज
 Approved नक्शा में दर्शायी गयी भूमि
 में मौजा तिरुवञ्जिए भाना नं० ११ के एमौर
 नं० २७३ का रकबा भी सम्मिलित है। उक्त

अक्षरगत भूमि का हाल सर्वे नक्शा के अनुसार
 नार्ड नक्सा-०३ एवं दोनो तरफ ५० मीटर छोड़कर
 मापी कर चिन्हित कर दिमा गया है। मापी
 में किसी प्रकार की आपत्ति नहीं छुई।

प्रधान-कुकरु
 पंचायत-तिरुवञ्जिए
 नार्ड नक्सा - ०२
 पंचायत-तिरुवञ्जिए
 नार्ड नक्सा - ०२
 पंचायत-तिरुवञ्जिए

उपस्थित ग्रामीणों का हस्ताक्षर आवेदक का हस्ताक्षर

Tanum An. Day
 ०५.०५.१६

- ① चरनी प्रामाणिक
- ② अक्षरगत नदी

Nepal. ek. Mahato

Kalinoli लणाराम सरायकेला-खरसावाँ
 (झारखण्ड)
 पंचायत पथिति सरायकेला
 पंचायत : तिरुवञ्जिए - ०१
 पंचायत नक्सा

पंचायत पथिति सरायकेला
 पंचायत नक्सा
 नार्ड नक्सा - ०२
 पंचायत-तिरुवञ्जिए

5) Asham Ansari

6) Vivek Chandra Mahato

7) ~~अनिल महतो~~

8) Kamfado Gope

9) Amardeep Mahato

10) अनिल महतो

11) ~~अनिल महतो~~

12) ~~अनिल महतो~~

13) K.K. Koiry

14) ~~कुलरा साव~~

15) ~~अनिल महतो~~

16) Palani Mahato


17) Narayani Singhwanda

18) Pawan Pr Singh

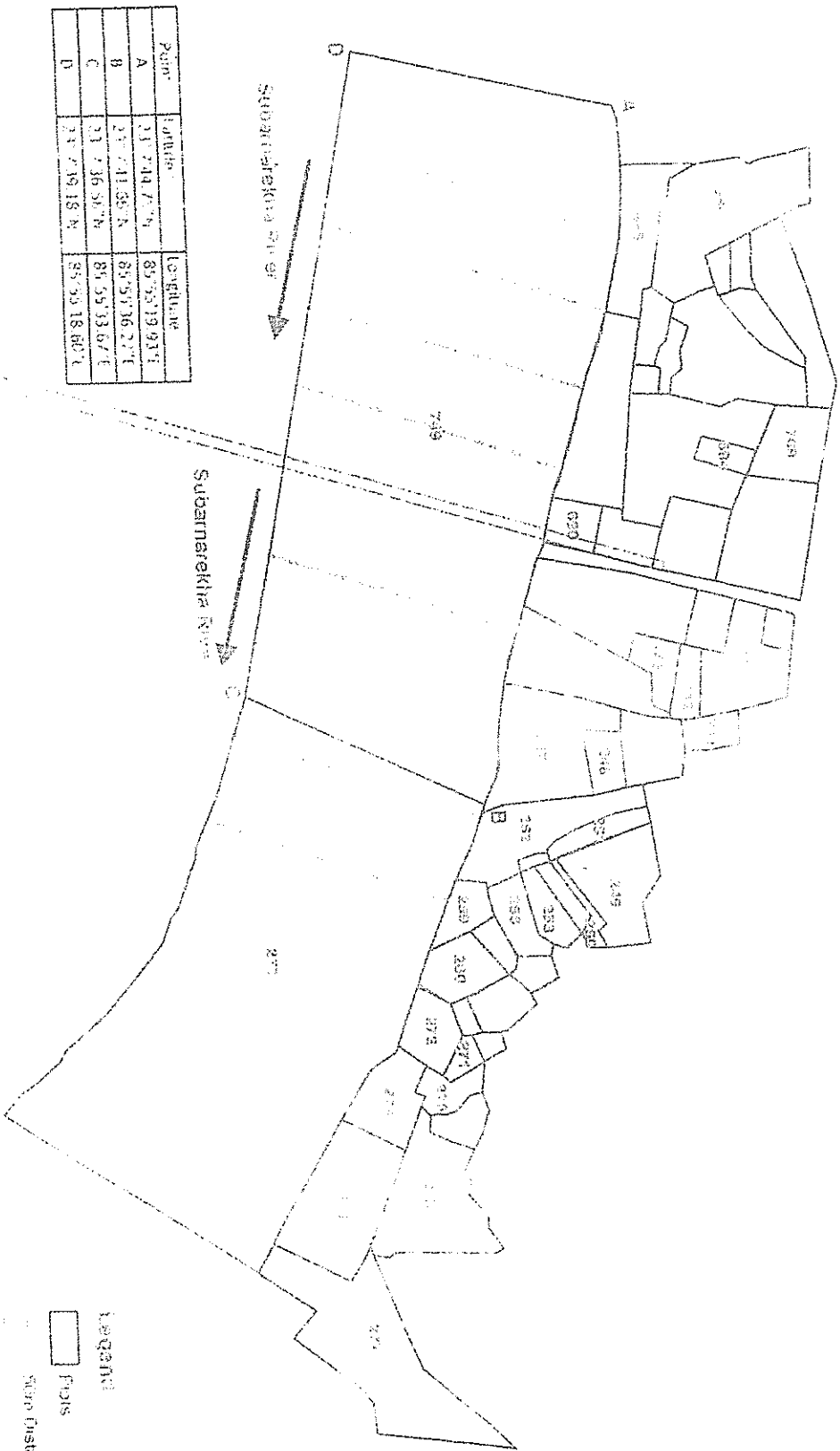
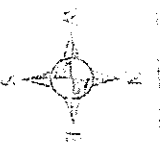
19) Manish Kumar

20) ~~अनिल महतो~~

21) श्रीरामेश्वर महतो

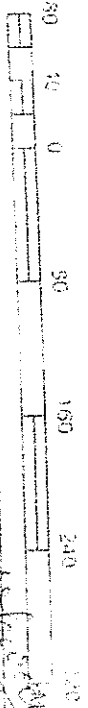

04/05/16
Amin

TRUSS BRIDGE GROUND MAP



Point	Latitude	Longitude
A	23° 24.7' N	85° 53.933' E
B	23° 24.85' N	85° 53.627' E
C	23° 26.58' N	85° 53.67' E
D	23° 29.18' N	85° 53.1860' E

Area 7.310 Ha, Khastia No. 123, Plot No. 749



Prepared by
 Subamarekha Bridge
 Project

LEGEND
 [Symbol] Points
 [Symbol] Span Distance from Bridge
 [Symbol] Bridge
 A 23



12/10/2017

TIRULDIH BALU GHAT MAP

- Legend**
- Distance line from Endtip
 - Bridge
 - Water Area
 - PLOTS
 - Sirkadh
 - Tiruldih Railway Station



12/10/2017
 Tiruldih Balu Ghat
 Tiruldih Railway Station

12/10/2017
 Tiruldih Balu Ghat
 Tiruldih Railway Station



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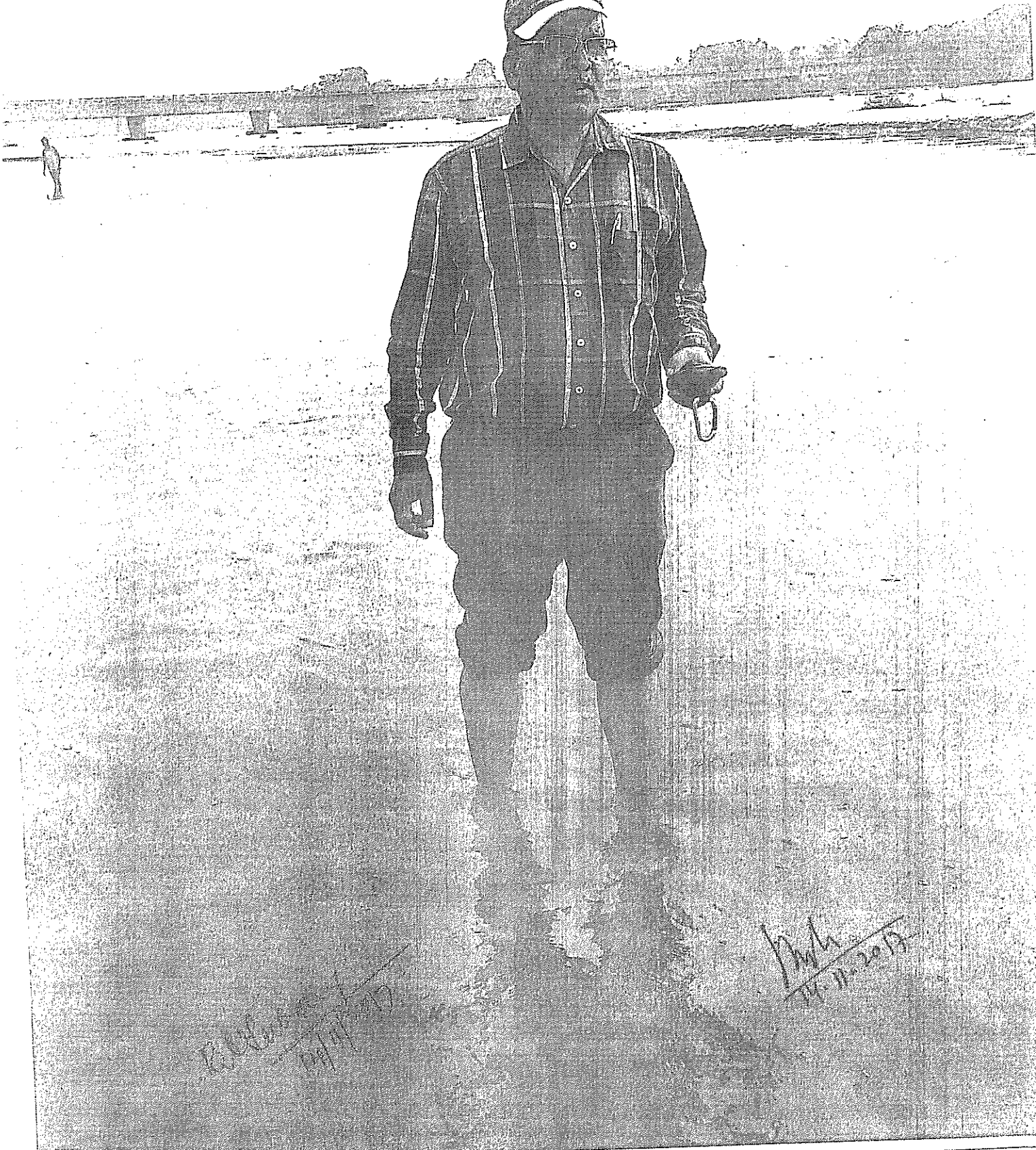
A single handwritten character or mark, possibly a dot or a small symbol, located in the center of the page.

A long line of handwritten text, possibly a footer or a concluding sentence, spanning across the lower middle section of the page. The text is extremely faint and illegible.



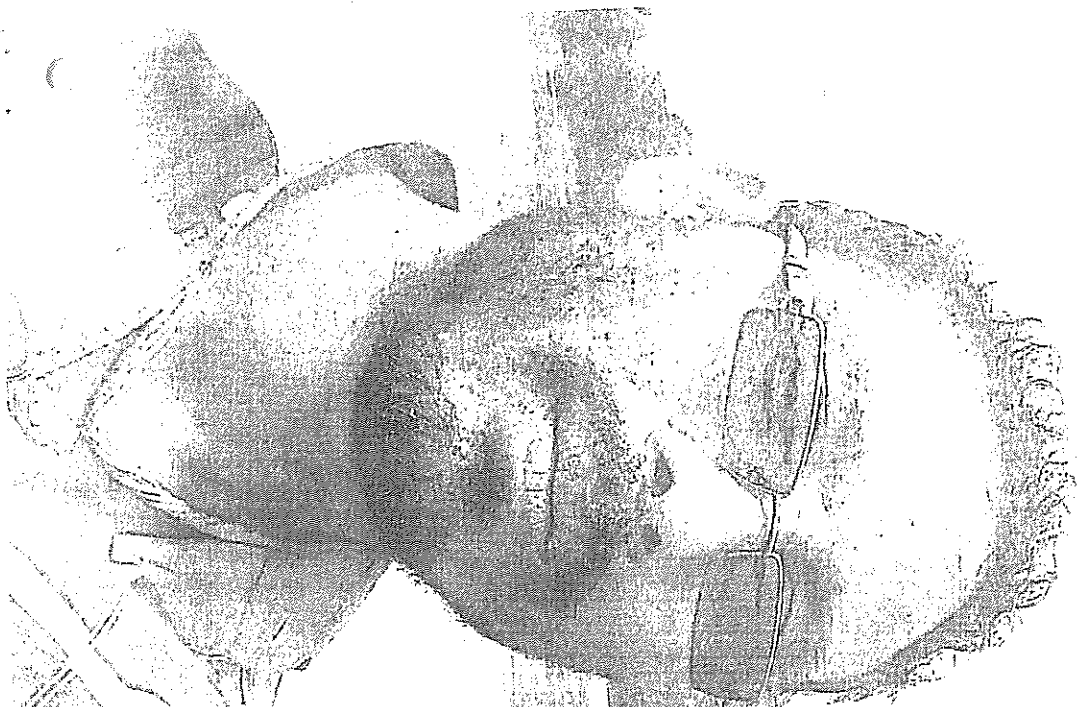
Bedway
14/11/2017

14/11/2017



[Handwritten signature]
11/11/13

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11/11/2013



B. Blawie
11/17/2017

11/17/2017

