



KAMALJEET SINGH AHLUWALIA

Mines Owner & Exporter

Office : P. B. No.: 3, In front of MMTC Weigh Bridge, At/Po : Barbil - 758035, Dist. : Keonjhar, Odisha, India

Telefax : 06767 - 270049, E-mail : kjsahluwalia@rediffmail.com

Date: 07.01.2019

To,
Additional Director, (Non-Coal Mining)
IA Division,
Ministry of Environment, Forests & Climate Change
Vayu-305, Indira Paryavaran Bhawan,
Jorbagh Road, Lodhi Road, New Delhi-110003

Sub: Nuagaon Iron Ore mining project of M/s Kamaljeet Singh Ahluwalia,
located at village(s) Nuagaon, Guali, Topadihi, Barapada and
Katasahi, Tehsil – Barbil, District- Keonjhar, Odisha (MLA: 767.284)
– Regarding Installation of conveyor belt.

Ref: File Nos. (i) J-11015/1156/2007-IA.II (M)
(ii) J-11015/317/2009-IA.II (M)

Dear Sir,

We would like to draw your kind attention to EAC recommendation for amending the EC conditions for Nuagaon Iron Ore mines and beneficiation plant of KJS Ahluwalia in Keonjhar district of Odisha.

As a brief background, the Nuagaon mines were awarded EC approval in 2010 with a condition that "Alternative transport systems such as dedicated railway siding for transportation of mineral from their mines shall be studied and put in place at the earliest but not later than five years. No mineral transportation by road shall be permitted beyond five years."

As mandated in the EC approval, we took up the study of alternative railway transportation system. We appointed reputed consulting companies accredited with Indian Railways and CRRI to conduct transport study and feasibility of railway transportation. CRRI report was vetted by NHAI and Govt. of Odisha.

Therefore, as mandated by the EC condition, we duly completed the study for alternative transportation system i.e. laying the mine specific railway siding & installation conveyor belt from mine head to nearby public railway siding and found that it is not feasible to transport mineral by above mode from the Nuagaon mines.



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South Eastern Railway (SER) expressing their inability to provide any new sidings taking off from Jaroli or between Barbil and Bolani khadan. They have also conveyed that stacking / storing of mineral (may brought by conveyor) in the Jaroli railway sidings is not allowed.

Under such circumstances, and finding no way to transport mineral using either site specific railway siding or by conveyor belt from mine head to nearby public railway siding, we applied for amendment of the EC condition to allow transportation by road. Kindly note that road infrastructure in Odisha has significantly strengthened since 2010 when the EC was granted and therefore ground conditions have changed since the EC was granted in 2010.

Considering the results of the study, railway's inability, and change in circumstances on ground, the EAC has recommended amendment in condition to allow transportation by road.

In the meantime, NEERI conducted a "Carrying Capacity Study for Environmentally Sustainable Iron and Manganese Ore Mining Activity in Keonjhar, Sundargarh and Mayurbhanj districts of Odisha State" and based on its recommendations the State Government has taken a commendable steps **towards implementation in regard to Suggested Ore Transport Mode (SOTM)** which is detailed in the brief note enclosed herewith.

Keeping in view of the left out lease period for the project i.e. 31st March 2020, the facts mentioned above and looking in to the implementation process of State Govt. on SOTM as recommended by NEERI as above, we request you to kindly consider the case holistically and approve the amendment in EC condition so that the livelihood of hundreds of families dependent on this mine can continue.

We appreciate Government's emphasis on growth as well as the need to generate employment for millions of people joining the employment stream every year. This mine is but a small contribution towards sustaining people's livelihoods while balancing the needs of environment protection.

We request that in the spirit of ease of doing business, and in view of all possible steps taken by us for fulfilling the EC conditions, the modification may kindly be granted at the earliest and allow us to transport mineral from the mines through existing road network/public railway siding.
Regards,

For K.J.S. Ahluwalia

A.K. Bhuyan
(V.P. Mines)

Encl: The brief note of the project including detail correspondence is attached as Enclosure-1



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Enclosure - 1

The Nuagaon Iron Mine of M/s KJS Ahluwalia (767.284 Ha) is located in village(s) Nuagaon, Guali, Topadihi, Barpada and Katasahi, tehsil Barbil, Keonjhar District, Odisha. The mine is being worked for a rated capacity of 5.62 Million Tonnes Per annum (MTPA) and beneficiation plant is working with a rated capacity of 2 MTPA.

Environment clearance for 5.62 MTPA iron ore production was issued by MOEF vide letter no. J-11015/1156/2007-IA.II (M) dated 2.2.2010. The Environmental clearance stipulates a specific condition (item V) **"Alternative transport system such as dedicated Railway siding for transportation of mineral from their mine shall be studied and put in place at the earliest but not later than five years. No mineral transportation by road shall be permitted beyond 5 years"** and Environmental clearance for 2 MTPA beneficiation plant was issued vide no. J-11015/317/2009-IA.II (M) dated 16.02.2012 with specific condition (no. VIII) **"Mineral transportation after the 5th year shall be carried out only by rail"**. **Annexure-1**

Further, In between 2011 to 2013 there is a lot of development on infrastructure i.e. road & railway sidings and also traffic volume has decreased drastically. At the same time NH-215 which is passing through the Nuagaon iron ore Mine **connecting Panikoli to Rajamunda via Keonjhar converting to 4 lane road.**

Based on the above development Lessee was done detail traffic study through his consultants in the year 2013 and applied for the amendment of **the above EC conditions for Mining & Beneficiation plant vide letter no. NIOM-KJS/MoEF/2013/ on dated 8th September 2013. Annexure-2**

In the month of December -2013, we had presented our proposal in the EAC meeting at MoEF, after considering our submissions, EAC sought additional documents to look forward.

Accordingly, in 20th April 2015 Lessee submitted the desired documents like **CRRi authenticated traffic study report, authenticated Axykno report on alternate mode of transport i.e. laying the mine specific railway siding &**



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installation conveyor belt from mine head to nearby public railway siding, letter from NHAI expressing their views on CRRI report, letter from South Eastern Railway regarding new siding & stacking of mineral in public railway siding premises & validity of mining lease letter from State Govt. Odisha. Annexure-3

On the basis of our submission, presentation held on 27th to 29th May 2015 at EAC & the committee has **recommended** for the amendment of the said condition for mining project. Again on 30th July 2015 presentation held for Beneficiation plant project & the committee **recommended** for the amendment of the said condition for beneficiation project. **Annexure-4**

While recommended the project by the EAC, it was mentioned following information/documents as given below furnished by the lessee on which the proposal was weighted;

- i. *Extract of the CRRI report & Letter from CRRI which is self-explanatory. This report is prepared by CRRI in consultation with state Govt., Odisha & NHAI.*
- ii. *Letter from NHAI expressing their views on Nuagaon traffic study report conducted by CRRI vide letter No. NHAI/11012/7/RO (CRRI/2012/TIU/KJR/7092 dated 13.3.2015.*
- iii. *Authenticated report by a'XYKno Infrastructure Pvt. Ltd along with accreditation letter by the South East Central Railway vide letter No. Engg/G 2/Apvd.Cons/AXYKNO/04 dated 13.08.2013 and West Central Railway vide its letter no. W-HQ/WG/Apvd List/Consultant/a'XYKno infrastructure dated 25.09.2013.*
- iv. *Letter from South Eastern Railway (SER) expressing their inability to provide any new sidings taking off from Jaroli or between Barbil and Bolani khadan vide ltr no AS/60/34Pt-XI dtd 25.02.2014. They have also conveyed that stacking / storing of mineral in the jaroli railway sidings is not allowed vide their letter dated 2nd April 2014.*



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- v. *The validity of the mining lease of Nuagaon Iron Ore Mines of M/s KJS Ahluwalia has been extended up to 31.03.2020 vide letter No. 3245/S&M, Bhubaneswar dated 18th April 2015 received from Department of Steel and Mines, Govt. of Odisha. The letter quotes that "The Government have been pleased to decide to extend the validity period of mining lease u/s 8A (6) of the M&M (D&R) Act, 1957, as amended by the MMDR Amendment Act, 2015 from 04.03.1999 to 31.03.2020".*

However, MoEF & CC, Govt. of India vide letter No. J-11015/1156/2007-IA.II (M) dated 31.03.2017 amended the EC condition by stating **"grant of temporary permission of two years for completing the installation of conveyor belts in the Nuagaon Iron ore mining project from the issue of this letter"** without considering the above facts & documents furnished and discussed in Expert Appraisal Committee (EAC) while recommend the proposal and left out with validity of lease period up to 31st march 2020 only. **Annexure-5**

Further, after the grant of above temporary permission **again we approach to MoEF&CC vide our letter dated 27.05.2017 (Annexure-6) to grant the amendment of EC condition as recommended by the Expert Appraisal Committee in its meeting dated 27th to 29th May 2015 & 30th July 2015. Further, with reference to the letter dated 16th October 2017 from MoEF&CC, we have submitted our reply.**

Further, in recent past Recommendation of CSIR-NEERI Report on "Carrying Capacity Study for Environmentally Sustainable Iron and Manganese Ore Mining Activity in Keonjhar, Sundargarh and Mayurbhanj districts of Odisha State" came in to action towards implementation. Where in point no. 7 it has mentioned regarding **Suggested Ore Transport Mode (SOTM) i.e. (Annexure-7)**

"In view of present ore transport practices and practical limitations, all the existing mines should ensure adoption of SOTM within next 5 years. New mines or mines seeking expansion should incorporate provision of SOTM in the beginning itself, and should have system in place within next 5 years.



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Table: EC Capacity based Suggested Ore Transport Mode (SOTM)

Code	EC	Suggested Ore Transport Mode
SOTM 1	≥ 5 MTPA	100% by private railway siding or conveyor belt up to public railway siding or pipeline for captive mines and 70% for non-captive mines
SOTM 2	Between 3 and <5 MTPA	Minimum 70% by public railway siding, through conveyor belt and maximum 30% by road - direct to destination or other public railway siding or above option
SOTM 3	Between 1 and <3 MTPA	Minimum 70% by public railway siding and maximum 30% by road - direct to destination or by other public railway siding or above options
SOTM 4	<1 MTPA	100 % by 10/17 Ton Trucks or above options

It is mentioned by State Govt. of Odisha that currently about 45% of the iron ore is despatched using rail network and progressively it will be increased to about 60% by rail/slurry over a period of 5 years, taking into account time required to set up more railway sidings.

In view of present ore transport practices and practical limitations, all the existing mines should ensure adoption of SOTM within next 5 years. New mines or mines seeking expansion should incorporate provision of SOTM in the beginning itself, and should have system in place within next 5 years.

Progress on development of dust free roads, implementation of SOTM, increased use of existing rail network, development of additional railway network/conveyor belt/ pipelines etc. shall be submitted periodically to MoEF&CC.



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***Responsibility: Department of Steel & Mines, Govt. of Odisha;
Time Period: 5 Years for developing railway/ conveyor belt facilities".***

Further, On the basis of above NEERI recommendation, State Govt. conducted meeting on 21.06.2018 with all department official, respective district collectors towards its implementation. **Recommendation with regard to new railway lines has been forwarded to the Ministry of Railway/Rail Board through Commerce & Transport Department for appropriate action. (Annexure-8)**

Further, one step ahead State Govt. of Odisha formulated **Odisha Rail Infrastructure Development Ltd. (A JV of Govt. of Odisha & Ministry of Railways)** for development of new railway lines with sidings in Joda-Barbil-Koira area, which will give benefit to all Lessees in different cluster. **(Annexure-9)**

With the above facts & recommendation by EAC on furnished documents, it is a clear finding that installation of new railway siding and Conveyor belt from mine lease to nearby existing public railway siding is quite difficult & impossible being a single entity. **We will abide by the guidelines formed, as state Govt. is vigorously working towards laying new railway lines & sidings/ Conveyor belt facilities in a cluster approach.**

Keeping in view of the left out lease period for the project i.e. 31st March 2020, the facts stated and submitted above and looking in to the implementation process of State Govt. on SOTM as recommended by NEERI as above, it is request to your good self relook the matter and grant us the amendment of EC condition in respect of our above mentioned projects and allow us to transport mineral from the mines through existing road network/public railway siding.

No. J-11015/1156/2007-IA.II(M)

**Government of India
Ministry of Environment & Forests**

**Paryavaran Bhavan,
C.G.O. Complex, Lodi Road,
New Delhi-110 003.**

Dated the 2nd February, 2010

To

**M/s Kamaljeet Singh Ahluwalia
At/Po-Barbil-758 035,
District Keonjhar,
Orissa**

**Subject: Expansion of Nuagaon Iron Ore Mining Project of
M/s Kamaljeet Singh Ahluwalia located in Village(s)
Nuagaon, Guali, Topadihi, Barapada and Katasahi, Tehsil
Barbil, District Keonjhar, Orissa - environmental clearance
regarding.**

Sir,

This has reference to your letter No. NIM/MoEF/EG/01 dated 12.11.2008 and subsequent letters dated 28.11.2008, 02.02.2009, 23.06.2009, 27.06.2009 and 10.07.2009 on the subject mentioned above. The Ministry of Environment and Forests had earlier prescribed Terms of Reference (TORs) to the project on 08.05.2008 for undertaking detailed EIA study for the purpose of obtaining environmental clearance. The proposal is for enhancement of production of iron ore from one million tonnes per annum (million TPA) to 5.62million TPA. The project was earlier accorded environmental clearance by the Ministry for one million TPA production of iron ore on 29.11.2007. The total mine lease area of the project is 767.284ha, out of which 124.584ha is an agricultural land, 525.762ha is forestland, 85.98ha is grazing land, 9.692ha is surface water bodies/roads and 21.266ha is others. Area proposed for mining is 375.114ha, an area of 29.53ha is kept for dump yard, 0.5ha for mineral storage, 11.5ha for roads, 5.95ha for site services, 58.1ha for greenbelt and safety zone plantation, 9ha for sub-grade stacking and 277.59ha is others (undisturbed land). It has been reported that there are six number of primary drainage channels (first order streams) and one secondary drainage channel (second order stream) exists in the mine lease area to carry out the surface run off. These channels have been neither disturbed nor diverted. The Karo River and the Suna Nadi are flowing in the buffer zone of the mine at a distance of 300m and 500m respectively from the mine lease boundary. The Tapoadihi Nallah, the Kakarpani Nallah and the Kundra Nallah are also flowing in the buffer zone of the mine at a distance of 400m, 7kms and 7.5kms respectively from the mine lease boundary. Modification/diversion in the existing natural drainage pattern at any stage has not been envisaged. No national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. are reported to be located in the core and buffer zone of the mine.

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and that the area does not report to form corridor for Schedule-I fauna. The Karo Karampada Elephant Corridor is reported to be located at a distance of about 12.5 km from the mine lease boundary. In support of this, the project proponent has provided a letter Memo No. 549/1WL-C-FC-386/08 dated 28.01.2009 from the Conservator of Forests (Wildlife), Government of Orissa along with an authenticated map from the DFO cum Wildlife Warden, Keonjhar Division and an approved site specific conservation plan. Eight Reserve Forests namely the Lakraghat RF(1km N), the Uliburu RF(2km NW), the Sidhamath RF(2.5km NE), the Mendhamaruni RF(4km S), the Karo RF(5km N), the Baitani RF(6km E), the Kamardha RF(7.5km NW) and the Toda RF(8.5km W) are located in the buffer zone of the mine. The mine working will be opencast by mechanized method involving drilling and blasting. The targetted production capacity of the mine is 56,20,000TPA(5.62million TPA) of iron ore and the life of mine is 20years. Approximately 18,750TPD of mineral will be transported through the road. The topography of the area is undulated and hilly at an elevation above mean sea level ranging from 520m-702m. The present working depth of mine is 560m AMSL and the ultimate working depth of mine will be 520m AMSL. The groundwater table is reported to be at 480m AMSL. The mine working will not intersect the ground water table. The peak water requirement of the project is estimated as 95m³ per day, which will be obtained from the Karo River. It has been reported that there is no population in the core zone, therefore, displacement of population and R&R has not been envisaged. It has been estimated that 15.913million m³ of waste will be generated during the life of the mine, out of which 1,591,389m³ will be used for road maintenance, 9,548,334m³ for reclamation of the worked out pits and the balance quantity of 4,774,167m³ will be dumped in the earmarked areas. Backfilling will start from the 6th year onwards. All the existing three dumps will remain at the end of the mine life and will be utilized for dumping the waste during the current scheme of mining. There will be three external dumps in an area of 29.53ha. The maximum height of the dumps will be 30m having 3terraces of 10m each. Plantation will be raised in an area of 539.02ha at the end of the mine life and there will be no water body left during the post mining stage. The Consent to Establish from the State Pollution Control Board, Orissa was obtained on 28.05.2009 for enhancement of production of iron ore from one million TPA to 5.62million TPA over mine lease hold area of 767.284ha. The public hearing of the project was held on 03.10.2008 for expansion of production upto 5.62million TPA of iron ore over an area of 767.284ha. The Indian Bureau of Mines had approved the scheme of mining including progressive mine closure plan of the project on 23.06.2009 over an area of 767.284ha. The Ministry of Environment and Forests conveyed its approval under Section-2 of the Forest (Conservation) Act, 1980 for diversion of 476.205ha (371.192ha approved) of forestland for mining of iron ore within the mining lease of 767.284ha on 22.04.2004. The capital cost of the project is Rs.145Crores and the capital cost for the environmental protection measures is proposed as Rs.46Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs.17Lakhs.

2. The Ministry of Environment and Forests has examined the application in accordance with the EIA Notification, 2006 and hereby accords environmental clearance under the provisions thereof to the above mentioned Nuagaon Iron Ore Mining Project of M/s Kamaljeet Singh Ahluwalia for an annual production capacity of 56,20,000 tonnes (5.62 million tonnes) of iron ore by opencast mechanized method involving total mine lease area of 767.284ha, subject to implementation of the following conditions and environmental safeguards.

A. Specific Conditions

- (i) All the conditions stipulated by the State Pollution Control Board, Orissa in their Consent to Establish shall be effectively implemented.
- (ii) Necessary forestry clearance under the Forest (Conservation) Act, 1980 for an area of 525.762ha forestland involved in the project shall be obtained before starting mining operation in that area. Till such time mining activities shall be restricted to an area of 476.205ha (371.192ha approved) of forestland for which approval under Section-2 of the Forest (Conservation) Act, 1980 was granted by the Ministry of Environment and Forests on 22.04.2004. Environmental clearance is subject to grant of forestry clearance. No mining shall be undertaken in the forest area without obtaining requisite prior forestry clearance.
- (iii) The environmental clearance is subject to approval of the State Land Use Department, Government of Orissa for diversion of agricultural land for non-agricultural use.
- (iv) The grazing lands involved in the project shall remain undisturbed and shall continue to be used for grazing. Necessary arrangement in this regard shall be made.
- (v) Alternate transport system such as dedicated railway siding for transportation of mineral from this mine shall be studied and put in place at the earliest but not later than 5 years. No mineral transportation by road shall be permitted beyond 5 years.
- (vi) The mining operations shall be restricted to above ground water table and it should not intersect the groundwater table. In case of working below the ground water table, prior approval of the Ministry of Environment and Forests and the Central Ground Water Authority shall be obtained, for which a detailed hydro-geological study shall be carried out.
- (vii) The project proponent shall ensure that no natural watercourse and/or water resources shall be obstructed due to any mining operations. Adequate measures shall be taken for conservation and protection of the first order and the second order streams emanating/passing through the mine lease area during the course of mining operation.

(viii) The top soil shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long. The topsoil shall be used for land reclamation and plantation.

(ix) The over burden (OB) generated during the mining operations shall be stacked at earmarked dump sites only and it should not be kept active for a long period of time and their phase-wise stabilization shall be carried out. Backfilling shall commence from the 6th year onwards. There shall be three external dumps in an area of 29.53ha. The maximum height of the dumps shall not exceed 30m having 3 terraces of 10m each and the overall slope of the dump shall be maintained to 28°. The OB dumps shall be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles shall be undertaken for stabilization of the dumps. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment & Forests and its Regional Office located at Bhubaneswar on six monthly basis.

(x) Catch drains and siltation ponds of appropriate size shall be constructed around the mine working, soil, mineral and OB dump(s) to prevent run off of water and flow of sediments directly into the first order and the second order streams, the Karo River, the Suna Nadi, the Tapoadihi Nallah, the Kakarpani Nallah, the Kundra Nallah and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after the monsoon and maintained properly.

Garland drains, settling tanks and check dams of appropriate size, gradient and length shall be constructed both around the mine pit and over burden dump to prevent run off of water and flow of sediments directly into the first order and the second order streams, the Karo River, the Suna Nadi, the Tapoadihi Nallah, the Kakarpani Nallah, the Kundra Nallah and other water bodies and sump capacity should be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sedimentation pits shall be constructed at the corners of the garland drains and desilted at regular intervals.

(xi) Dimension of the retaining wall at the toe of the over burden dumps and the OB benches within the mine to check run-off and siltation shall be based on the rain fall data.

(xii) Plantation shall be raised in an area of 539.02ha including a 7.5m wide green belt in the safety zone around the mining lease, backfilled and reclaimed area, OB dumps, mine benches, along the roads etc. by

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planting the native species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2500 plants per hectare.

- (xiii) Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulate matter such as haul road, loading and unloading point and all transfer points. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.
- (xiv) Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintained.
- (xv) Regular monitoring of water quality upstream and downstream of the Tapbadhi Nallah shall be carried out and record of monitored data should be maintained and submitted to the Ministry of Environment and Forests, its Regional Office, Bhubneswar, the Central Groundwater Authority, Regional Director, the Central Ground Water Board, the State Pollution Control Board and the Central Pollution Control Board.
- (xvi) The project authority should implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board.
- (xvii) Regular monitoring of ground water level and quality shall be carried out in and around the mine lease by establishing a network of existing wells and installing new piezometers during the mining operation. The periodic monitoring [(at least four times in a year- pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January); once in each season)] shall be carried out in consultation with the State Ground Water Board/Central Ground Water Authority and the data thus collected may be sent regularly to the Ministry of Environment and Forests and its Regional Office Bhubneswar, the Central Ground Water Authority and the Regional Director, Central Ground Water Board. If at any stage, it is observed that the groundwater table is getting depleted due to the mining activity, necessary corrective measures shall be carried out.
- (xviii) Appropriate mitigative measures should be taken to prevent pollution of the Karo River and the Suna-Nadi in consultation with the State Pollution Control Board.
- (xix) Provision shall be made for the housing of district labour within the project area. The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of water (surface water and ground water, if any) required for the project.

- (xx) Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with the Regional Director, Central Ground Water Board.
- (xxi) Vehicular emissions shall be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operations and in transportation of mineral. The mineral transportation shall be carried out through the covered trucks only and the vehicles carrying the mineral shall not be overloaded. No transportation of ore outside the mine lease area shall be carried out after the sunset.
- (xxii) No blasting shall be carried out after the sunset. Blasting operation shall be carried out only during the daytime. Controlled blasting shall be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented.
- (xxiii) Drills shall either be operated with the dust extractors or equipped with water injection system.
- (xxiv) Mineral handling area shall be provided with adequate number of high efficiency dust extraction system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.
- (xxv) Sewage treatment plant shall be installed for the colony. ETP shall also be provided for the workshop and wastewater generated during the mining operation.
- (xxvi) Pre-placement medical examination and periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly.
- (xxvii) The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna namely elephant, sloth bear etc. spotted in the study area. Action plan for conservation of flora and fauna prepared shall be implemented in consultation with the State Forest and Wildlife Department. All the safeguard measures brought out in the Wildlife Conservation Plan prepared specific to this project site shall be effectively implemented. Necessary allocation of funds for implementation of the conservation plan shall be made and the funds so allocated shall be included in the project cost. A copy of action plan shall be submitted to the Regional Office of the Ministry of Environment and Forests, Bhubaneswar.
- (xxviii) Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

(xxix) The critical parameters such as RSPM (Particulate matter with size less than 10micron i.e., PM_{10}) and NO_x in the ambient air within the Impact zone, peak particle velocity at 300m distance or within the nearest habitation, whichever is closer shall be monitored periodically. Further, quality of discharged water shall also be monitored [(TDS, DO, PH and Total Suspended Solids (TSS))]. The monitored data shall be uploaded on the website of the company as well as displayed on a display board at the project site at a suitable location near the main gate of the Company in public domain. The Circular No. J-20012/1/2006-IA-II(M) dated 27.05.2009 issued by Ministry of Environment and Forests, which is available on the website of the Ministry www.envfor.nic.in shall also be referred in this regard for its compliance.

(xxx) Digital processing of the entire lease area using remote sensing technique should be done regularly once in three years for monitoring land use pattern and report submitted to the Ministry of Environment and Forests and its Regional Office, Bhubaneswar.

(xxxi) The project proponent shall obtain consent to operate from the State Pollution Control Board, Orissa prior to start of enhanced production from the mine.

(xxxii) A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval.

B. General conditions

(i) No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment & Forests.

(ii) No change in the calendar plan including excavation, quantum of mineral iron ore and waste should be made.

(iii) At least four ambient air quality monitoring stations should be established in the core zone as well as in the buffer zone for RSPM (Particulate matter with size less than 10micron i.e., PM_{10}), SO_2 and NO_x monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board.

(iv) Data on ambient air quality [(RSPM (Particulate matter with size less than 10micron i.e., PM_{10}), SO_2 and NO_x)] should be regularly submitted to the Ministry including its Regional office located at Bhubaneswar and the State Pollution Control Board/ Central Pollution Control Board once in six months.

9/8/-

- (v) Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points should be provided and properly maintained.
- (vi) Measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs / muffs.
- (vii) Industrial waste water (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents.
- (viii) Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.
Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.
- (ix) A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.
- (x) The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry and its Regional Office located at Bhubaneswar.
- (xi) The project authorities should inform to the Regional Office located at Bhubaneswar regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
- (xii) The Regional Office of this Ministry located at Bhubaneswar shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.
- (xiii) The project proponent shall submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the Ministry of Environment and Forests, its Regional Office Bhubaneswar, the respective Zonal Office of Central Pollution Control Board and the State Pollution Control Board. The proponent shall upload the status of compliance of

the EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the Ministry of Environment and Forests, Bhubaneswar, the respective Zonal Officer of Central Pollution Control Board and the State Pollution Control Board.

- (xiv) A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad/ Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.
 - (xv) The State Pollution Control Board should display a copy of the clearance letter at the Regional office, District Industry Centre and the Collector's office/ Tehsildar's Office for 30 days.
 - (xvi) The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Office of the Ministry of Environment and Forests, Bhubaneswar by e-mail.
 - (xvii) The project authorities should advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at web site of the Ministry of Environment and Forests at <http://envfor.nic.in> and a copy of the same should be forwarded to the Regional Office of this Ministry located at Bhubaneswar.
3. The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.
 4. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.
 5. The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules made thereunder and also any other orders passed by the Hon'ble Supreme Court of India/ High Court of Orissa and any other Court of Law relating to the subject matter.

6. Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Authority Act, 1997.

(SATISH C. GARKOTI)
Additional Director (S)

Copy to:

- (i) The Secretary, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi.
- (ii) The Secretary, Department of Environment, Government of Orissa, Secretariat, Bhubaneswar.
- (iii) The Secretary, Department of Mines and Geology, Government of Orissa, Secretariat, Bhubaneswar.
- (iv) The Secretary, Department of Forests, Government of Orissa, Secretariat, Bhubaneswar.
- (v) The Chief Wildlife Warden, Government of Orissa, Bhubaneswar.
- (vi) The Chairman, Central Pollution Control Board, Parivesh Bhawan, GBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
- (vii) The Chief Conservator of Forests, Regional Officer (EZ), Ministry of Environment and Forests, A-3 Chandrasekharpur, Bhubaneswar-751023.
- (viii) The Chairman, Orissa State Pollution Control Board, Parivesh Bhawan, A-11/8 Allandina Nagar, Unit-VIII, Bhubaneswar-751012.
- (ix) The Member Secretary, Central Ground Water Authority, A2, W3 Curzon Road Barracks, K.G. Marg, New Delhi-110001.
- (x) The District Collector, Keonjhar District, Government of Orissa.
- (xi) E.O. Division, Ministry of Environment & Forests, E.O. Division, New Delhi.
- (xii) Monitoring File.
- (xiii) Guard File.
- (xiv) Record File.

By Speed Post**No. J-11015/317/2009-IA.II(M)**Government of India
Ministry of Environment & ForestsParyavaran Bhawan,
C.G.O. Complex, Lodi Road,
New Delhi – 110 003Dated the 16th February, 2012

To

M/s Kamaljeet Singh Ahluwalia
Post Box No. 03,
At/P.O. Barbil-758 035
District Keonjhar, Odisha**Sub: Nuagaon Iron Ore Beneficiation Plant of M/s Kamaljeet Singh Ahluwalia, located in Village(s) Guali and Barpada, Tehsil Barbil, District Keonjhar, Odisha - environmental clearance regarding.**

Sir,

This has reference to your letter No. NIOM-KJS/MoEF/EC/2011/14 dated 28.01.2011 and subsequent letters dated 06.04.2011 and 22.04.2011 on the subject mentioned above. The project was earlier prescribed Terms of Reference (TORs) by the Ministry of Environment and Forests on 18.01.2010 for undertaking detailed EIA study for the purpose of obtaining environmental clearance. The proposal is for setting up of a iron ore beneficiation plant with a throughput capacity of 2.0million tonnes per annum (million TPA). The plant will be located within the existing mine lease. The Expansion of Nuagaon Iron Ore Mining Project of M/s Kamaljeet Singh Ahluwalia located in Village(s) Nuagaon, Guali, Topadihi, Barapada and Katasahi, Tehsil Barbil, District Keonjhar, Orissa was accorded environmental clearance by the Ministry vide letter No. J-11015/1156/2007-IA.II(M) dated 2nd February, 2010 for production capacity of 5.62 million TPA of iron ore involving mining lease area 767.284 ha.

2. The proposed plant will be located within the existing mine lease area of 767.284 ha, for which environment clearance has already been obtained for a rated capacity of 5.62 million TPA. Out of the total mine lease area of 767.284 ha (including 525.762 ha of forestland); the land requirement for the beneficiation plant will be 4ha. It was stated by the proponent that the beneficiation plant will be located in the exhausted quarry area for which diversion of forestland was obtained. Out of 4 ha land requirement for beneficiation plant, an area of 1.2 ha is kept for plant facilities, 1.4 ha for product and water storage, 1.2 ha for green belt and 0.2 ha is others (roads, railway siding, administrative building). The Karo Nadi and the

Suna Nadi are flowing in the buffer zone of the mine at a distance of 300 m (W) and 500 m (SE) respectively from the mine lease boundary.

3. No national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. are reported to be located in the core and buffer zone of the project. The Conservator of Forests (Wildlife) approved site specific wildlife conservation plan for the mine on 28.01.2009.

4. The raw material for the beneficiation plant will be the low grade ore from the mine as well as from re-handling of the old stacks of sub-grade ore. The beneficiation plant will adopt wet process with the latest State of Art Technology comprising of drum scrubbers, double deck wet screens, jigs, dewatering and rinsing screens, thickening cyclones, high frequency screens, filter press etc. The throughput capacity of the beneficiation plant will be two million TPA. The life of the beneficiation plant is reported to be 32 years. Selection of filter press eliminates the necessity of tailing pond and the final sludge comes in the form of cake. The project is based on zero discharge. The effluent generated will be recycled and reused and there will be no effluent discharge outside the plant area. There will be no tailing pond. It is estimated that 0.6 million TPA of rejects will be generated, which will be refilled in the mined out area. The peak water requirement of the project is estimated as 1025 m³ per day, which will be obtained from the groundwater. The area is reported to fall in safe category from groundwater point of view and necessary permission from CGWA has been obtained in this regard.

5. The public hearing of the project was held on 12.01.2011 for establishment of 2million TPA iron ore beneficiation plant within the mining lease area of Nuagaon Iron Ore Mine of M/s Kamaljeet Singh Ahluwalia at Guali and Barapada. The Ministry of Environment and Forests conveyed its approval under Section-2 of the Forest (Conservation) Act, 1980 for diversion of 476.205 ha (371.192 ha approved) of forestland for mining of iron ore within the mining lease of 767.284 ha on 22.04.2004. The capital cost of the project is Rs.30 crores and the capital cost for the environmental protection measures is proposed as Rs.324 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs.25 Lakhs. It has been stated that there is no court case pending against the project.

6. The Ministry of Environment and Forests has examined the application in accordance with the EIA Notification, 2006 and hereby accords environmental clearance under the provisions thereof to the above mentioned Nuagaon Iron Ore Beneficiation Plant of M/s Kamaljeet Singh Ahluwalia for an annual production capacity of Two(2) million tonnes throughput involving project area of 4 ha, within the existing mining lease area of 767.284 ha of the applicant, subject to implementation of the following conditions and environmental safeguards.

A. Specific Conditions:

- (i) No activity relating to the project shall be undertaken in the forestland for which forestry clearance under the Forest (Conservation) Act, 1980 has not been obtained. The environmental clearance is subject to grant of forestry

clearance.

- (ii) The project proponent shall obtain Consent to Establish and Consent to Operate from the State Pollution Control Board, Orissa and effectively implement all the conditions stipulated therein.
- (iii) The Company shall submit within 3 months their policy towards Corporate Environment Responsibility which should inter-alia provide for (i) Standard operating process / process to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions, (ii) Hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions and (iii) System of reporting of non compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders.
- (iv) The water recovery and spill way system shall be so designed that the natural water resources are not affected and that no spill water goes into the nearby rivers.
- (v) The project proponent shall carry out conditioning of the ore with water to mitigate fugitive dust emission.
- (vi) The rejects generated in the form of cake from the filter press shall be filled back into the mined out area. Compliance status shall be submitted to the Ministry of Environment & Forests and its Regional Office located at Bhubaneswar on six monthly basis.
- (vii) The project proponent shall take appropriate safeguard measures to ensure that the particulate levels remain within permissible limit.
- (viii) Mineral transportation after the 5th year shall be carried out only by rail.
- (ix) A green belt of adequate width shall be developed all around the plant by planting the native species in consultation with the local DFO/Agriculture Department within first five years.
- (x) Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulate matter such as around crushing and screening plant, loading and unloading point and transfer points. Extensive water sprinkling shall be carried out on haul roads. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.
- (xi) The project authority should implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board.

- (xii) Regular monitoring of ground water level and quality shall be carried out in and around the project area by establishing a network of existing wells and installing new piezometers during the operation. The periodic monitoring [(at least four times in a year- pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January); once in each season)] shall be carried out in consultation with the State Ground Water Board/Central Ground Water Authority and the data thus collected may be sent regularly to the Ministry of Environment and Forests and its Regional Office Bhubaneswar, the Central Ground Water Authority and the Regional Director, Central Ground Water Board. If at any stage, it is observed that the groundwater table is getting depleted due to the mining activity, necessary corrective measures shall be carried out.
- (xiii) The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of water(surface water and groundwater) required for the project.
- (xiv) Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with the Regional Director, Central Ground Water Board.
- (xv) Appropriate mitigative measures shall be taken to prevent pollution of the Karo Nadi and the Suna Nadi in consultation with the State Pollution Control Board.
- (xvi) Pre-placement medical examination and periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly.
- (xvii) Occupational health surveillance program of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed. Health records of the workers shall be maintained.
- (xviii) Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project. -
- (xix) The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna namely elephant, sloth bear etc. spotted in the study area. All the safeguard measures brought out in the approved site specific wildlife conservation plan shall be effectively implemented in consultation with the State Forest and Wildlife Department. Necessary allocation of funds for implementation of the conservation plan shall be made and the funds so allocated shall be included

in the project cost. A copy of approved conservation plan shall be submitted to the Ministry of Environment and Forests and its Regional Office, Bhubaneswar.

B. General conditions:

- (i) No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.
- (ii) Atleast four ambient air quality-monitoring stations should be established in the core zone as well as in the buffer zone for RSPM (Particulate matter with size less than 10micron i.e., PM₁₀) and NO_x monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board.
- (iii) Data on ambient air quality [(RSPM(Particulate matter with size less than 10 micron i.e., PM₁₀) and NO_x] should be regularly submitted to the Ministry including its Regional office located at Bhubaneswar and the State Pollution Control Board / Central Pollution Control Board once in six months.
- (iv) Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points should be provided and properly maintained.
- (v) Measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs / muffs.
- (vi) Industrial waste water (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents.
- (vii) Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.

Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.

- (viii) A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.

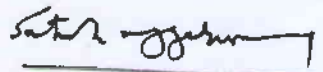
- (ix) The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry and its Regional Office located at Bhubaneswar.
- (x) The project authorities should inform to the Regional Office located at Bhubaneswar regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
- (xi) The Regional Office of this Ministry located at Bhubaneswar shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.
- (xii) The project proponent shall submit six monthly reports on the status of compliance of the stipulated environmental clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the Ministry of Environment and Forests, its Regional Office Bhubaneswar, the respective Zonal Office of Central Pollution Control Board and the State Pollution Control Board. The proponent shall upload the status of compliance of the environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the Ministry of Environment and Forests, Bhubaneswar, the respective Zonal Office of Central Pollution Control Board and the State Pollution Control Board.
- (xiii) A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parisad/ Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.
- (xiv) The State Pollution Control Board should display a copy of the clearance letter at the Regional office, District Industry Centre and the Collector's office/ Tehsildar's Office for 30 days.
- (xv) The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Office of the Ministry of Environment and Forests, Bhubaneswar by e-mail.
- (xvi) The project authorities should advertise at least in two local newspapers of the District or State in which the project is located and widely circulated, one

of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at web site of the Ministry of Environment and Forests at <http://envfor.nic.in> and a copy of the same should be forwarded to the Regional Office of this Ministry located at Bhubaneswar.

7. The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.

8. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.

9. The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules made thereunder and also any other orders passed by the Hon'ble Supreme Court of India/ High Court of Orissa and any other Court of Law relating to the subject matter.


(Dr. S.K. Aggarwal)
Director

Copy to:

- (i) The Secretary, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi.
- (ii) The Secretary, Department of Environment, Government of Orissa, Secretariat, Bhubaneswar.
- (iii) The Secretary, Department of Mines and Geology, Government of Orissa, Secretariat, Bhubaneswar.
- (iv) The Secretary, Department of Forests, Government of Orissa, Secretariat, Bhubaneswar.
- (v) The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
- (vi) The Chief Conservator of Forests, Regional Office (EZ), Ministry of Environment and Forests, A-3 Chandrashekharapur, Bhubaneswar-751023.

- (vii) The Chairman, Orissa State Pollution Control Board, Parivesh Bhawan, A/118 Nilakantha Nagar, Unit-VIII, Bhubaneshwar-751012.
- (viii) The Member Secretary, Central Ground Water Authority, A2, W3 Curzon Road Barracks, K.G. Marg, New Delhi-110001.
- (ix) The District Collector, District Keonjhar, Government of Orissa.
- (x) EI Division, Ministry of Environment & Forests, EI Division, New Delhi.
- (xi) Monitoring File.
- (xii) Guard File.
- (xiii) Record File.

(Dr. S.K. Aggarwal)
Director



KAMALJEET SINGH AHLUWALIA

Mines Owner & Exporter

Office : P.B. No. 3, In front of MMTC Weigh Bridge, At/Po : Barbil -758035, Dist. : Keonjhar, Orissa, India
Ph. : 06767-275348, 275659, Telefax : 06767-276392, E-mail : kjsahluwalia@rediffmail.com

Ref. No. NIOM-KJS/MoEF/2013/

Dated: 8th September 2013

The Director,
Ministry of Environment & Forest,
I.A. Division II (M),
Paryavaran Bhavan, CGO Complex,
Lodi Road, New Delhi- 110003

18/9/13

श्री. क. अ. अहलुवालिया द्वारा भेजा गया
Received By C.R. Section
प्रमाणित किया गया कि
Ministry of Environment & Forest
सूचना प्रणाली/Govt. of India
श्री. क. अ. अहलुवालिया, लोदी रोड
CGO Complex, Lodi Road
New Delhi - 110003

Sub: Expansion of Nuagaon Iron Ore Mining project and Iron Ore beneficiation plant of M/s Kamaljeet Singh Ahluwalia located in village(s) Nuagaon, Guali, Topadihi, Barapada and Katasahi, Tehsil Barbil, District keonjhar, Orissa – **Environment Clearance Amendment regarding**

Ref: 1. **Environmental Clearance letter no. J-11015/1156/2007-IA.II (M) dated 2nd February 2010.**
2. **Environmental Clearance letter no. J-11015/317/2009-IA.II (M) dated 16th February 2012.**

Madam,

With reference to the above subject, we would like to draw your kind attention towards the Environmental Clearance awarded to "Nuagaon Iron Ore Mining project and Iron ore Beneficiation Plant of M/s Kamaljeet Singh Ahluwalia located in village(s) Nuagaon, Guali, Topadihi, Barapada and Katasahi, Tehsil Barbil, District keonjhar, Orissa".

1. The project got environment clearance for expansion of 5.62 MTPA iron ore production vide letter no. **J-11015/1156/2007-IA.II (M) dated 2nd February 2010** with the specific condition no. V, says that **"Alternative transport system such as dedicated Railway siding for transportation of mineral from their mine shall be studied and put in place at the earliest but not later than five years. No mineral transportation by road shall be permitted beyond 5 years"**
2. The project got environment clearance for beneficiation plant (within the lease) vide letter no. **J-11015/317/2009-IA.II (M) dated 16th February 2012** with the specific condition no. viii, says that **"Mineral transportation after the 5th year shall be carried out only by rail"**.

With specific to the above, the lessee has conducted detailed study on **"alternative transportation system"** through aXYNO Infrastructure Pvt. Ltd, Nagpur and **"Existing transportation facility traffic study"** by Creative Engineering Consultant, Chennai.

From this it may be concluded that alternative transportation systems i.e. "establishment of own private railway siding within the lease" for mineral transportation is techno-economically not viable. In the mean time the existing public railway sidings connected through NH-215 is now upgraded to 4 lanes, is adequate enough to facilitate the transportation of mineral from the mines.

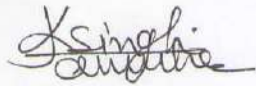
20/2

KAMALJEET SINGH AHLUWALIA
Continuation Sheet.....

Keeping in view of the above facts, you are kindly requested for necessary amendment of the said granted environmental clearance in favour of above Mining & Beneficiation project in respect to the specific condition no 'v' & 'viii' respectively, by allowing us to transport mineral from the mines through existing road network/public railway sidings.

Thanking you

Yours faithfully,
for Nuagaon Iron ore Mines, M/s Kamaljeet Singh Ahluwalia



Lessee

Encls: As above



KAMALJEET SINGH AHLUWALIA

Mines Owner & Exporter

Office : P.B. No. 3, In front of MMTC Weigh Bridge, At/Po : Barbil -758035, Dist. : Keonjhar, Orissa, India
Ph. : 06767-275348, 275659, Telefax : 06767-276392, E-mail : kjsahluwalia@rediffmail.com

20th April 2015

The Member Secretary (Non-Coal Mining),
IA Division,
Ministry of Environment, Forests and Climate Change,
New Delhi-110003

श्री. आर. अनुमान काय मान्य कि-द
Received by CR Section
पर्यावरण, वन, जलवायु, परिवहन विभाग
Ministry of Environment, Forests & Climate Change
एनएल नएल/एनएल/एनएल
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नएल नएल/एनएल/एनएल

Sub: Expansion of Nuagaon Iron Ore Mining project and Iron Ore beneficiation plant project of M/s Kamaljeet Singh Ahluwalia located in village(s) Nuagaon, Guali, Topadihi, Barapada and Katasahi, Tehsil Barbil, District keonjhar, Orissa (767.284 Ha)- Environment Clearance Amendment- reconsideration regarding.

Ref: As per the item no. 2.13 of summary record of 31st meeting of the re-constituted committee of the Expert Appraisal Committee (Non-Coal Mining) scheduled on 16th-18th March, 2015 published in the web site of the MoEFCC, Govt. of India.

Dear Sir,

With reference to the above subject & as per the item no. 2.13 of the agenda for the 31st meeting of the re-constituted committee of the Expert Appraisal Committee, we have submitted & presented;

- Extract of the report of **Traffic Study for Feasibility of Mineral Transportation in Joda-Barbil, Odisha carried out by Central Road Research Institute (CRRI), New Delhi 110025 during 2013-14.** The said study takes into account Nuagaon Iron Ore Mines of M/s KJS Ahluwalia also. The mineral raised from Nuagaon Iron Ore Mines is transported to Barbil, Banspani & Jaroli railway siding via KJSA, Rugudih and Bhadrasahi junctions.

While conducting the traffic study CRRI has collected data from NHAI (since NH-215 passes through the mine lease), consulted state govt. and used the Real time traffic data from I3MS, department of Steel & Mines, Govt. of Odisha.

- National Highways Authority of India reviewed the CRRI report and concluded that "the concerned stretch of NH-215 after expansion to 4 lanes will be adequate enough to facilitate transportation of revised increased output of mines to the existing public railway sidings" vide Letter no NHAI/11012/7/RO (CRRI/2012/TIU/KJR/7092 dated 13.3.2015.
- The Pre-feasibility survey report of "Alternative transport system for transportation of mineral from Nuagaon Iron Ore Mine to nearby existing railway siding" was also carried out by "M/s a'XYKno Infrastructure Pvt. Ltd" during the year 2014.

OFFICE COPY

M/s aXYKno Infrastructure Pvt. Ltd is accredited by the South East Central Railway vide letter No. **Engg/G-2/Apvd.Cons/AXYKNO/04** dated 13.08.2013 and West Central Railway vide its letter no. **W-HQ/WG/Apvd-List/Consultant/a'XYKno infrastructure** dated 25.09.2013.

- Letter from South Eastern Railway (SER) expressing their inability to provide any new sidings taking off from Jaroli or between Barbil and Bolanikhadan vide ltr no **AS/60/34Pt-XI** dtd 25.02.2014. They have also conveyed that stacking / storing of mineral in the jaroli railway sidings is not allowed vide their letter dated 2nd April 2014.

All the above detail were presented & deliberated in the EAC meeting held on 16th March 2015 by the project proponent with Dr. Ravi Sekhar, Senior Scientist from Central Road Research Institute (CRRI), New Delhi, Dr. Ketan Gokhale, Ex- Managing Director, Konkan Railway Corporation Limited & Mr. Jayant Ukey, representative of aXYKno Infrastructure Pvt. Ltd, Nagpur and NABET accredited EIA consultant.

However, as per the requirement of EAC after deliberations, additional informations were submitted as given below:

- The status of the Mining Lease,
- Summary of the project in respect to the agenda item, and
- Data on different mining leases of Joda Circle in respect to EC capacity and production achieved

With reference to the summary record of 31st meeting held in 16th-18th March, 2015 given in the website of MoEFCC, Govt. of India, we are herewith submitting the following documents for your kind perusal & consideration.

1. Extract of the CRRI report & Letter from CRRI which is self explanatory. This report is prepared by CRRI in consultation with state Govt., Odisha & NHAI. (**Annexure-1**)
2. Letter from NHAI expressing their views on Nuagaon traffic study report conducted by CRRI vide letter No. NHAI/11012/7/RO (CRRI/2012/TIU/KJR/7092 dated 13.3.2015). (**Annexure-2**)
3. Authenticated report by a'XYKno Infrastructure Pvt. Ltd along with accreditation letter by the South East Central Railway vide letter No. **Engg/G-2/Apvd.Cons/AXYKNO/04** dated 13.08.2013 and West Central Railway vide its letter no. **W-HQ/WG/Apvd-List/Consultant/a'XYKno infrastructure** dated 25.09.2013. (**Annexure-3A & 3B**)

4. Letter from South Eastern Railway (SER) expressing their inability to provide any new sidings taking off from Jaroli or between Barbil and Bolanikhadan vide ltr no AS/60/34Pt-XI dtd 25.02.2014. They have also conveyed that stacking / storing of mineral in the jaroli railway sidings is not allowed vide their letter dated 2nd April 2014. (Annexure-4)
5. The validity of the mining lease of Nuagaon Iron Ore Mines of M/s KJS Ahluwalia has been extended up to 31.03.2020 vide letter No. 3245/S&M, Bhubaneswar dated 18th April 2015 received from Department of Steel and Mines, Govt. of Odisha. The letter quotes that "*The Government have been pleased to decide to extend the validity period of mining lease u/s 8A (6) of the M&M (D&R) Act, 1957, as amended by the MMDR Amendment Act, 2015 from 04.03.1999 to 31.03.2020*". (Annexure-5)

Thanking You

Yours faithfully
for M/s KJS Ahluwalia



Encl: As above

Annexure-1



सीएसआईआर—केन्द्रीय सड़क अनुसंधान संस्थान
(वैज्ञानिक एवं औद्योगिक अनुसंधान परिषद)
पी.ओ. सीआरआरआई, मथुरा रोड, नई दिल्ली 110025

CSIR-Central Road Research Institute

(Council of Scientific & Industrial Research)

PO CRRI, Delhi-Mathura Road, New Delhi 110 025 (India)

Website : www.crridom.gov.in

डा. पूर्णिमा परिदा
प्रमुख, परिवहन योजना

Dr. Purnima Parida,
Head, Transportation Planning

No. p61/TP/15
Dated: 16/04/2015

The General Manager
Nuagaon Iron Ore Mines
M/s KJS Ahluwalia
At/Po.Barbil, Dist:Keonjhar
Odisha-758035

Sub: Authentication of "Traffic study report for Nuagaon Iron Ore Mines of M/s KJS Ahluwalia, district Keonjhar, Odisha.

Ref: 1. Your letter dated 10th April 2015.
2. Final report on "Study for feasibility of mineral transportation in Joda, Barbil, Odisha" submitted vide No. p61/TP/14 dated 14.08.2014

Sir,

With reference to the above cited subject and your request vide letter dated 10th April 2015 we herewith authenticate that the traffic study report specific to Nuagaon Iron ore Mines, M/s KJS Ahluwalia, in the district Keonjhar of Odisha, is the extract of report on "Study for feasibility of mineral transportation in Joda, Barbil, Odisha" conducted by CSIR-Central Road Research Institute (CRRI), New Delhi submitted vide letter No. p61/TP/14 dated 14.08.2014. While preparing the report authentic information/data from various govt. authorities like NHAI, real time traffic data from Integrated Mines and Minerals Management System (I3MS), Department of Steel & Mines, Govt. of Odisha, Regional Transport Officer, Public Works Department of the Govt. of Odisha was taken in to consideration.

Thanking You,

Yours Sincerely

Purnima
(Dr. Purnima Parida)

Encl: As Above



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☎ 91-11-26845943, 26830480

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TRAFFIC STUDY

NUAGAON IRON ORE MINE

M/S KJS AHULUWALIA

**Keonjhar District
Odisha**

1.1 GENERAL

Nuagaon iron ore mining lease of 767.284 hectares of Sri. K.J.S. Ahluwalia is being worked for a rated capacity of 5.62 Million Tonnes Per annum (MTPA) and beneficiation plant capacity 2 MTPA after obtaining necessary clearance from IBM, Environmental clearance from MOEF and other statutory clearances.

Nuagaon mining lease is located in villages Nuagaon, Guali, Topadihi, Barpada and Katasahi in Keonjhar district of Orissa State NH-215 passes through the lease area.

MoEF while giving environmental clearance to the proposal had laid certain specific conditions. For 5.62 MTPA iron ore production, the Ministry vide **specific condition no. V of the** laid down that **“Alternative transport system such as dedicated Railway siding for transportation of mineral from their mine shall be studied and put in place at the earliest but not later than five years. No mineral transportation by road shall be permitted beyond 5 years.”** For 2 MTPA beneficiation plant, the Ministry vide **specific condition no. VIII** laid down that **“Mineral transportation after the 5th year shall be carried out only by rail”**.

The traffic study with respect to Nuagaon Iron Ore Mines is the extract of Traffic study for feasibility of Mineral transportation in Joda-barbil, Odisha done by Central Road Research Institute (CRRI), New Delhi.

INTRODUCTION

General

The mining industry in India is emerging as a giant in the field of Iron and Steel. The National steel policy envisages production of 110 million ton steel by 2020. Mining in Odisha is the second largest employer in India. Particularly, Keonjhar district is one such area which has seen a huge upsurge in mineral based industries. Keonjhar is one of the major mineral producing district of Odisha. It has a population of almost 1.8 million people (2011 census) and a population density of 217 (sq km). There is in need of proper traffic and transportation study to investigate the feasibility of mineral transportation by considering the future demand of Iron ore. Concerned with the problems of mineral transportation in the study area (Joda & Barbil), M/s Thriveni Consultancy Services has approached CSIR-Central Road Research Institute (CRRI) to conduct feasibility of mineral transportation on the existing road network.

As per provisional reports of Census of India, in the year 2011 the population of Keonjhar district was 18 Lakhs. Total registered motor vehicle in Odisha state in the year 2011 was 33.1 lakhs and the Compound Annual Growth Rate (CAGR) of registered vehicles in Odisha State was 11.4% (Road Transport Year Book 2007-09, MORTH, 2011. Freight vehicles growth from 2004 to 2011 in Odisha state observed is almost double from the national average. The freight vehicle growth in comparison with the national level is given in Table 1

Table 1 Freight Vehicle Growth in Odisha and India (Numbers)

Year	Odisha	India
2004-05	62,486	2,718,597
2005-06	74,432	2,951,779
2006-07	83,093	2,945,046
2007-08	91,154	3,166,553
2008-09	100,279	3,347,558
2009-10	109,804	3,504,491
2010-11	119,145	3,760,864
Growth	11.36%	5.56 %

(Source: Road Transport Year Book, MoRTH 2009 and MoRTH 2011)

Further, it was observed from the classified vehicle registration data that the percentage of truck traffic to the total traffic is about 24% for the year 2010 and 2011. The same for the year 2012 and 2013 is about 8%. This can be attributed to the closing of illegal mines in the Keonjhar and Barbil area.

Existing Road Network

The Keonjhar district emerged as one of the district on 1st January, 1948. The district is bounded by Mayurbhanj district and Bhadrak district to the east, Jajpur district to the south, Dhenkanal district and Sundargarh district to the west and West Singhbhum district of Jharkhand State to the north. Covering a geographical area of 8240 sq km. The existing road network in Keonjhar district includes 287km length of National Highway road network, 79 km length of State Highway, 78 km length of Major District roads and 367 km length of Other District roads. Also having 155 km length of Rail network. The entire study area falls in the Joda area; this is one of the block in Keonjhar district.

Existing Railway Network

The major parts of the minerals are transport to the different industries through the public railway sidings, which are existed within the 20-30 KM vicinity from the Nuagaon Iron Ore Mines. The public sidings with existing capacity rake capacity are given below.

PUBLIC RAILWAY SIDING IN THE AREA AND THEIR CAPACITY		
Name of siding	Number of loading line	Rake Capacity/Year (considering 3 rakes/line/day)
Joruri	2	2190
Banspani	3	3285
Nayagarh	3	3285
Bolani	1	1095
Barbil	3	3285
Deojhar	1	1095

As per the data from railway authority all the railway sidings are under utilisation considering the peak year production & dispatch during 2009-10. Further to augment the facility railway is making double laning of Jakhapura - Keonjhar-Noamundi railway line & tri-lanning of railway line from Noamundi to Tata-Nagar.

OBJECTIVE AND SCOPE OF THE STUDY

- The main objective this study is to conduct appropriate field and traffic studies to study the feasibility of mineral transportation on National Highway (NH 215) and various State Highways passing through Study Area (Joda Barbil)
- To estimate freight and passenger traffic volume on study road network and estimation of delay at the intersections.
- Traffic data analysis and demand forecasting up to 10 years span with 5years span interval phase wise as per IRC guidelines.
- Estimation of future traffic and its distribution at peak hours for each intersection for the next 10 years.
- Short term and Long term improvement plans and suggestions for Identified Intersections on study corridor to minimize the freight traffic congestion.

With respect to Nuagaon Iron Ore Mines two intersections are taken on NH-215 for the detailed study.

METHODOLOGY

Initially, reconnaissance survey was carried out to understand the study requirements of the selected intersections and road corridors, site constraints, available carriageway and Right of Way (ROW) width and physical inspection of encroachment if any. The study team also held discussions with client officials to understand Secondary data requirements which includes existing operating Iron mining locations and railway sidings in the study area, Existing capacity of mines and railway sidings and entry and exist truck information data at various railway sidings in Joda Barbil. Further various traffic studies required for junction improvements like classified traffic volume, speed and delay surveys and video graphic surveys were carried out to assess the existing traffic situations on identified intersection of study rod network.

Four stage travel demand model was adopted for modeling truck demand for base and horizon year. Mineral production data of each zone was considered as production of each zone and truck data at each railways siding considered as attractions of each zone. Truck assignment was done by considering all or Nothing (AON) assignment and User Equilibrium (UE) methods. These entire procedures were done through VISUM software (VISUM). The developed base year model was validated by comparing with field traffic data. Further, horizon year truck demand was estimated by considering the future capacity enhancement of each mine. Keeping in view the ground conditions and traffic characteristics the intersection improvement plans for all the identified intersections were arrived at. The improvement plans have been conceived conforming to IRC SP- 41 and IRC 65

TRAFFIC DATA COLLECTION

Turning Movement Traffic Data Collection: Turning movement traffic surveys were carried out on normal working days of the week for a 24-hour period from 9:00 AM to 9:00 AM at identified 3 intersections were carried out.

Traffic data Collection and analysis

SI No.	Name of the Intersection	Date of Survey	Survey Period
1	KJSA Mines Intersection	24.02.2014	24 hours
2	Rugudih Intersection	24.02.2014	24 hours
3	Bhadrasahi Intersection	21.02.2014	24 hours

Junction wise detail traffic analysis given below.

KJSA Mines Intersection

This is a three arm intersection formed by meeting of KJSA Mines road with NH-215. Heavy truck traffic movement at this intersection was observed due to mines which are in close vicinity to this intersection. Particularly Heavy movement of truck traffic is observed during field survey, from mines towards Rugudih and vice versa. Large traffic delay is prominent during evening peak hours at this intersection. Figure below shows the top view of the KJSA Intersection.



The hourly variation of the total traffic volume observed at this intersection along with the vehicle composition is presented in **Figure1.1 below**. Some of the main observations from these figures are discussed as follows

Observations from traffic flow vehicular composition:

The total traffic volume observed at this intersection during 24 hours survey period is 8944 vehicles (22274 PCUs). The morning peak hour traffic is about 353 vehicles (658 PCUs) found between 10:00 AM to 11:00 AM. Evening Peak hour traffic about 650 vehicles (1563 PCUs) observed between 19:00PM to 20:00 PM.

From Figure 1.2 It can be observed that truck traffic including 2 Axial and 3 Axial (76%) are having predominant share than the 2 wheeler (11%) followed by car (8%) and LCV 3%. Cycle share is 2%.

Observations from Turning Movement flow:

The turning movement traffic flow during morning peak hour and evening peak hour is presented in **Figure 1.3**, from this it can be inferred that the maximum amount of traffic is plying in the directions of Rugudih to KJSA mines (658 PCUs) and evening peak hour flow in this direction is (1563 PCUs) higher than the morning peak hour traffic.

Total Traffic details at KJSA Junction – 24.02.2014												Grand Total (PCUs)
Time	2 Axle Trucks	3 Axle Trucks	Multi Axles Vehicles	Mini Bus	Bus	Car	2W	LCV	Cycle s	Aut o	Other s	Grand Total (vehicle s)
8:00-9:00	130	6	0	4	2	39	66	19	5	0	4	275
9:00-10:00	135	8	0	4	2	111	30	4	3	0	4	301
10:00-11:00	160	6	0	0	0	46	100	26	11	1	3	353
11:00-12:00	168	1	0	1	2	41	80	8	6	0	2	309
12:00-13:00	165	13	0	1	0	46	97	14	4	0	7	347
13:00-14:00	153	11	0	1	1	43	101	17	2	1	4	334
14:00-15:00	162	12	0	0	1	26	67	19	2	1	2	292
15:00-16:00	179	14	0	0	2	39	57	11	3	0	2	307
16:00-17:00	230	13	0	0	1	36	63	22	11	0	1	377
17:00-18:00	232	54	0	0	2	53	65	19	16	2	2	445
18:00-19:00	258	70	4	1	3	49	61	22	14	1	4	487
19:00-20:00	433	23	1	0	1	62	74	38	14	0	4	650
20:00-21:00	392	33	5	0	0	40	37	11	4	1	2	525
21:00-22:00	294	31	0	0	0	22	17	5	1	0	2	372
22:00-23:00	245	50	0	0	1	11	10	3	1	0	0	321
23:00-00:00	314	36	0	0	0	3	3	3	0	2	0	361
00:00-01:00	387	92	0	0	0	1	2	0	0	0	5	487
01:00-02:00	379	66	0	0	1	0	1	0	0	0	0	447
02:00-03:00	385	62	0	0	0	0	0	0	0	0	1	448
03:00-04:00	287	59	1	0	0	1	0	0	0	0	0	348
04:00-05:00	309	75	1	0	0	3	2	0	0	0	0	390
05:00-06:00	238	39	0	0	0	3	1	2	1	0	1	285
06:00-07:00	142	54	0	0	0	29	35	13	14	0	0	287
07:00-08:00	68	38	0	0	0	36	33	11	10	0	0	196
Total	5845	866	12	12	19	740	1002	267	122	9	50	8944
Percentage	65.4%	9.7%	0.1%	0.1%	0.2%	8.3%	11.2%	3.0%	1.4%	0.1%	0.6%	100.0%

Fig- 1.1

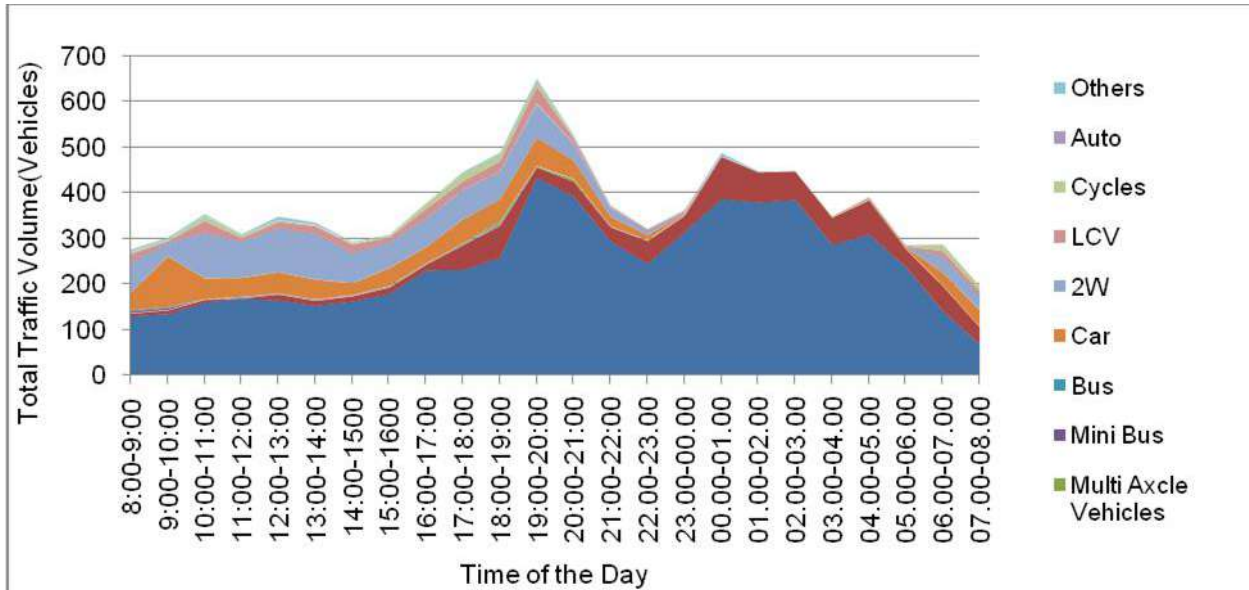


Fig-1.2

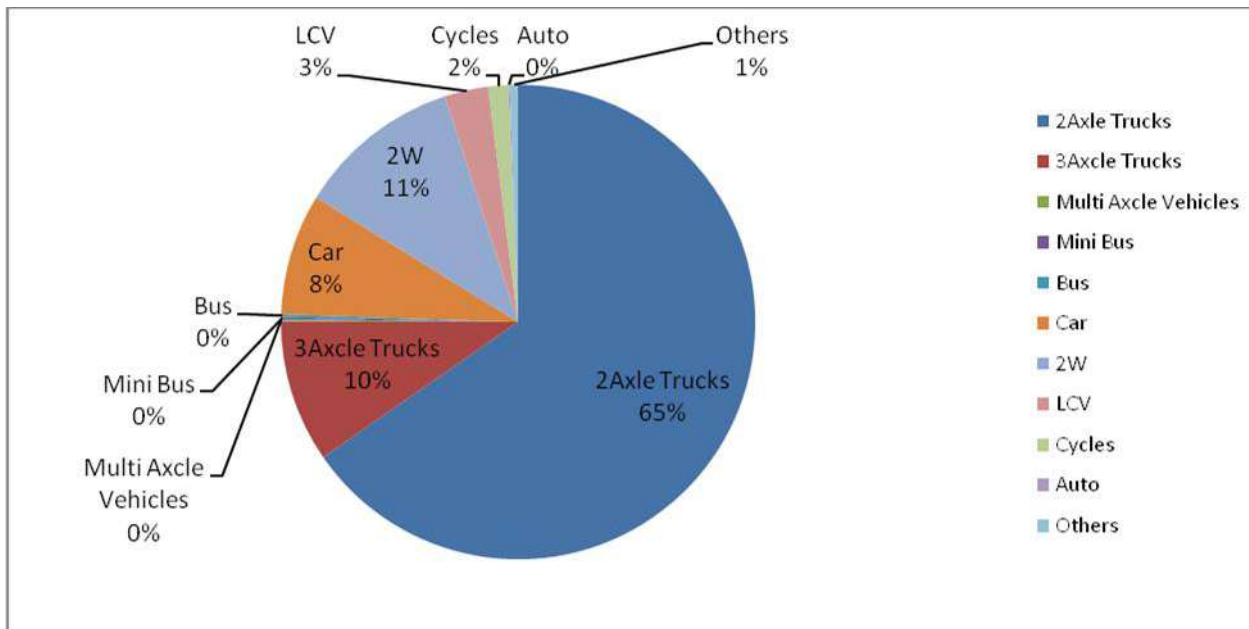
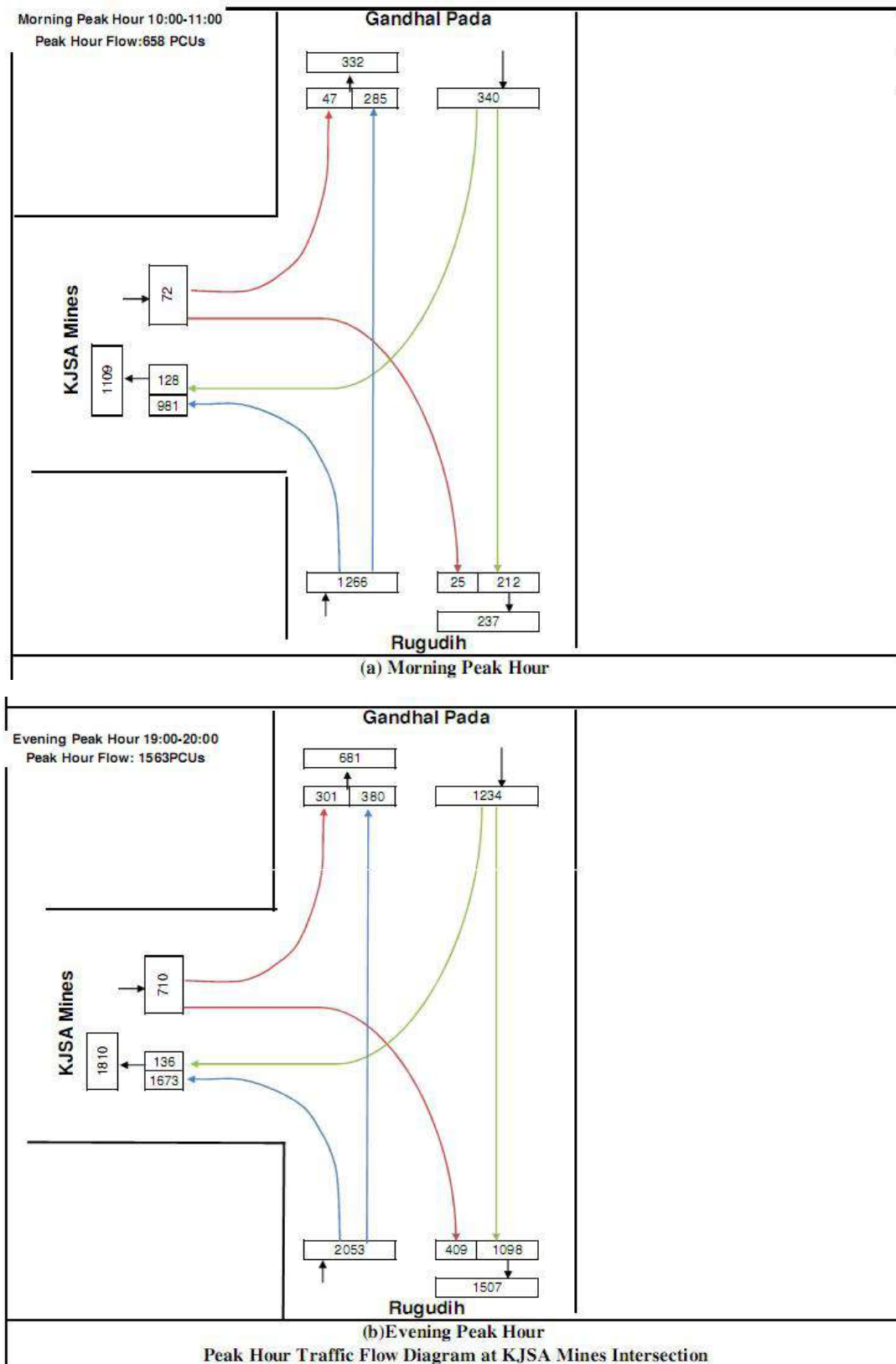


Fig-1.3



Rugudih Intersection

This is a three arm intersection which lies on NH-215 and formed by meeting of Bhadrasahi to Gandhalpada road and KJSA Mines road. Due to mines in close vicinity, truck movement is heavy for the entire day. **Figure below** shows the top view of the Rugudih Intersection.



The hourly variation of the total traffic volume observed at this intersection along with the vehicle composition is presented in **Figure 2.1 and 2.2** .Some of the main observations from these figures are discussed as follows

Observations from traffic flow vehicular composition:

The total traffic volume observed at this intersection during 24 hours survey period 10,284 vehicles (24,120 PCUs). The Morning peak hour of the traffic volume is about 456 vehicles (707 PCUs) observed between 11:00 AM to 12:00 AM and Evening Peak hour traffic about 703 vehicles (2,120 PCUs) observed between 2:00 PM to 3:00 PM.

From the **Figure 2.2** it can be observed that truck traffic (71.0%) are having predominant share than the 2 wheelers (18.0%) and car (8%). The bus and mini bus share is less than 1%. Cycle share is (1.0%).

Observations from Turning Movement flow:

The turning movement traffic flow during morning peak hour and evening peak hour is presented in **Figure 2.3**, from this it can be inferred that the traffic is plying in the directions of KJS Ahluwalia to Bhadrasahi (707 PCUs) between 11:00 to 12:00 AM and evening peak hour flow in this directions is (2,120 PCUs) between 2:00 to 3:00 PM which is greater than the morning peak hour.

Total traffic details at Rugudi Junction – 24.02.2014

Time	2 Axle Trucks	3 Axle Trucks	Multi Axle Vehicles	Mini Bus	Bus	Car	2W	LCV	Cycles	Auto	Others	Grand Total (vehicles)	Grand Total (PCUs)
8:00-9:00	105	49	0	0	0	41	83	10	4	0	0	292	562
9:00-10:00	141	17	0	1	0	54	86	11	2	0	0	312	590
10:00-11:00	116	5	0	0	1	73	209	22	6	0	0	432	580
11:00-12:00	158	8	1	0	1	76	181	19	12	0	0	456	707
12:00-13:00	74	11	0	0	1	66	202	29	4	0	0	387	471
13:00-14:00	91	6	0	1	1	49	124	8	0	0	0	280	419
14:00-15:00	118	9	3	0	0	45	88	13	2	0	1	279	510
15:00-16:00	152	4	2	2	3	78	151	14	5	0	0	411	666
16:00-17:00	118	6	1	0	1	68	154	17	4	0	2	371	564
17:00-18:00	104	25	3	0	1	64	187	27	7	0	0	418	605
18:00-19:00	204	45	7	0	0	58	143	22	6	0	0	485	944
19:00-20:00	190	94	7	0	0	34	84	11	1	0	0	421	977
20:00-21:00	56	45	3	0	0	14	10	0	1	0	0	129	336
21:00-22:00	216	169	2	0	0	25	43	3	0	0	0	458	1215
22:00-23:00	308	170	0	0	1	25	13	3	0	0	0	520	1473
23:00-00:00	295	117	2	0	0	21	5	3	0	0	0	443	1273
00:00-01:00	376	175	0	0	0	10	6	3	0	0	1	571	1677
01:00-02:00	299	127	2	0	0	21	4	10	0	0	0	463	1325
02:00-03:00	403	282	11	0	4	1	1	1	0	0	0	703	2120
03:00-04:00	271	238	0	0	0	1	1	1	1	0	0	513	1531
04:00-05:00	256	266	3	0	0	5	2	3	3	0	0	538	1592
05:00-06:00	324	269	3	0	3	4	11	8	3	0	0	625	1825
06:00-07:00	201	154	14	0	4	7	14	15	3	0	0	412	1178
07:00-08:00	149	151	5	0	5	19	22	11	3	0	0	365	986
Total	4725	2442	69	4	26	859	1824	264	67	0	4	10284	24120
Percentage	45.9%	23.7%	0.7%	0.0%	0.3%	8.4%	17.7%	2.6%	0.7%	0.0%	0.0%	100.0%	

Fig-2.1

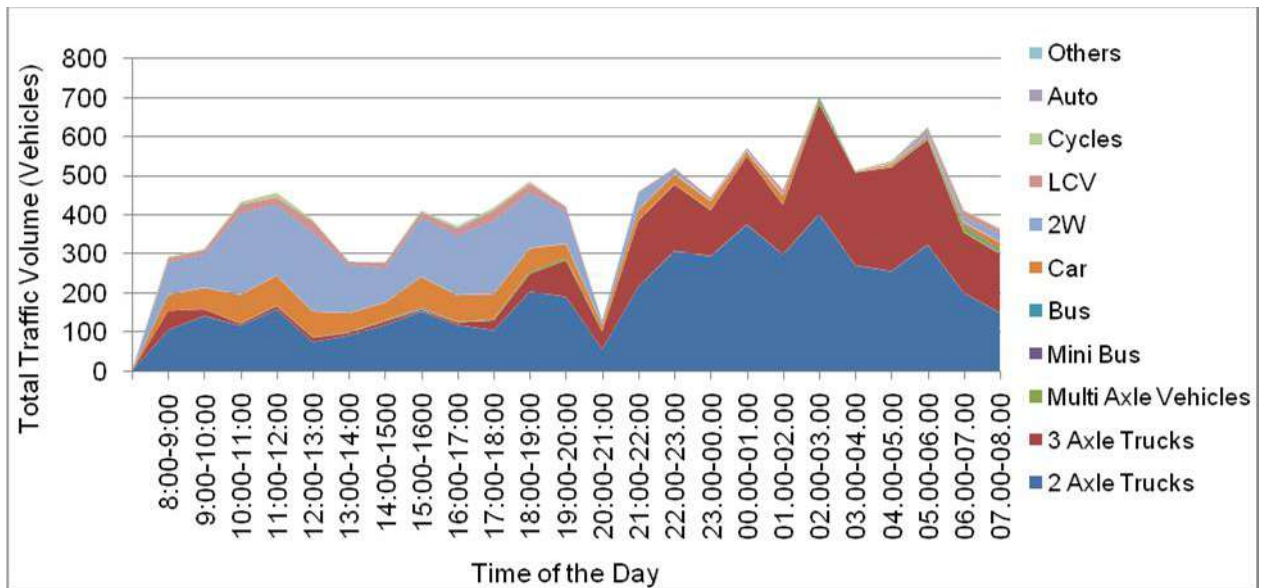


Fig-2.2

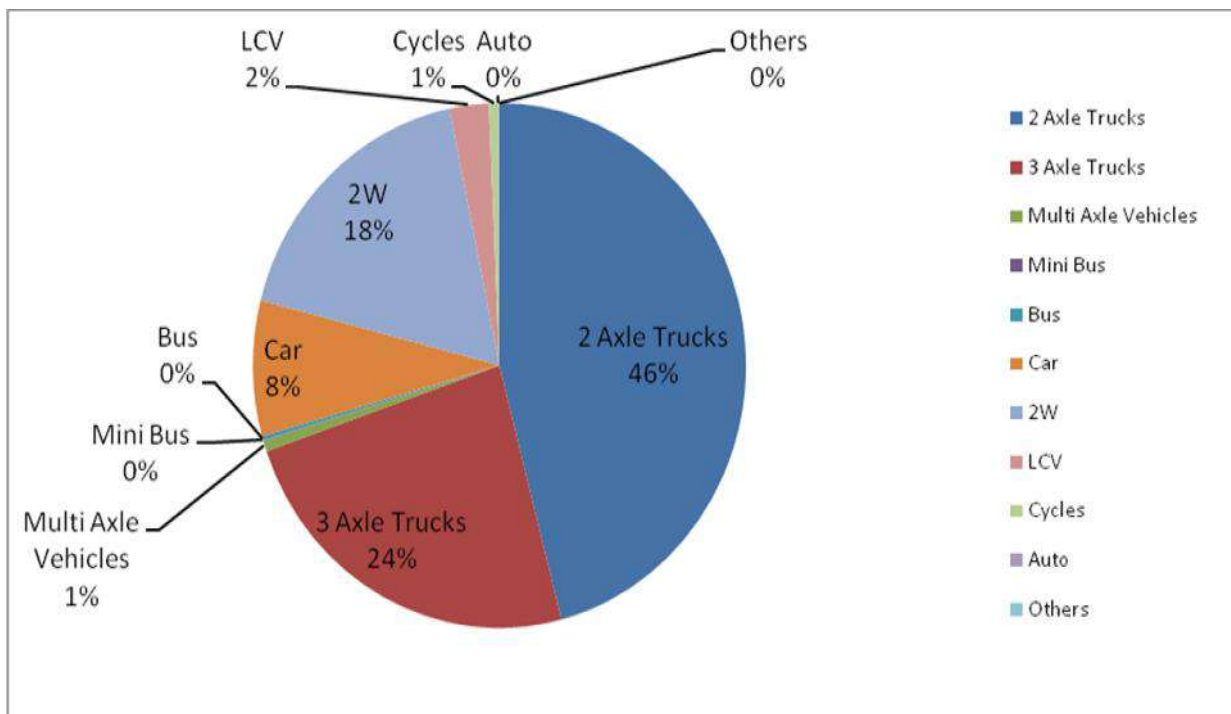
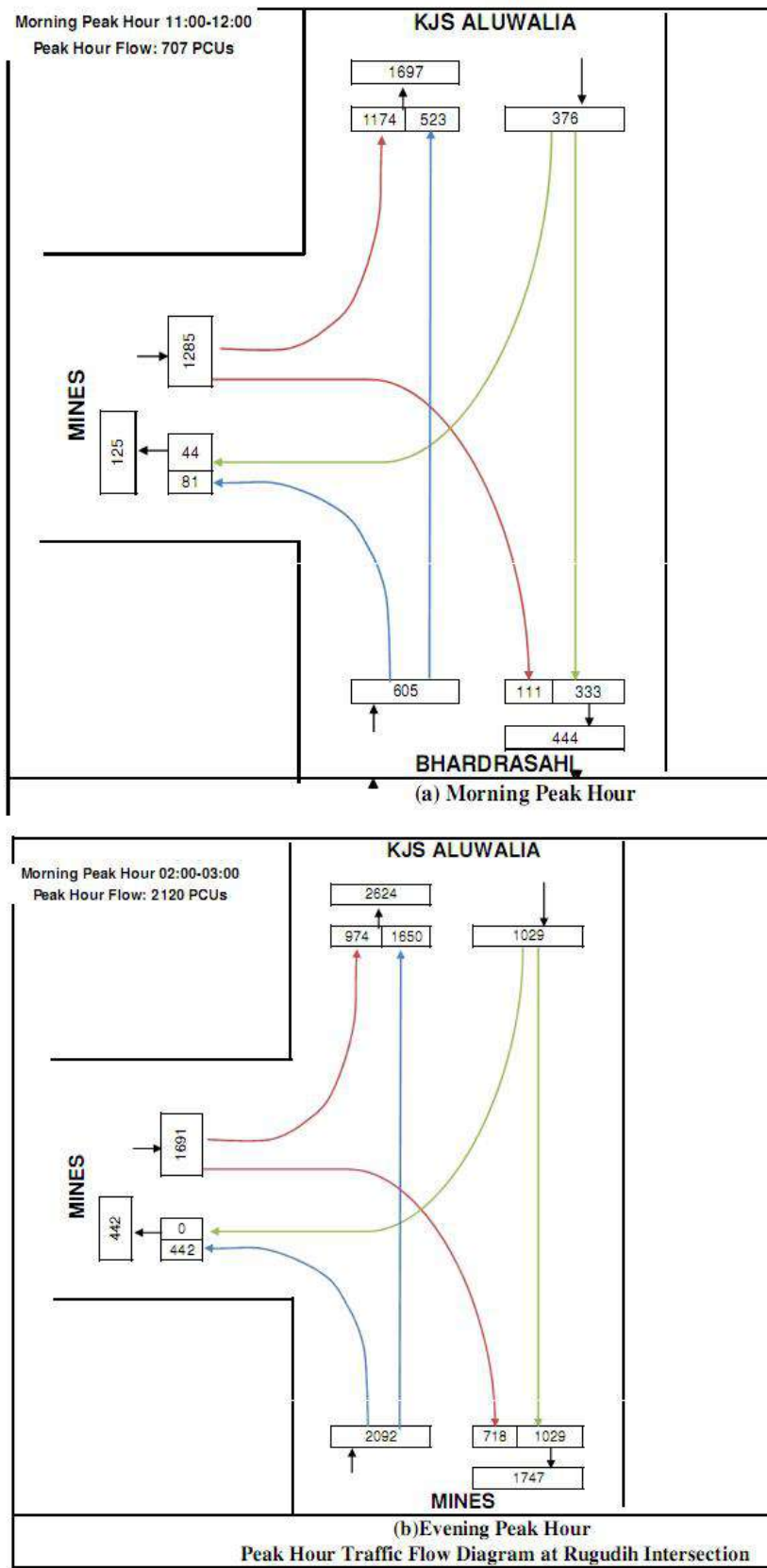
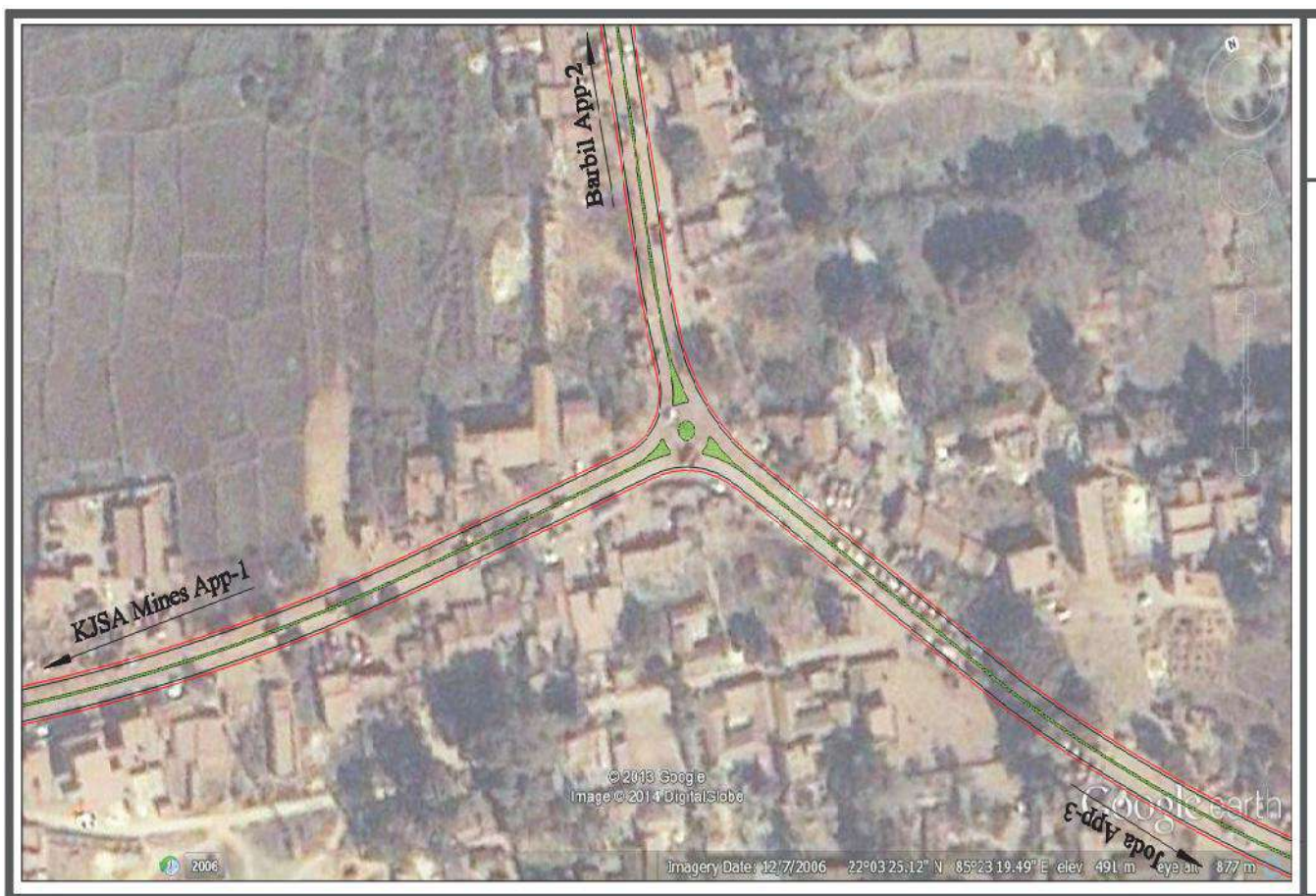


Fig-2.3



Bhadrasahi Intersection

This is a three arm intersection falling on NH-215. This intersection is formed by meeting of Barbil road with NH-215. BRPL mineral industry is located near to this intersection. A statue of “Biju Patnaik” former chief minister of Odisha is located at the centre of Intersection which forms this intersection a rotary intersection. Figure below shows the top view of the Bhadrasahi Intersection. Truck traffic movement is more at this intersection thought the entire day and night.



The hourly variation of the total traffic volume observed at this intersection along with the vehicle composition is presented in **Figure 3.1 and 3.2**. Some of the main observations from these figures are discussed as follows

Observations from traffic flow vehicular composition:

The total traffic volume observed at this intersection during 24 hours survey period is 20,663 vehicles (35,554 PCUs). The morning peak hour traffic is about 814 vehicles (1,337 PCUs) found between 08:00 AM to 09:00 AM. Evening Peak hour traffic about 1,000 vehicles (2,753 PCUs) observed between 12:00 AM to 1:00 AM.

From the **Figure 3.2** it can be observed that two wheelers (30.1%) are having predominant share than the cars (21.7%) followed by Autos 0.5%. Cycle share is 1.0% and share of buses and minibus is about 1.3% and 0.4%. The percentage of 2Axle Trucks is 22.4% ,3Axle Trucks is 16% ,Multi Axle Trucks is vehicles was about 0.5%.

Observations from Turning Movement flow:

The turning movement traffic flow during morning peak hour and evening peak hour is presented in **Figure 3.3**, from this it can be inferred that the maximum amount of traffic is plying in the directions of Joda to Nalda Gate (1,274 PCUs) and evening peak hour flow in this direction higher than the morning peak hour traffic.

Total traffic details at Bhadrasahi junction – 21.02.2014

Time	2Axle Trucks	3Axle Trucks	Multi Axcle Vehicles	Mini Bus	Bus	Car	2W	LCV	Cycles	Auto	Others	Grand Total (vehicles)	Grand Total (PCUs)
8:00-9:00	185	36	10	12	18	168	225	86	34	22	18	814	1337
9:00-10:00	51	3	2	4	13	236	496	83	24	6	6	924	879
10:00-11:00	24	0	1	7	14	250	693	83	18	7	10	1107	926
11:00-12:00	12	1	0	4	11	286	618	81	11	5	6	1035	841
12:00-13:00	14	9	0	3	19	284	465	64	14	4	8	884	802
13:00-14:00	16	1	0	1	9	190	369	47	10	2	5	650	562
14:00-15:00	23	6	0	5	14	227	427	54	8	3	4	771	689
15:00-16:00	18	1	1	1	15	221	454	60	10	2	6	789	689
16:00-17:00	27	3	0	6	11	294	497	83	19	4	4	948	837
17:00-18:00	144	7	2	4	17	349	547	95	21	2	12	1200	1369
18:00-19:00	219	5	0	5	10	461	504	74	12	7	17	1314	1649
19:00-20:00	265	75	1	2	13	322	312	71	0	0	2	1063	1663
20:00-21:00	349	164	0	0	5	92	101	16	0	1	0	728	1722
21:00-22:00	250	190	9	4	18	134	74	65	2	11	3	760	1719
22:00-23:00	267	267	13	1	2	83	41	32	0	4	2	712	1836
23:00-00:00	335	244	16	2	1	89	36	36	0	4	4	767	2004
00:00-01:00	422	437	8	3	1	71	35	21	0	0	2	1000	2753
01:00-02:00	294	139	0	0	0	7	6	3	0	0	1	450	1320
02:00-03:00	317	164	2	0	1	13	5	7	0	0	0	509	1481
03:00-04:00	262	220	3	2	10	70	25	36	0	0	0	628	1629
04:00-05:00	275	309	7	1	10	75	40	40	0	1	2	760	1983
05:00-06:00	300	362	14	4	12	102	63	58	5	2	2	924	2328
06:00-07:00	284	348	4	8	25	143	99	78	14	3	9	1015	2375
07:00-08:00	273	325	6	4	16	114	85	67	13	4	4	911	2167
Total	4626	3316	99	83	265	4281	6217	1340	215	94	127	20663	35554
Percentage	22.4%	16.0%	0.5%	0.4%	1.3%	20.7%	30.1%	6.5%	1.0%	0.5%	0.6%	100.0%	

Fig -3.1

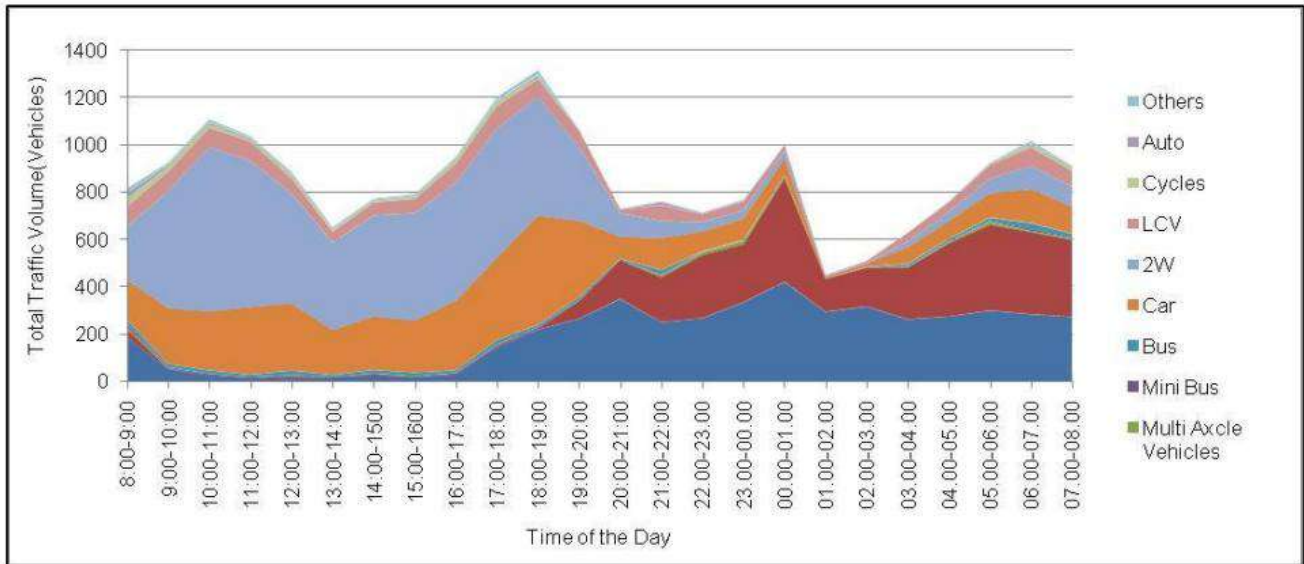


Fig-3.2

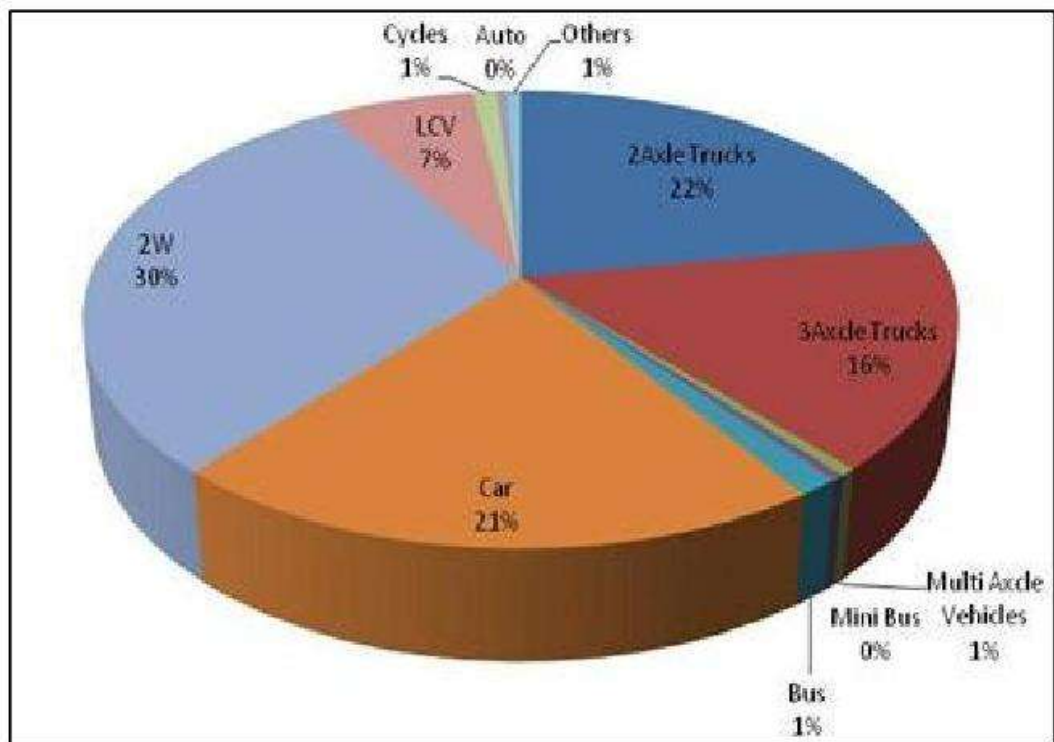
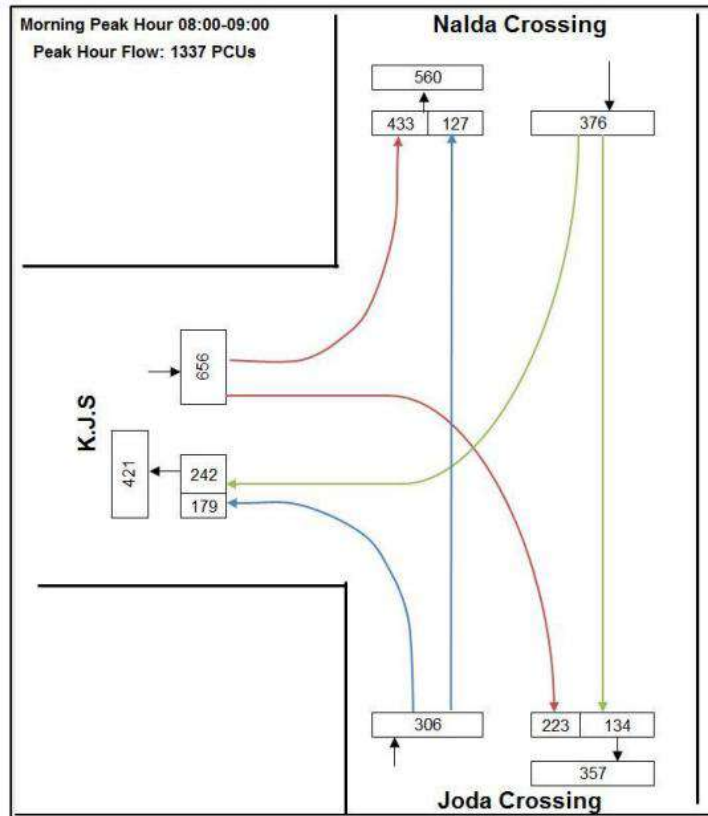
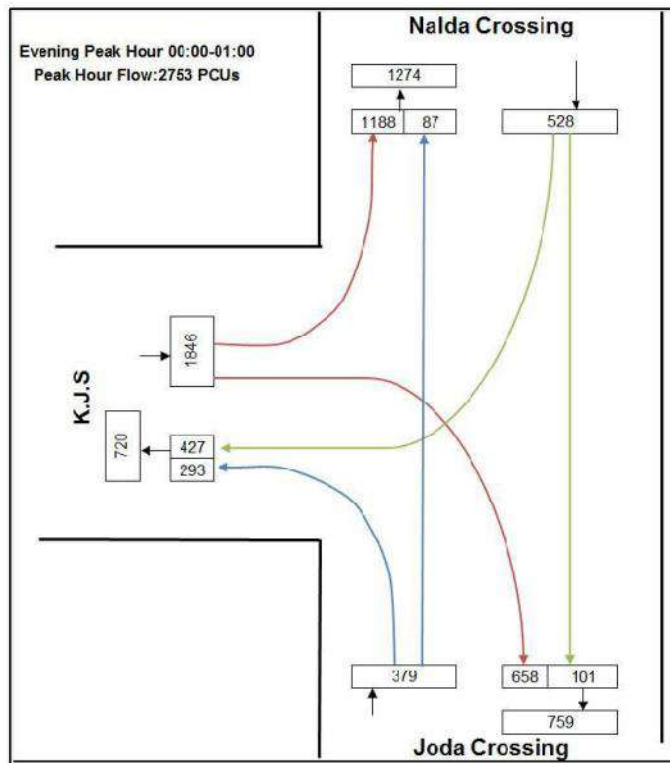


Fig-3.4



Morning Peak Hour (08:00AM to 09:00AM)



Evening Peak Hour (00:00 to 01:00 PM)

SUMMARY OF TRAFFIC IN ALL THE THREE JUNCTION

Intersection No	Name of the Intersection	Survey Period	All Traffic (PCU)	Peak Hour Traffic (PCU)
1	Near KJSA Mines Intersection	24 Hours	22274	1563
2	Rugudih Intersection	24 Hours	24120	2120
3	Bhadrasahi Intersection	24 Hours	35554	2753

PERFORMANCE EVALUATION OF ROAD NETWORK

Volume- Capacity Ratio for Base Year

Volume - Capacity ratio has been determined for various road links falling in the influence region of the study area. The Volume - Capacity (V/C) ratio is one of the simplest methods for arriving at the Level of Service (LOS) offered by the road. The capacities have been obtained according to the type of road. In this study capacity values for assessing the V/C has been considered from IRC SP 30, Manual on Economic Evaluation of Highway Projects in India and the same has been presented in Table 4.

Table 4 Capacity Values for Assessing the Effect of Congestion

S.No	Road Details	Maximum Capacity PCU/Hr
1	Single Lane (3.75 mts Carriageway)	600 (both directions)
2	Intermediate Lane (5.5mts Carriageway)	1600 (both directions)
3	Two Lane (7 mts Carriage way)	3000 (both directions)
4	Four Lane (7mts Carriageway on each direction)	4300 (one direction viz the major Flow)

Source: IRC SP 30 Manual on Economic Evaluation of Highway Projects in India

Estimation of Volume by Capacity Ratio for Base Year (2014)

The volume by capacity ratio for base year 2014 is estimated by considering capacity volume of each line as discussed in earlier sections. It can be inferred that the V/C ratio is less than 0.7 on all the approach roads of intersections

Volume - Capacity Ratio for Major road Links in the Study Area for Base Year- Intersections

Name of the Intersection	Approach -1				Approach-2				Approach-3			
	Width of Carriage way	Peak hour Volume (PCU)	Capacity (PCU)	V/C	Width of Carriage way	Peak hour Volume (PCU)	Capacity (PCU)	V/C	Width of Carriage way	Peak hour Volume (PCU)	Capacity (PCU)	V/C
KJSA Mines	6.0	983	1600	0.61	7.0	751	3000	0.25	7.0	1391	3000	0.46
	Mines road				Towards Gadhalpada (NH-215)				Towards Bhadrasahi (NH-215)			
Rugudih	6.0	929	1600	0.58	7.5	1563	3000	0.52	7.5	1748	3000	0.58
	Village road connecting to Mines				Gadhalpada road (NH-215)				Towards Bhadrasahi (NH-215)			
Bhadrasahi	7.1	2565	3000	0.86	7.5	1802	3000	0.60	6.8	1138	3000	0.38
	From Rugudi (NH-215)				Towards Barbil				Towards Joda (NH-215)			

The V/C ratio of intersection points i.e. KJSA Mines, Rugudih and Bhadrasahi are 0.44, 0.56 and 0.61 respectively. **The average V/C ratio in this stretch of the road is 0.53.** This indicates that LOS of the above road links in the influence region of the study area falls under **LOS category slightly above than “B”**. As per IRC 64:1990, LOS B indicates that the V/C value is less than 0.50.

Estimation of Volume - Capacity Ratio by Considering Ongoing Improvements In the study road network,

Road widening on NH 215:

NH215 is widening from two lane road to four lane divided carriageway. Due to this the capacity will be increased on various approach arms of intersection falling on NH215. The corresponding Volume by Capacity ratio has been estimated based on the revised capacity on all approach arms falling on NH 215 and presented in Table given below.

Volume - Capacity Ratio for Major road Links in the Study Area for ongoing improvements

Name of the Intersection	Approach -1				Approach-2				Approach-3			
	Width of Carriage way	Peak hour Volume (PCU)	Capacity (PCU)	V/C	Width of Carriageway	Peak hour Volume (PCU)	Capacity (PCU)	V/C	Width of Carriageway	Peak hour Volume (PCU)	Capacity (PCU)	V/C
KJSA Mines	7.0	983	3000	0.33	7.0 m on each side	376	4300	0.09	7.0 m on each side	696	4300	0.16
	Mines road				Towards Gadhalpada (NH-215)				Towards Bhadrasahi (NH-215)			
Rugudih	6.0	929	1600	0.58	7.0 m on each side	782	4300	0.18	7.0 m on each side	874	4300	0.20
	Village road connecting to Mines				Gadhalpada road (NH-215)				Towards Bhadrasahi (NH-215)			
Bhadrasahi	7.0 m on each side	1283	4300	0.30	7.5m	1802	3000	0.60	7.0 m on each side	1138	4300	0.26
	From Rugudi (NH-215)				Towards Barbil				Towards Joda (NH-215)			

By considering the expansion of NH-215 it can be inferred that the V/C ratio is less than 0.7 on all approach roads.

The V/C ratio of intersection points i.e. KJSA Mines, Rugudih and Bhadrasahi are 0.19, 0.32 and 0.38 respectively. **The average V/C ratio in this stretch of the road is 0.29.**

As per the detailed study conducted as above on transportation, one can conclude that the existing public railway sidings which are connected through NH-215 (expansion to 4 lanes) is adequate enough to facilitate the transportation.



भारतीय राष्ट्रीय राजमार्ग प्राधिकरण

(सड़क परिवहन और राजमार्ग मंत्रालय)

National Highways Authority of India

(Ministry of Road Transport & Highways)

परियोजना कार्यान्वयन इकाई / Project Implementation Unit

Badadera, Mandua, Keonjhar - 758014, Odisha

Phone / Fax.: (06766) 253295
E-mail: pdnhai.kjr@gmail.com

NHAI/11016/1/Misc.Tec.Cor./2012/PIU/KJR/ 5848

25.02.2014

To

Dr. Ch. Ravi Sekhar
Senior Scientist & Project Leader,
Transportation Planning Division,
Central Road Research Institute,
Delhi - Mathura Road, PO CRRI,
New Delhi - 110025.

Sub: Study for Feasibility of Mineral Transportation in Joda BarBIL, Odisha sponsored by M/s. Thriveni Consultancy Services, Keonjhar, Odisha - Request for information of Right of details and Time series data of Traffic Volume on various road lines in Joda Barbil, Odisha and West Singh Bhum in Jharkhand.

Ref: Your letter No.1(JB)/TP/14 dt. 22.02.2014.

Sir,

With reference to above cited subject, it is to inform that the stretch from Rimuli to Rajamunda Section of NH - 215 has been entrusted to M/s. Orissa Steel Expressway Pvt. Ltd. for construction of four laning. Further, it is to inform that the DPR Consultant, M/s. Lea Associates South Asia Pvt. Ltd. has been conducted the traffic survey at Km.177.00 (VIII - Bileipada, 16850 PCU) and Km.226.600 (VIII - Toda Reserve Forest, 11713 PCU). The traffic data has been derived during the year 2011 by the DPR Consultant.

Further, it is to inform that the RoW is available for construction of four laning 60 meter through out the stretch from Rimuli to Rajamunda Section of NH - 215.

This is for kind information.

Yours faithfully,

(V. Durga Prasad)
Dy.G.M.(T) & Project Director.

E:\Pratap\Technical\Misc. Technical\Misc. Technical Correspondence.docx

Corporate Office : G 5 & 6, Sector - 10, Dwarka, New Delhi-110 075, Phone : 91-011-25074100 / 25074200
Fax : 25093507 / 25093514, Website : <http://www.nhai.org>



भारतीय राष्ट्रीय राजमार्ग प्राधिकरण

(सड़क परिवहन और राजमार्ग मंत्रालय)

National Highways Authority of India

(Ministry of Road Transport & Highways)

परियोजना कार्यान्वयन इकाई / Project Implementation Unit

Badadera, Mandua, Keonjhar - 758014, Odisha

Phone / Fax.: (06766) 253295

E-mail: pdnhai.kjr@gmail.com

NHAI/11012/7/RO (CRRI)/2012/PIU/KJR/ 7092

Date: 13.03.15

To,

The Regional Officer,
Regional Office Odisha,
National Highways Authority of India.
Pal Heights, Plot No. J/7, Jaydev Vihar,
Bhubaneswar - 751 013.

Sub: Four Lanning of Rimuli-Roxy-Rajamunda section of NH-215, Ch. From M163+000 to KM269+000 (Design Ch. KM163+00 to KM259+453), in the State of Orissa under NHDP Phase- III, on Built Operate and Transfer (BOT) basis.

Traffic Study Report of Central Road Research Institute (CRRI), Govt. Of India - reg.

Ref: Letter no. NHAI/13011/5/RO/OD/3455/2014 dated 13.01.2015 of Regional office, Odisha.

Sir,

Please refer the letter as cited above. In response of the letter, vide letter No.7072 dt.10.03.2015, PIU forwarded the 'Traffic Study Report of Central Road Research Institute (C.R.R.I) Govt of India' to the Team Leader, M/s- Unihorn India Pvt. Ltd, IE of the project to examine the report.

In response of the PIU's letter, I.E has examined/reviewed the report and communicated vide letter NoUNI/RR/NH215/BOT/PIU/959, dt.12.03.2015 with views on traffic study report of C.R.R.I as follows:

1. An appropriate traffic studies have been conducted for the 18 Nos of intersections out of which 08 Nos of intersections are on NH-215 but the 04 Nos of these intersections are more important for the present study area and necessary recommendations have been made for the improvements for making the same more efficient for transportation of proposal increased output of minerals from the mine areas to the railway sidings via NH-215.
2. All these recommendations are already included in the "Detailed Project Report" for NH-215 for implementation during development period.
3. After completion of NH-215, the volume/ capacity ratio will work out to 0.29.
4. Presently NH-215 is being upgraded to 4-lane divided highway and development work is already in progress.
5. Hence it can be safely concluded that the concerned stretch of NH-215 after expansion to 4-lanes will be adequate enough to facilitate transportation of revised increase output of mines to the existing public railway Sidings.

The above referred I.E's report in connection with the captioned subject has been reviewed by the PIU and here by forwarded for further necessary action please.

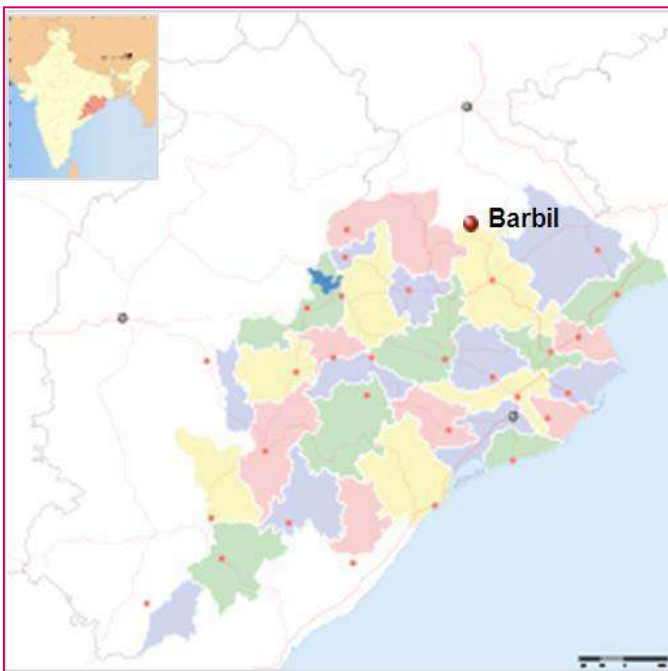
Encl: Copy of IE's letter.

Yours faithfully,

[Signature]
13/03/15
Manager (Tech), NHAI.
For, Project Director.

M/S KJS AHLUWALIA**(Nuagaon Iron Ore Mines, Dist. Keonjhar, Orissa)**

**Pre-feasibility Survey Report
of
Alternative Transport system for Transportation
of minerals from Nuagaon Iron ore mine to
nearby existing Railway Siding.
(February 2014)**



DISCLAIMER

This is an internal document and is intended for the sole use of the Client '**M/s. KJS Ahluwalia, Nuagaon Iron Ore Mines**'. The information in this Report has been prepared based on information collected from primary & secondary sources, factual information made available and consultations with the client, designated officers and the other stakeholders involved in the assignment.

This report has been prepared by a'XYKno Infrastructure Pvt. Ltd for its client, M/s. KJS Ahluwalia for its use for furthering the mining project before MoEFCC. No external agency shall use any part of this report without the prior permission from M/s. KJS Ahluwalia and a'XYKno. The information contained in this Report is strictly confidential for the client's use only and is specific to the particular project under specific circumstances and is not considered replicable or suitable for other projects. The information and the report are also subject to updating, expansion, revision and amendment. This Report includes certain statements, estimates, projections and forecasts. Such statements, estimates, projections, targets and forecasts are based on the information provided by the concerned authorities.

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of
**Alternative Transport system such as
dedicated railway siding Transportation of
minerals from Nuagaon Iron ore Mine**

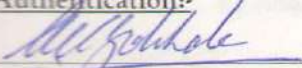
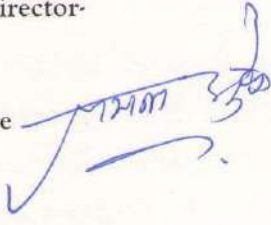
(February 2014)

Prepared By:-

a'XYkno Infrastructure Pvt. Ltd.

Leela Vista, Level 3
West High Court Road,
Bajaj Nagar Nagpur,
Maharashtra India. Pin 440010.

Authentication:-


Ketan K. Gokhale
IRTS, Ex. Managing Director
Konkan Railway
Jayant S. Ukey
Sr. Leader- Infrastructure 

Curriculum Vitae (CV) of Professional Personnel

1. Name of Personnel : Dr. Ketan Gokhale
2. Date of Birth : 21st June 1947
3. Nationality : Indian
4. Educational Qualifications :

Sr. No.	Educational Qualification	College/ University	Year
1.	Doctorate in Management Science	University of Pune	1979
2.	Post Graduate in Structural Engineering	VJTI, Mumbai	1974
3.	B.E. (Civil)	College of Engineering , Pune	1971

5. Employment Record :

Sr. No.	Period from	Name of Employer/Firm	Position held	Brief Description of Duties
1.	2007 Till Date	a'XYKno Capital Services Limited	Sr. Technical (Railway) Expert	Working on Development of Special projects like Railway, Bus Station, Transport Planning and Commercial Complex etc.
2.	2000 to July 2007	Konkan Railway Corporation Limited (KRCL).	Managing Director	He has been responsible for bringing in numerous new activities such as Roll-On Roll-Off Services, Anti Collision Devices etc. in Konkan Railway. During his tenure in Konkan Railway in addition to managing the Rs. 8000 crore project of constructing new railway line from Reasi to Kazigund in Kashmir he was also associated with building 8 flyovers in Jharkhand. For these works, Konkan Railway was adjudged amongst top ten construction companies in India by CONSTRUCTION WORLD IN 2005 and 2006
3.	1971-2000	Indian Railway Traffic Service	Class I officer	He joined Indian Railways as a class I officer belonging to Indian Railway

	(IRTS)		Traffic Service (IRTS) in Nov 71 and has worked in different branches of transportation, safety, training and general management for 29 years before joining KRCL as director Operations in 2000. He has been awarded number of medals and shields for achieving excellence in his work in Indian Railways.
--	--------	--	---

6. List of projects on which the Personnel has worked

Name of Project	Description of Responsibilities
1. Consultant for Development of 226 Bus stations in Uttar Pradesh on Public Private Partnership Model at Lucknow, U.P.	As a senior team member and Technical expert handling the entire project and provide expert inputs for preparation of project Feasibility report, Assessing the existing facilities and suggest proposed facilities in the separable land. Technical expertise for finalizing Detailed Project and Project supervision. Suggests manuals for variety of maintenance skills, Responds to emergency situations and safety concerns
2. Engagement of Transaction Advisor for Development of Bus Terminus at Fourteen Locations across Uttarakhand	
3. Modernization of Bus station across the state - Selection as a Consultant for planning of pilot project at Ratnagiri.	
4. Consultant for Preparation of Technical and Financial Feasibility study, Master plan, business Plan and providing Transaction and bid Advisory services for Development/ Redevelopment of Surat Railway station on the Indian railway network.	Preparation of Inception Report and Quality Assurance Plan. Submission of Preliminary Report (PR), Traffic Planning Report (TPR), Topography Survey Report, Infrastructure Development Report (IDR), Land Redevelopment Report (LRR), and Geotechnical Investigations Report (GIR). Submission of Draft Concept Plan, Master Plan and Feasibility Report including of Financial Appraisal Report prepared after due consultation with Local Authorities & Railways and finalization of Concept and Master Plan from Railways
1. UltraTech Cement Limited Consultancy services to UltraTech Cement Limited for preparing Pre-	As a Railway Expert Provided expertise of the proposed site for preparation of Techno viability and Project Feasibility report. Developed the procedures

Feasibility Report, Detailed Project Report and Project Management Consultancy for development of proposed Railway sidings at Urali - Kannchan, Pune, Maharashtra under C.Rly	with respect to the railway operations and maintenance as well as railway operational costs. Estimates materials and/or equipment needed in order to ensure timely and cost effective completion of projects. Interprets blueprints, drawings and sketches. Expertise for variety of maintenance skills, Responds to emergency situations and safety concerns. Coordinates for tests and inspections of work, materials and equipment for the project at off-site facilities. Technical expertise for finalizing DPR and Project supervision
1. Maharashtra State Warehousing Corporation Technical Consultancy Services for Preparation of Feasibility study report and DPR (Detailed Project Report) to develop Railway siding for proposed warehouse complex comprising Silos, Warehouse, Cold Storages CFS etc. at Shirsuphal,	Provide Expertise for suggesting Techno viability of project and preparation of Feasibility report. Technical expertise for finalizing DPR and Project supervision. Estimates materials and/or equipment needed in order to ensure timely and cost effective completion of projects. Suggests manuals for variety of maintenance skills, Responds to emergency situations and safety concerns.
Consultant to develop proposed Railway siding at the following locations - 1) Maharashtra - Nagpur 2. 2) M.P. - a) Harda b) Guna c) Sehore d) Jabalpur e) Raisen f) Pipariya, Hoshangabad	• Site visit & Confirmation of final location for proposed siding. • Preparation of Feasibility Study Report Detailed Engineering & Geo-Technical Survey
Consultancy services for undertaking Feasibility study for proposed railway siding at Baramat, Pune	• Site visit & Confirmation of final location for proposed siding. • Preparation of Feasibility Study Report • Detailed Engineering & Geo-Technical Survey



Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes my qualifications, my experience and me.




Ketan Gokhale

Director

For a'XYKno Capital Services Ltd

Curriculum Vitae (CV) of Professional Personnel

1. Name of Personnel : Mr. Jayant Ukey
2. Date of Birth : 13th Dec. 1977
3. Nationality : Indian
4. Educational Qualifications :
- 5.

Sr. No.	Educational Qualification	University/College	Year
1.	M. Tech (Transportation Engineering)	Indian Institute of Technology Madras (I.I.T.M.), Chennai	2006
2.	B.E (Civil Engineering)	Yashwantrao Chavan College of engineering (YCCE), Nagpur University.	2002
3.	Diploma (Civil Engineering)	Government Polytechnic, Nagpur	1998

6. Employment Record :

Sr. No.	Employer	Position Held	Duration	Brief Description of Duties
1.	a'XYKno Capital Services Limited , Nagpur	Sr. Leader for Technical & Transport for Infrastructure Group	Jan. 2009 till date	Transportation, & Construction Expert in Infrastructure Consultancy Services
2.	IL&FS Infrastructure Development Corporation (IIDC) Limited, New Delhi	Assistant Manager- Technical & Transportation Engineer	August 2008- Dec. 2008	Transportation, Technical, & Infrastructure Consultant Services
3	L&T- Ramboll Consulting Engineers Limited, Chennai	Consulting Engineer- Traffic and Transportation	April 2007-July 2008	Transportation, & Technical, Consultant Services
4	Consulting Engineering Services Limited, Chennai	Assistant Engineer- Traffic and Transportation	June 2004 - March 2007	Transportation, & Technical, Consultant Services



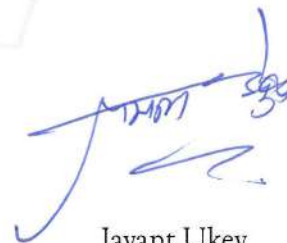
7. List of projects on which the Personnel has worked

Name of Project	Description of responsibilities
Maharashtra State Road Transport Corporation Limited (Maharashtra.) Modernization of Bus station across the state - Consultancy Services for Development of Modern Bus Terminal at Ratnagiri (Maharashtra.) -	- As Traffic Expert Assessment of present traffic flows and analysis of future impact on adjoining roads by the proposed development on site. - Site survey and analysis Interaction with clients and various stakeholders.
Consultant for Development of 226 Bus stations in Uttar Pradesh on Public Private Partnership Model at Lucknow, U.P.	- As Traffic Expert Assessment of present traffic flows and analysis of future impact on adjoining roads by the proposed development on site. - Site survey and analysis Interaction with clients and various stakeholders.
Uttarakhand Transport Corporation, Dehradun Transaction Advisor for Development of Bus Terminus at Fourteen Locations across Uttarakhand	- As Traffic Expert Assessment of present traffic flows and analysis of future impact on adjoining roads by the proposed development on site. - Site survey and analysis Interaction with clients and various stakeholders.
Transaction Advisors to Satara Municipal Council for selection of private developer for development of Office, Shopping Centre, Vegetable Market, Parking project in PPP mode. Including Preparation of Financial Feasibility Report, Financial Enclosure, and Preparation of RFQ & RFP for invitation of project wise proposal from private partners. Formulation of revenue and business models of the projects in PPP mode	Conducting the Feasibility study including desk review of existing data and Business Model for developing the aforesaid project, Carrying out the bid process management and providing complete transaction advisory support services, including the assistance in financial closure of the project.
Project Management Consultancy for establishing International ZOO at Gorewada	Conducting Technical Feasibility report including Site Investigation and Surveys, Contour, topography, soil test and any their investigation/surveys required for the project/work.
Technical Consultancy Services for Preparation of Feasibility study report and DPR (Detailed Project Report) to develop Railway siding for proposed warehouse complex comprising Silos, Warehouse, Cold Storages CFS etc. at Shirsuphal, Baramati.	- As Traffic Expert Assessment of present traffic flows and analysis of future impact on adjoining roads by the proposed development on site. - Site survey and analysis Interaction with clients and various stakeholders.

Nashik Municipal Corporation Preparation of Master Plan & Comprehensive Traffic Study for Nashik City. Maharashtra	• Assessment of present traffic flows and analysis of future impacts. • Site survey and analysis Interaction with clients and various stakeholders.
Nagpur Municipal Corporation Preparation of Master Plan/Perspective Plan for Transportaion System of Nagpur City for the Year 2031	• Assessment of present traffic flows and analysis of future impacts. • Site survey and analysis Interaction with clients and various stakeholders.

Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes my qualifications, my experience and me.

Jayant Ukey
 Asst. Vice President - Infra Group
 For a'XYKno Capital Services Ltd

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1.0 INTRODUCTION

1.1 Background and Introduction

1.1. M/s Kamaljeet Singh Ahluwalia (KJSA) mines is mining iron ore by open cast mechanized method from their mine at Nuagaon. The mineral after mining is transported by road to Railway Sidings like Jaroli, Banspani, Barbil, Bolani, Deojhar where it is loaded in Railway rakes for onward movement to various destinations. The road movement is done through NH-215.

1.2. M/s Kamaljeet Singh Ahluwalia (KJSA) had made an application to Ministry of Environment and Forests (MoEF) for according environmental clearance for enhancing iron ore production capacity to 5.62 million tons per annum from their mine at Nuagaon and again applied for 2 MTPA beneficiation plant.

1.3. MoEF while giving environmental clearance to the proposal had laid certain specific conditions. The ministry vide item V of the specific conditions laid down that - ***“Alternative transport system such as dedicated Railway siding for transportation of mineral from their mine shall be studied and put in place at the earliest but not later than five years.***

No mineral transportation by road shall be permitted beyond 5 years.” For 2 MTPA beneficiation plant, the Ministry vide **specific condition no. VIII** laid down that **“Mineral transportation after the 5th year shall be carried out only by rail”**.

1.4. Now, KJS Ahluwalia is in process of study the Alternative transport system such as dedicated Railway Siding for transportation of iron ore from their mine to nearby railway siding.

1.5. In view of this, KJS Ahluwalia, was appointed **M/s a'XYKno Infrastructure Pvt. Ltd.** through work order Ref. no. Stat/TCS/2012/N10M/14/1 dated 14/12/2012 to explore the pre feasibility of Alternative transport system such as dedicated Railway Siding, Conveyor Belt System or Road Transport for transportation of mineral from their mine to nearby existing railway siding.

1.6. Total Two nos. alternative alignments were proposed for the said Railway Siding and one alternative for Conveyor system to serve proposed Mineral Transportation from Nuagaon Mines to Jaroli rail siding and Bolani Khadan Rail Siding.

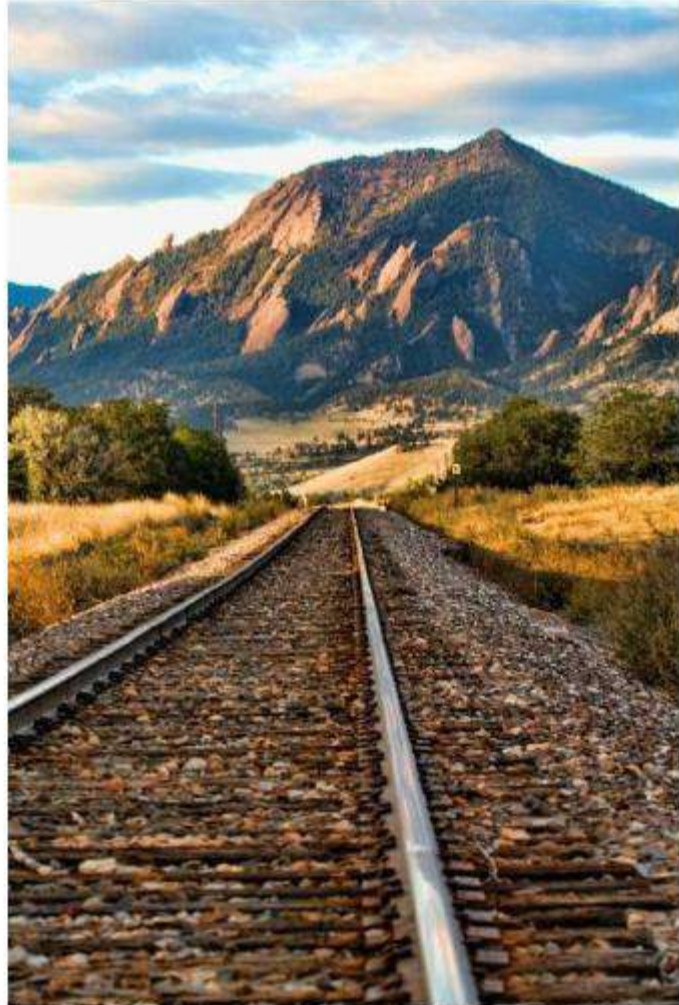
1.7. The said pre feasibility had been presented to 15th Meeting of the Reconstituted Expert Appraisal Committee for Environmental Appraisal of Mining Projects (Non-Coal) of the Ministry of Environment and Forests was held during 16th & 17th December, 2013.

1.8. The committee members who perused the study report had been made some observation and their valuable suggestion to revise the report as per the best practice. The Committee opined that to resubmit a thoroughly Refurbished Report after rectifying all the aforestated deficiencies, before the Committee can undertake any meaningful appraisal of the stated proposal.

1.9. In view of this, KJS Ahluwalia, appointed M/s a'XYKno Infrastructure Pvt. Ltd. through work order Ref. no. TCS/Nuagaon/2014-27 dated 23/01/2014 to explore the pre feasibility of Alternative transport system on such as dedicated Railway Siding, Conveyor Belt System or Road Transport for transportation of mineral from their mine to nearby existing railway siding based on the observations and comments by 'Reconstituted Expert Appraisal Committee for Environmental Appraisal of Mining Projects'

2.0 INTRODUCTION OF CONSULTANT

Tracks of Growth



a'XYKno is a
ISO-9000:2008
domain focused
company currently
advising and fast tracking
projects worth ₹ 100,000
crores (US\$ 17 Billion)
across the project life
cycle in sectors like
Railways, Transport, Ports,
Urban Development,
Infrastructure,
Natural Resources,
& Energy.

a'XYKno Infrastructure Pvt Ltd provides Consultancy & Turnkey solutions in the fields of railway planning, operations, economics, management and strategy. Our services cover both operational and demand planning, and work is carried out for a range of clients, both in India and overseas.

Rail Infra & Logistics Group

Nagpur | New Delhi | Mumbai | Pune | Jabalpur | Thiruvananthapuram

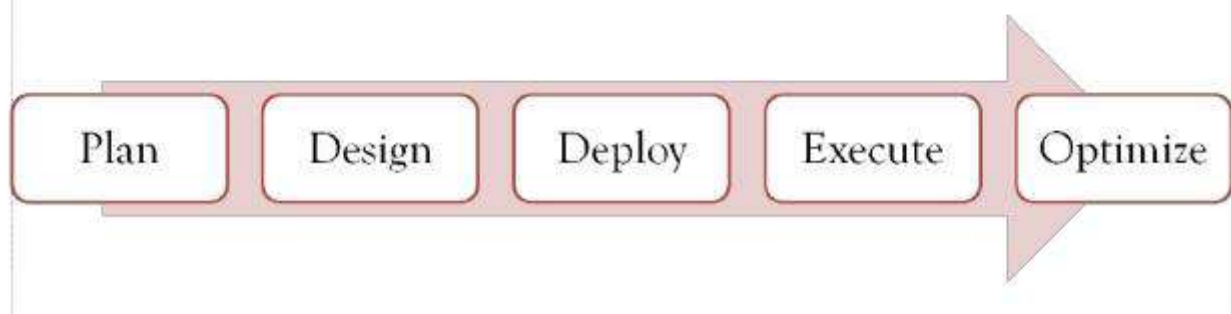
Commitment of Long Lasting Business Relationship

We cater to all the needs of a railway infrastructure project, specializing in fast-tracking the entire project life cycle with latest technological standards and innovative methods for successful execution of the project. Our team possesses technical skills, professional experience and management acumen to accomplish each project. We are involved in activities across the major fields of commercial and operational planning for railways, including metro, suburban, inter-city passenger, and freight.



Our key differentiator is the cross-functional team of technical, financial, legal and sector experts which enables us to take our clients to the next level. Our services broadly include:

- Feasibility and Concept Studies
- Detailed Project Reports
- Design and Detailed Engineering of Civil, Electrical, Mechanical and Signaling Systems
- Station / Terminal Designing
- Designing, Renovating and Extending Railway infrastructure
- Telecommunication and Signaling Network Planning
- Capacity and Design studies for Rolling Stock and Locomotives requirements
- Operation and Maintenance
- Operation and Maintenance of existing railway infrastructure



Feasibility & Concept Studies

- Reconnaissance survey cum analysis of traffic for planning Rail infrastructure facilities
- Rail logistic study for ports
- Identification of location for setting up of rail linked ICD/ Warehouses
- Traffic study of fuel transportation for Merry-Go-Round systems
- Obtaining in-principal approval from Railways
- Optimization of existing Rail Infrastructure Facilities
- Line capacity study on the existing rail network for handling the additional traffic



Detailed Project Report & Detailed Engineering

- Conducting final location survey & fixing and pegging the alignment on the ground as per Indian Railway code
- Preparation of engineering scale plans of station yard plans, In-plant yard plans and longitudinal section
- Geological survey of soil and rock mechanics including hydrological studies for bridges / tunnels
- Preparation of Detailed signaling design & specification for Signaling power supplies, control tables, mechanical relay based interlocking, level crossing, bonding plans and cable plans
- Preparation of Detailed Over Head Electrification Plans, Design of overhead equipment, sub stations, switching stations
- Preparation of Project Estimation & Costing



Project Management Consultancy

- Project Planning and Scheduling
- Contracting Services including Bid Documents etc.
- Tendering and appointing Contractors
- Construction Management, Quality Assurance and Monitoring
- Measurement & Certification of Documents
- Commissioning the Rail Facilities for operation
- Turn-key Solutions



Partners in Development

With our strategic alliance with the companies of repute, we provide comprehensive end-to-end rail infrastructure advisory services to our clients. We undertake construction management of railway projects and are registered with the various infrastructure development authorities. We believe in delivering quality services to all our clients and make sure that we lay rail roads for them, which are actually platforms for them to benefit them and their core business interests.

Our strengths are based on the foundation of:

- In-depth knowledge and understanding of local markets
- Commitment to quality
- Client oriented approach
- Long term commitment to our clientele
- Building close work relationships with them at all levels



We have successfully been able to put together a highly educated, experienced, and efficient team that has an integrated and dynamic approach to clients. They assist the client from the time a project starts till it completes. They engineer, manage, and monitor the project.

a'XYKno Infrastructure Pvt Ltd
a'XYKno Capital Service Ltd
a'XYKno Energy Pvt Ltd
a'XYKno Green-Earth Pvt Ltd
a'XYKno Futuretech Pvt Ltd

Offices:

Nagpur

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a'XYKno Financial Centre
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Kachiyana Road
Gole Bazar , Jabalpur
MadhyaPradesh- 482002

Pune

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Pune University Road,
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Pune, Maharashtra
India—411 016

Thiruvananthapuram

5D, Skyline Palace Court,
Kowdiar,
Thiruvananthapuram, Kerala

Rail Infra& Transport Group

Our Services:

- Feasibility & Concept Studies
- DPR & Detailed Engineering
- Project Management
- Turnkey Solutions
- Operation & Maintenance

Touch Point:

Jayant Ukey
Sr. Leader
+91- 9766698554
Email: jayant@axykno.com



Infrastructure Experts

- Retd. IRSE, Rail Transport
- I.I.Tians in Transportation Engg.
- Civil Engineers
- Master of Planners
- MBA's
- Architect's



Lt. Col. R.K. Singh,
IRSE, Retd. Chief
Engineer, Rail
Transport.

Civil Engineer with more than 30 years of experience in Indian Railways in various capacities as in-charge of Railway Surveys, Railway construction, Railway track modernization and maintenance, Railway bridges construction land maintenance and land management etc.



Dr. K. Gokhale,
IRTS,
Ex. Managing
Director,
Konkan Railway.

More than 33 years of experience in management planning of rail transportation & ex-Managing Director with Konkan Railways, City Corporation Ltd, Pune, Advisor to Vice Chancellor of Pune University.



Jayant S. Ukey
M. Tech.
(Transport
Planning)
I.I.T. Madras.

Expertise in Traffic & Transportation Engineering, More than 8 years experience exclusive in Road and Railway Transportation Engg., Development of PPP Projects specially in Urban Infra and Transport Infrastructure.



Nivesh Modi
M. Arch.
CEPT,
Ahmadabad

As an Architect he has exposure in Urban Planning Projects and SEZ on PPP basis for last 4 years He is expert in Architectural designing and drawing



Ms. Heena Vora
M. Arch.
CEPT,
Ahmadabad

As an Architect she is expert in Housing Planning, Urban Planning Projects, Architectural designing and drawing.

Key Professional Team – Infrastructure



Infrastructure Experts	
■ Retd. IRSE, Rail Transport	
■ I.I.Tians in Transportation Engg.	
■ Civil Engineers	
■ Master of Planners	
■ MB A's	
■ Architect's	



**Hasnain Haider
M. Tech.
NICMAR, Pune**

With good exposure in infrastructure management. He has more than 4 years of experience and is keenly involved in undertaking consulting assignments in the Infrastructure space



**Ms. Shewta
Sakhare
M. Tech.
VNIT, Nagpur**

As an Architect she is expert in Urban Planning Projects, Architectural designing and drawing.



**Nikhil Kshirsagar,
MBA**

An Engineer with Masters in Management Sciences from K. J. Somaliya College



**Parag Somwanshi,
MBA**

An MBA finance with more than 4 years of experience in infrastructure projects.



**Hetal Sampat
Sr. Leader**

A fellow member of The Institute of Chartered Accountants of India. Hetal has exposure in Infra Practices and Legal Consultancy for more than 6 years. She was previously with Price Waterhouse Coopers.



**Nishikant Sao
Sr. Leader**

More than 6 years of experience in undertaking Legal aspects in Infrastructure Projects and JV activities in companies like WNS Global Services, Adv. S.G. Aney & Associates Legal Firm

Legal Experts	
■ Infrastructure focused Lawyers	
■ Regulatory Experts	

दक्षिण पूर्व मध्य रेलवे
प्रधान मुख्य अभियंता का कार्यालय
बिलासपुर . 495004 ,छ.ग.द्व



South East Central Railway
Office of the Principal Chief Engineer
Bilaspur – 495004 (C.G.)

Rly: 64218, P&T: 417792, Fax: 64267(Rly.), 414042 (P&T)

No: Engg/G-2/Apvd. Cons/AXYKNO/ 04

Date: 13.08.2013

To,

M/s a'XYKno Infrastructure Pvt. Ltd,
Level-3, Leela Vista WHC Road,
Bajajnagar, Nagpur-440010.

Sub: Registration for works relating to survey and construction management services of Railway Siding on S.E.C. Railway.

Ref:-(I) Your letter No.AXY/Infra/ RA IL/2012-13, dated:-23.04.2012.

(ii) This office letter No. Engg/G-2/Apvd. Cons/a'xykno/35 dated 08-05-2012.

With reference to your letter cited above, the approval of the competent authority for registration of your firm as consultant to undertake the works pertaining to survey and construction management of private siding within the geographical jurisdiction of South East Central Railway is hereby communicated. The registration has been approved by this railway for the period w.e.f. 19.07.2013 to 18.07.2016, is based on Scrutiny by the committee of 3 SAG officers who has been constituted for the purpose. The currency of the registration is likely to remain valid up to 18.07.2016, subject to following condition

1. The above approval is subject to the conditions stipulated by Railway Board in their letter No. 83/W-1/SP/12/Pt. dated: 22.03.1993, 07.06.1994, 05.08.1994, followed by letter No. 96/CE-1/SP/12, dated 23.02.1999 and further to the condition that your performance remains satisfactory; failing which the same shall be cancelled at any time.
2. A review of the approved list would be done based on performance and participation in the tenders invited by various parties/agencies who intend to conduct survey and construction of private siding. The name of the firm will automatically be struck off from the approved list, if you do not tender for any work up to 18.07.2016.
3. Annual performance report of the firm should be intimated to this office every year.
4. Every change in the constitution of your firm as furnished in your application form, such as change in association, partners, technical employees, engineers etc. should be intimated to this office.
5. One of the Managing Director/ Executives of the consultants (M/s a'XYKno Infrastructure Pvt. Ltd Bajajnagar, Nagpur-440010) should be a retired IRSE officer of rank not lower than Senior Administrative Grade. It is to be ensured that such an officer is on full time employment for the full duration of the work for which consultant is being appointed.
6. The proof/details of works carried out by and participation of your firm in such works should be submitted to this office from time to time.
7. In case of renewal beyond 18.07.2016 is required, firm should apply **three months in advance**, of expiry of registration along with the detail of works executed if any over this Railway and on any other Railway during the period of registration, and annual fee @ Rs. 10,000/- per year.
8. Please acknowledge the receipt of this letter.

(M.R.S.Chowdary)

Deputy Chief Engineer (G).

Copy to: CTPM/SECR/BSP for information and necessary action please.

BY Speed Post

W.C.R.



पश्चिम मध्य रेल
WEST CENTRAL RAILWAY

General Manager's Office
Engineering Branch
Jabalpur- 4820068

No. W-HQ/WG/Apvd-List/Consultant/a'XYKno Infrastructure/

Date: - 25/09/2013

**M/s. a'XYKno Infrastructure Pvt.Ltd.
Level -3, Leela Vista Bajaj Nagar Square WHC Road,
NAGPUR.(M.S.) 440010.**

Dear Sir,

**Sub:- Registration in approved list of Consultant for Survey and Construction/Construction
Management of private siding on West Central Railway.**
Ref:- Your office letter No. AXY/INF/RAIL-JABALPUR/2012-13/2157 Dt.19/04/2012

With reference to your above cited application, you have been registered and enlisted on the approved list of consultant for undertaking consultancy relating to survey and construction of private siding on West Central Railway.

This registration entitles you to submit your offer for consultancy for survey and construction of private siding for which the parties may approach you or invite tenders under the jurisdiction of West Central Railway.

It shall be noted that this registration will be valid up to 24.09.2013 to 18.07.2016, and a review of this registration would be done yearly based on your performance and participation in the tenders invited by the various parties/agencies who intend to conduct the survey and construction of private siding. Your name will be automatically struck off from the approved list if you do not tender for any work during the financial year. The registration is subject to the condition that your performance remains satisfactory.

Every change in constitution of the firm furnished with the application form such as change in partners, technical employees, engineers etc. should be intimated to this office without delay.

Wherever a work of survey and construction of private siding is under taken on the strength of this registration, it may please be ensured that the Director/Executive of your firm, who has been stated to be retired IRSE officer of rank not lower than SA grade in your application, is available on full time employment for full duration of the work.

Every year in the month of ^{April} you shall have to submit with proof the details of works carried out by you and participation of your firm in such works.

You have to apply three months in advance before expiry of registration of registration for fresh registration of consultancy, if you so desire, along with the list of works executed along with details during the validity.

All information may be e-mailed ALSO to cegen@wcr.railnet.gov.in.

Kindly acknowledge the receipt of this letter.

Thanking you,

Yours faithfully

(K. A. Qureshi)

For Chief Engineer (General)
WCR/IBP

25/9/2013

27 Sep 13 20:15



Projects :- Ongoing/ Completed

Consultancy services to Ultra Tech Cement Limited for preparing Pre-Feasibility Report, Detailed Project Report and Project Management Consultancy for development of proposed Railway sidings at Urali – Kannchan, Pune, Maharashtra under Centralk Railway

Client: Ultra Tech Cement Ltd., Mumbai



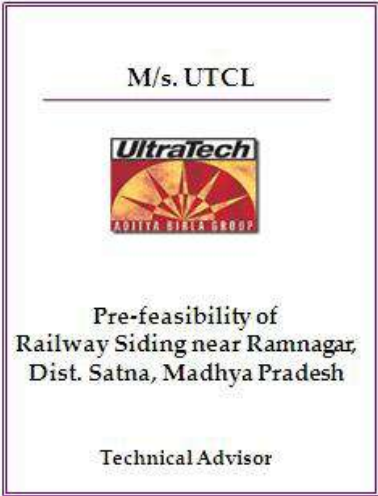
Consultancy services to Ultra Tech Cement Limited for preparing Pre-Feasibility Report, Detailed Project Report and Project Management Consultancy for development of proposed Railway sidings Consultancy for Railway sidings at Moudha , Nagpur, Maharashtra Under S.E.C. Railway.

Client: Ultra Tech Cement Ltd., Mumbai



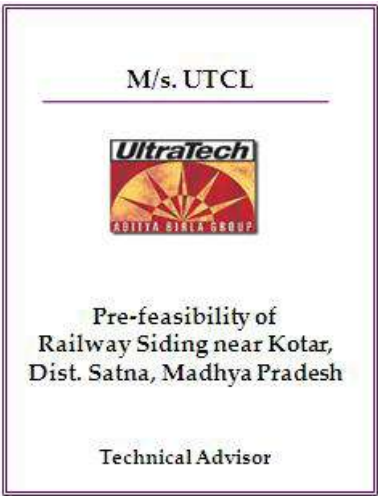
Railway Consultancy services for Pre-Feasibility studies and obtaining In-Principle approval and RTC for Railway siding Near Ramnagar in Dist. Satna (MP).

Client: Ultra Tech Cement Ltd., Mumbai



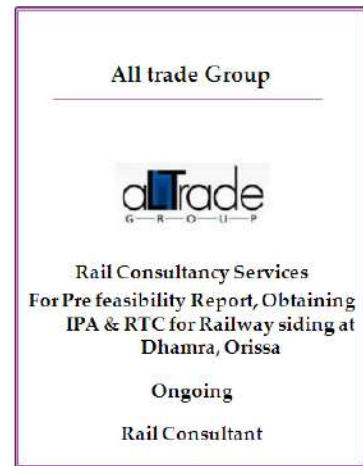
Railway Consultancy services for Pre-Feasibility studies and obtaining In-Principle approval and RTC for Railway siding near Kotar in Dist. Satna (MP).

Client: Ultra Tech Cement Ltd., Mumbai



Railway Consultancy services for Pre-Feasibility studies and obtaining In-Principle approval and RTC for Railway siding Take off from Bansara station Under Khurda Road Division of East Coast Railway.

Client:- M/s. Altrade Iron and Power Limited , Orissa



Consultancy Services to Ultra Tech Cement Limited for preparing Pre-Feasibility Report for these sites to ensure that locations are suitable to carry out efficient / smooth railway operations post development of siding for Railway sidings at Odha (Nr. Nasik) under Center Railway.

Client: Ultra Tech Cement Ltd., Mumbai



Survey and certification of Railway land boundaries from km (-) 575m (khanapur station) to Km110.4 (Gulbarga station) in Bidar-Gulbarga new BG line project in the state of Karnataka

Client:- South Central Railway,
Secunderabad, AP



Technical Consultant for preparation of feasibility study and DPR to develop Railway Siding at Shirsuphale, Baramati in the state of Maharashtra



Client:- Maharashtra State Warehouse
Corporation

Preparation of Feasibility Report on Introduction of Rail Based Mass Rapid Transit System (MRTS) for Siliguri town.

Client:- Siliguri Jalpaiguri Development Authority, West Bengal



Providing consultancy services to assess commercial viability of developing Tiruvalla station in TVC Division under PPP mode- Study and submission of report along with the master plan

Client:- Southern Railway, Ernakulam



3.0 SITE VISIT

3.1. Site visit in Nuagaon Iron Ore Mines of Keonjhar Dist., Orissa was conducted on **03rd & 4th February, 2014**. The investigative team comprised of Mr. Ketan Gokhale, IRTS, Ex. Managing Director, Konkan Railway & Mr. Jayant Ukey, Sr. Leader- Infra who represented a'XYKno Infrastructure Pvt. Ltd, Mr. S. Mallikarjun, Project Head and Mr. Dhananjay Sutar (DGM, Survey and Planning) represented M/s. KJS Ahluwalia.

3.2. **M/s a'XYKno Infrastructure Pvt. Ltd.** has done the site survey of the entire area of the mining lease as well as possible connectivity to Bolani And Juruli stations of SE railway which are the nearest railway stations and prepared this pre-feasibility study to explore the Alternative transport system for transportation of mineral from M/s Kamaljeet Singh Ahluwalia (KJSA) Nuagaon iron mine.

3.3. Location and Accessibility

* The lease area is situated in the village of Nuagaon, Guali, Topadihi, Barpada and Katasahi in the Tehsil Barbil, District- Keonjhar of Orissa state.

* The area is covered in the Survey of India topo sheet no. 73 G/5

* Lease area is bounded by the

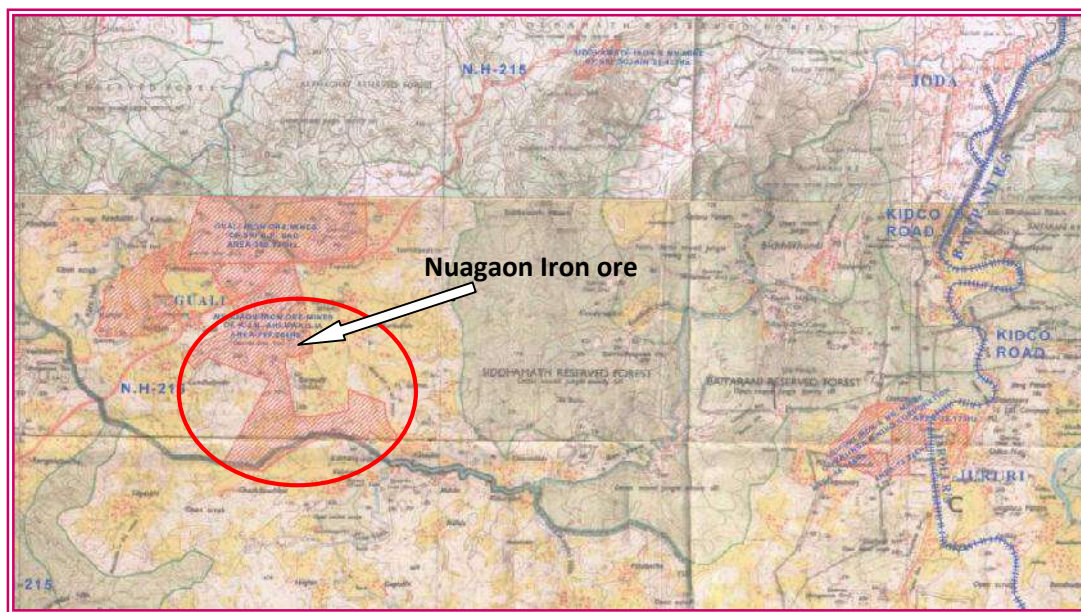
a. Latitudes $21^{\circ} 57' 26''$ to $21^{\circ} 59' 37''$ N

b. Longitudes $85^{\circ} 16' 18''$ to $85^{\circ} 19' 48''$ E.

4.0 NUAGAON IRON ORE MINES

4.1. History:

The Nuagaon Iron Ore mining lease area under reference is located in villages Nuagaon, Guali, Topadihi, Barpada and Katasahi in Keonjhar district of Orissa State. The mining lease was originally granted to and executed in favour of M/s Karam Chand Thapar and Brothers (P) Ltd for iron and manganese ore for 20 years from 04.03.1959 to 03.03.1979, mining of manganese ore was omitted by the Lessee and was confirmed by the Government vide Letter No. 6062/MG/21.06.63. This lease was transferred in favour of M/s Hindustan General Electrical Corporation on 1967 with approval of State Govt Vide proceeding no. 8164/MG dated 29.12.66 and the same was renewed for a period of another 20 years in his favour with effect from 04.03.1979. By virtue of an order of the Kolkata High Court in company petition no. 570 of 1983 with reference to the company application no. 274 of 1981, the said lease stood transferred and vested in M/s Karam Chand Thapar and Brothers (P) Ltd, another company within the meaning of company Act, 1956.



The mining lease was transferred in the name of Sri Kamal Jeet Singh Ahulwalia, Barbil through transfer deed dated 18.12.84 in the middle of first renewal period of Mining Lease. By additional explorations and drilling, the resources estimated initially at 67

million tonnes in 2001, further increased to 97.93 million tonnes of mineable reserves.

The lessee has obtained Environmental clearance from MoEF, Govt. of India, vide letter no. J-11015/1156/2007-IA.II(M) dated 2nd February 2010 for 5.62 MTPA iron ore production and Environmental clearance from MoEF, Govt. of India, vide letter no. J-11015/317/2009-IA.II (M) dated 16.2. 2012 for 2.0 MTPA beneficiation plant.

Extent of the mining lease is 767.284 hec. Out of the M.L area of 767.284 hec, 525.762 hectare falls under reserved forest, 124.584 Ha is agricultural land, 85.98 Ha is grazing land,

9.62 Ha is surface water bodies/roads, 5.95 Ha for site services, 58.1 Ha for green belt and safety zone, 9 ha for sub grade stacking and 277.59 ha is others.

4.2. Existing Transportation Network nearby Nuagaon Mines:

4.2.1. Road Network:

Presently 2 lane with paved shoulder National Highway-215 running adjacent to Nuagaon mines for transportation of minerals to the railway siding, which is being constructing as a 4 lane divided road by National Highway Authority of India (NHAI). The construction work is going on full swing and may be another one and half years it may commissioned for traffic movement as a 4 lane divided road. Total length of road is 269 KMs. The road stretch starting from Panikoili to Rajamunda via Rimuli. This road passing through populated town like Keonjhar, 'Joda'.

PLATE-I

LOCATION MAP
OF NUAGAON IRON MINES

Of Sri Kamaljeet Singh Ahluwalia

SCALE → 1:50000

Ref. Toposheet No 73G/5, 73G/1
73F/8 & 73F/4

M.I. area 1895.00acs or 767.284 has

INDEX

M.I. boundary line

R.F. P.F. line

Highway, road, railway

River nala

Village town

Telephone, powerline

State boundary

District boundary

Contour line

Highest contour

Lowest contour

5 km zone of m.l. area

Latitude → 27° 51' 26" to 27° 54' 33"

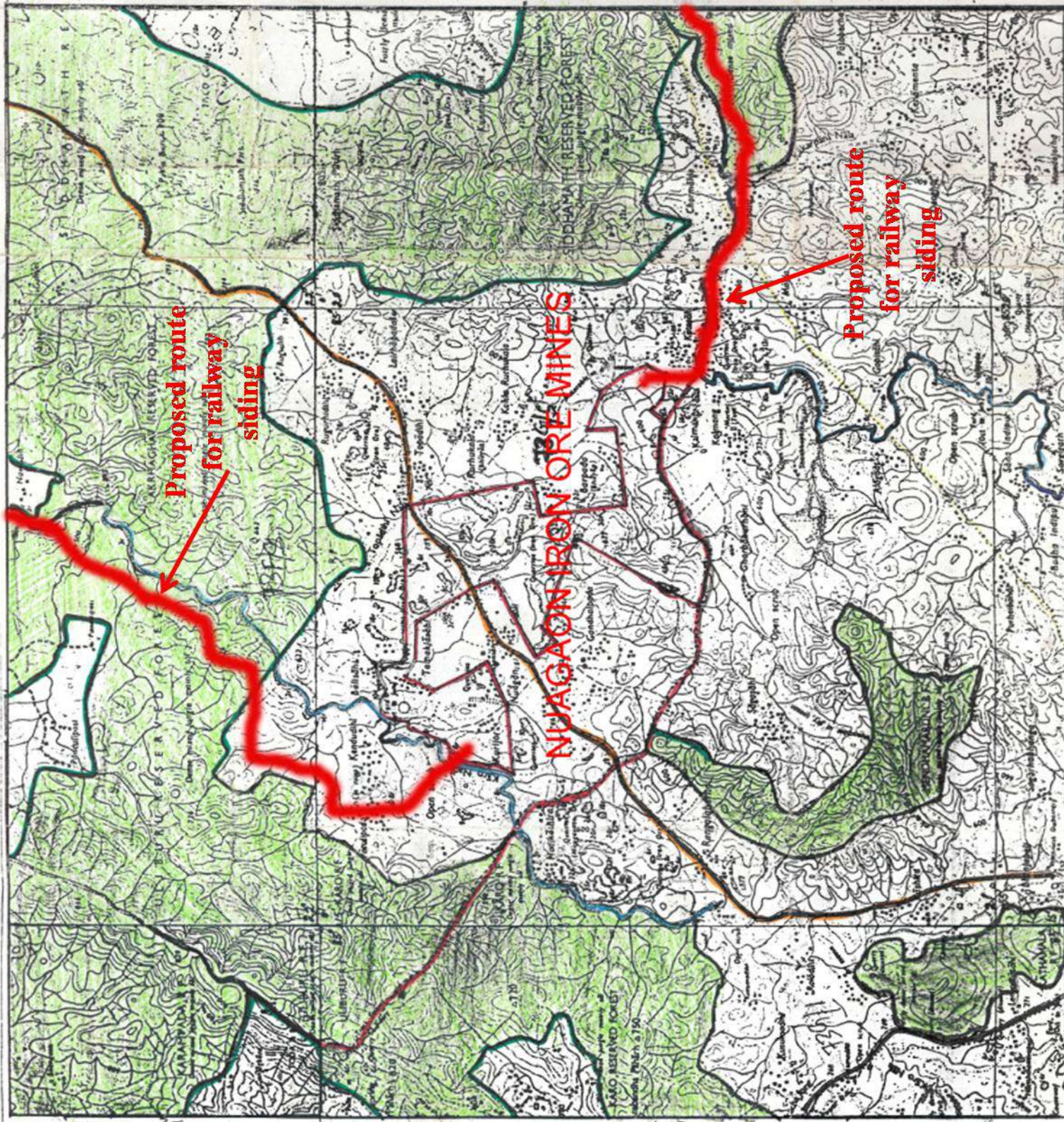
Longitude → 83° 46' 18" to 83° 48' 44"

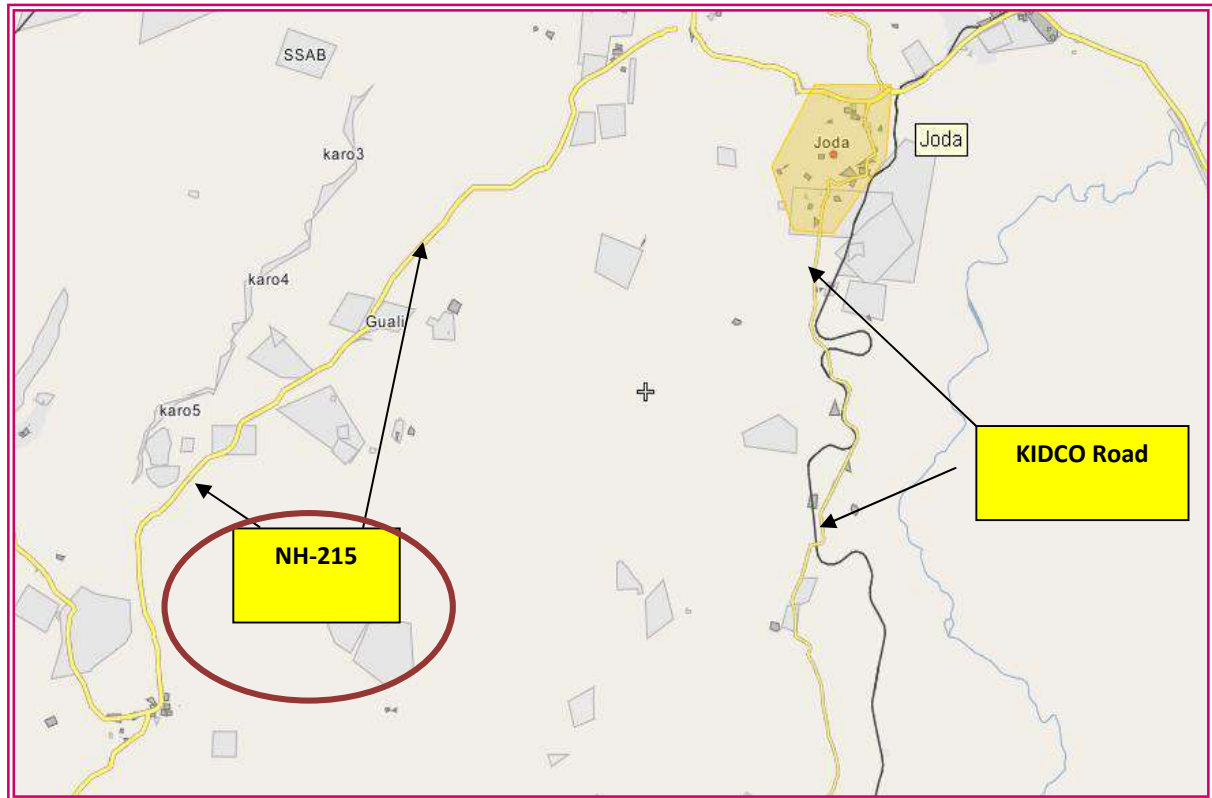
Deputy Director Mines
Jodhpur Distt. Keonjhar

LESSEE

Divisional Office
Kendrapada DivisionProposed route
for railway
siding

NUAGAON IRON ORE MINES

Proposed route
for railway
siding



Road Network of Nuagaon Mines

4.2.2. Railway Network:

As mentioned above the transportation of minerals from mines to respective ports, steel plant or other state is being done through nearby railway sidings at Jaroli, Banspani, Nayagarh, Barbil, Bolani & Deojhar, which are present in the 20 to 30 KM vicinity.

Approximate distance from Nuagaon mines to '*Jaroli Railway station*' through NH-215 and KIDCO road is about **35 Kms**. '*Bolani Khadan Railway station*' is on the West side of mines. It is a terminal station primarily used for loading of iron ore by SAIL.

For this pre feasibility study the consultant has done pre feasibility survey to explore possibility of dedicated railway sidings taking off from "*Jaroli Railway Station*" and "*Bolani Khadan Railway station*" to Nuagaon Iron ore mines, as only these two railway stations are nearest to this mine.

5.0 PRESENT MECHANISM TO TRANSPORT IRON ORE

5.1. Presently, the transportation of Iron ore from Nuagaon Mines to existing public railway siding like Jaroli, Banspani, Nayagarh, Barbil, Bolani & Deojhar in the vicinity of 20 to 30 Kms

5.2. The lessee has obtained Environmental clearance from Ministry of Environment and Forest (MoEF), Govt. of India, vide letter no. J-11015/1156/2007-IA.II(M) dated 2nd February 2010 for 5.62 MTPA iron ore production. MoEF while giving environmental clearance to the proposal had laid certain specific conditions. The ministry vide item V of the specific conditions laid down that - ***“Alternative transport system such as dedicated Railway siding for transportation of mineral from their mine shall be studied and put in place at the earliest but not later than five years. No mineral transportation by road shall be permitted beyond 5 years.”*** At the same time the lessee has obtained Environmental clearance from Ministry of Environment and Forest (MoEF), Govt. of India, vide letter no. J-11015/317/2009-IA.II (M) dated 16th February 2012 for 2 MTPA beneficiation plant. The ministry vides Item no VIII of the specific condition laid down that ***“Mineral transportation after the 5th year shall be carried out only by rail”***.

5.3. Apparently the restriction imposed by MOEF that no mineral transportation shall be permitted by road beyond 5 yrs could be due to following factor.

❖ * Heavy truck traffic movement and huge quantities of transport of mineral by road will clog the roads and block the normal traffic on the road. NH-215 being a two lane road will not be able to take huge anticipated traffic

5.4. The ground situation has since undergone drastic changes as under:

❖ In the year 2008-09 as much as over 75 million tones of mineral was mined and transported from this area. At present the mining actively has shrunk to under 40 million tons a year. The quantity being transported by road has thus drastically reduced. This is also borne out by traffic census conducted then and now. The equivalent traffic units in Passenger Car Unit (PCUs) which has now come down drastically as per traffic

census conducted on NH-215 through CRRI, Govt. of India.

❖ It is understood that NH-215 which was at the time of clearance accorded by MoEF, a 2 lane road, has been sanctioned for upgrading to 4 lane road. It is also understood that the work of four laning has already commenced.

5.5. In view of what is stated in para 5.4 above, there may not be as much a problem in Road transport of mineral as was anticipated at the time of clearance by MoEF.

6.0 ALTERNATIVE MODES

Notwithstanding what is stated in para 5.4 and 5.5 above in chapter no.5, in pursuance of the directive issued by MoEF the company has initiated this prefeasibility study for a dedicated Rail Siding as well as for a conveyer system as alternative mode of transport. The study results are given in chapter 6 & 7

6.1. RAIL SIDING

Existing Railway System - There are two Railway stations nearest to Nuagaon Mines.

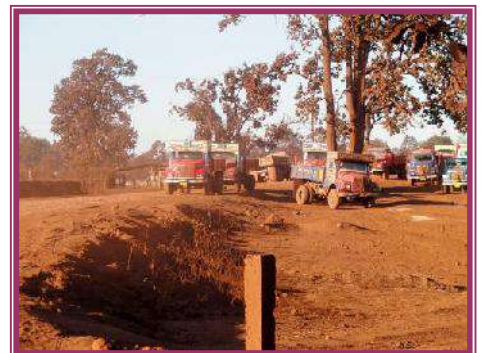
- a) Jaroli Railway station is on link from to Barbil of Chakradharpur division of South Eastern Railway towards East of the mines.
- b) Bolani Railway station is a terminal station on Barbil-Bolani section of Chakradharpur division of South Eastern Railway towards North of mines.

Proposed Railway sidings - A survey of the intervening land between the mine boundaries and these two railway stations was done to explore possibility of connecting mines area to Jaroli station on the East side and to Bolani station on the North. The results are as under

6.1.1. Alternative - 1 - Nuagaon Mines to Jaroli Railway Station

The Proposed siding has been shown as Alt - 1 on the annexed plan. The siding can start from the boundary of this mine to enter Jaroli station from South End. Features of proposed Alt - 1 are...

- i) The rail siding from mines area to existing Jaroli Railway station will be approximately 16 km long. The intervening terrain is hilly and has number of nalhas & rivulets criss crossing it. There is dense reserved forest of about 6 km length which cannot be avoided.



Starting point from
Nuagaon Mines to Jaroli

ii) Besides this the alignment passes through the number of private mining leases belonging to;

- Rungata Lease
- Tata Lease , TISCO Village
- Orissa Mining Corporation (OMC) Lease
- Shree Metallic Lease
- Deepak Steel and Power Lease
- SMC Power Generation Corporation Lease
- Kallinga Mining Corporation (KMC) Lease



iii) Taking permission from so many lease holders to lay the Railway track on their valuable mining area is a difficult and time consuming matter.



iv) In order to avoid existing habitats en route this alignment will have to cross Sona River at nos. of places. This river is an all weather river. There are cross two mountains' en route where tunneling would be required

Sona River crosses on various points of

v) Due to hilly and undulating terrain there will be deep cuts of up to 18 m and high banks of up to 20m for maintaining appropriate gradient of this siding for movement of loaded iron ore rakes without bankers. This will involve requirement of up to average 60m width of land for banks and up to 30 m width for cuttings. In addition about 4 m strip will also be required for service road for maintenance of the siding.

Thus total land width required will be 64 m & 34 m respectively for banks and cuttings. Hence the forest land required in 6 km stretch can be approximately worked out as 30 hectares. Presently Odisha state Govt. has given a huge amount of forest land of total 326.1ha (174.1595 ha from Rimuli to Rajamunda + 151.94 ha from panikoili to Rimuli) for expansion of NH-215 to 4 lane.

vi) Construction of siding will very adversely affect the habitation in the area during construction as well as after construction as there are number of villages like Malda as well as workers colonies such as that by Tata Steel en route.



Malda Village

vii) In addition to deep cuts and high banks there could be tunnels on the alignment of up to 4 km overall length.

viii) It is also seen that there is hardly any space except valuable mine area in which the loading yard consisting of minimum 4 lines has been constructed.

Similarly at Jaroli station in addition to a goods shed, three sidings are taking off from both sides of this station so space for adding a separate entry is not feasible.

The existing sidings at Jaroli are;

- Kallinga Mining Corporation (KMC) Proposed Railway Siding
- Essel and Rungata Existing Railway Siding on East Side
- TMPL (Construction is completed, Operation yet to start)



Juruli Railway Station



Mountain's on rout



Required Major Bridges to construct



TISCO Village (Tata Lease) on the rout



KMC Lease on the rout



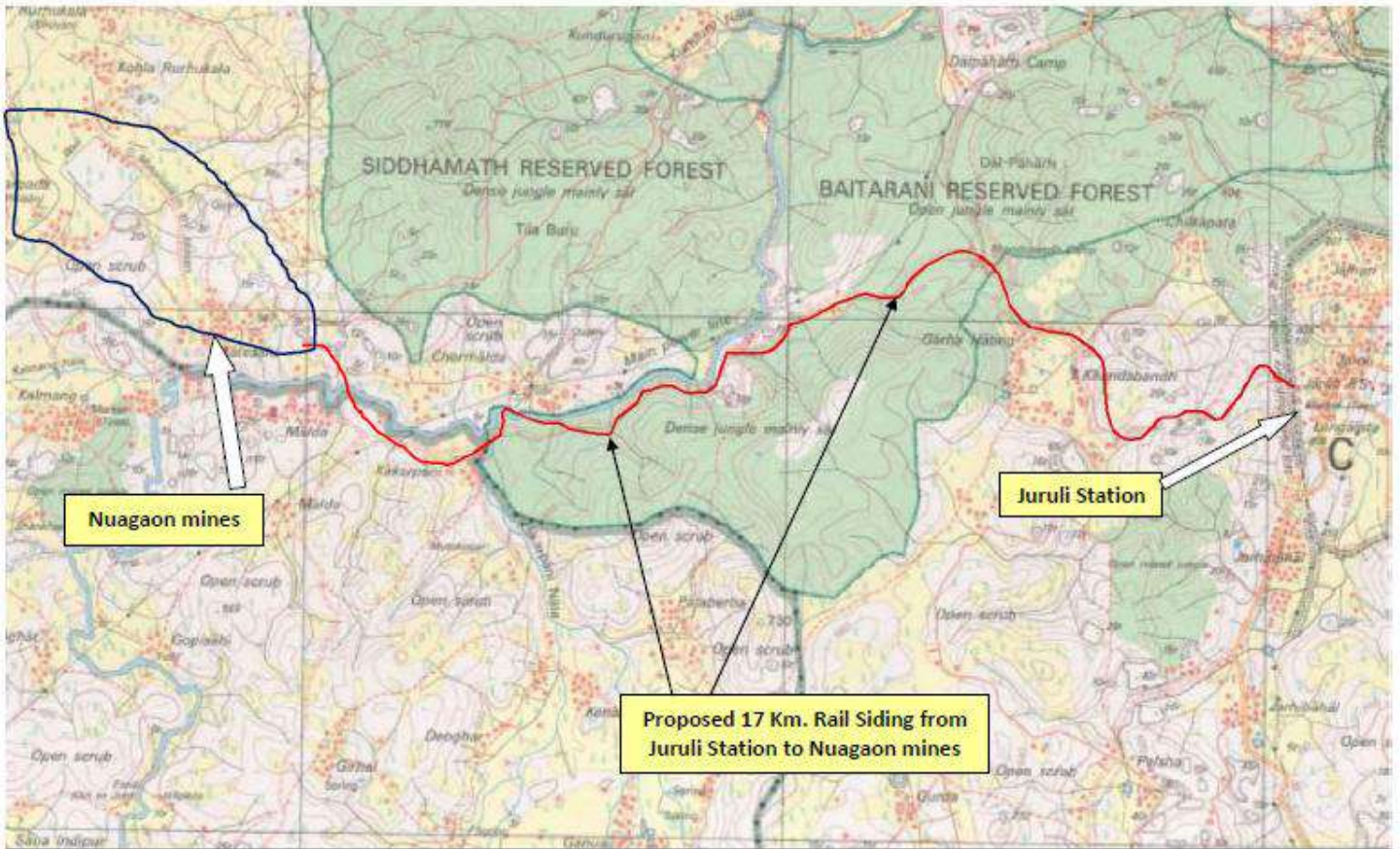
Dense Sal Tree Forest on the route



Major Embankment required near Juruli Station

In view of what is stated in above paras the cost of this siding of about 17 kms. will be Rs. about 850 Crores (The prevailing railways estimate for constructing such line in such area is Rs. 45 to 60 Crores ,but since the tunnels will not be too many an avg. cost of Rs. 50 crores is taken for purpose of initial estimate) in addition to all the impediments mentioned here before.

**TOPO MAP SHOWING THE PROPOSED ROUTE FOR RAILWAY SIDING FROM NUAGAON MINES
TO JAURULI STATION**



6.1.2. Alternative - 2 - Nuagaon Mines to Bolani Khadan station

The proposed Rail siding to Bolani siding has been shown as Alt. - 2 on the annexed plan. Proposed siding starts from West side of mines area and then goes towards North running almost parallel to Karo river and connects at a suitable location between Bolani Khadan and Barbil station

Salient features on proposed alignment are...

i) The length of proposed siding from mines area to Bolani station will be about 16 km.

ii) This siding; if it takes off from Nuagaon Mines; it has to cross the NH 215 highway. Since level crossings are not permitted on such highways a ROB will have to be built. Therefore, this siding will have to be located on other side of NH 215 i.e. taking off from Guali Mines area which is also under control of M/s. KJS. A suitable conveyor system to carry iron ore from Nuagaon to Guali going over the NH215 will also have to be built to avoid loaded trucks crossing the highway.



Starting point of alignment to Bolani

iii) This alignment has two possibilities

A. Alt A will avoid the existing mine leases en route but will go through ULIBURU and KARO Reserved forest for about 14 kms. This is a dense forest and will require clearance from forest dept.

B. Alt B will reduce this length to about 7 kms but it will go through private leases of R P Sao, K C Pradhan ,Arjun Ladha & SAIL.



Uliburu Reserved Forest on rout



**Reserved Forest before Harmati
(NMDC Colony) on rout**

iv) Further at Bolani station there is already a spur of SAIL at Barbil End which will prevent connectivity from Barbil side to Bolani as this approach is on a curve. Hence a mid section siding may have to be planned between Barbil and Bolani for which again SER will have to approached.

v) Due to undulating terrain there will be deep cuts and high banks on the alignment. On an average about 40 m strip of land will be required for the siding. Total forest land required in 7 km stretch can be approximately worked out at 28 Hectares. In this case also surrender of such huge chunk of forest land will be required. Here also large number of sal trees will have to be felled.

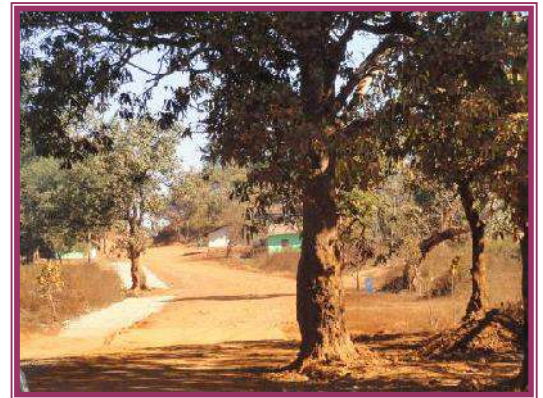


Mountain on rout

vi) Construction of siding will adversely affect the habitation in the area during and after construction.

vii) One small tunnel of about half km will be required.

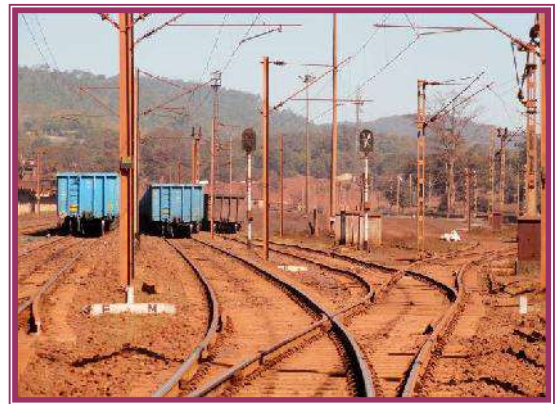
viii) The ruling gradient on the siding can be managed to acceptable levels of 0.66%.



State Road to Cross at a Point



SAIL Siding at Barbill end of Bolani

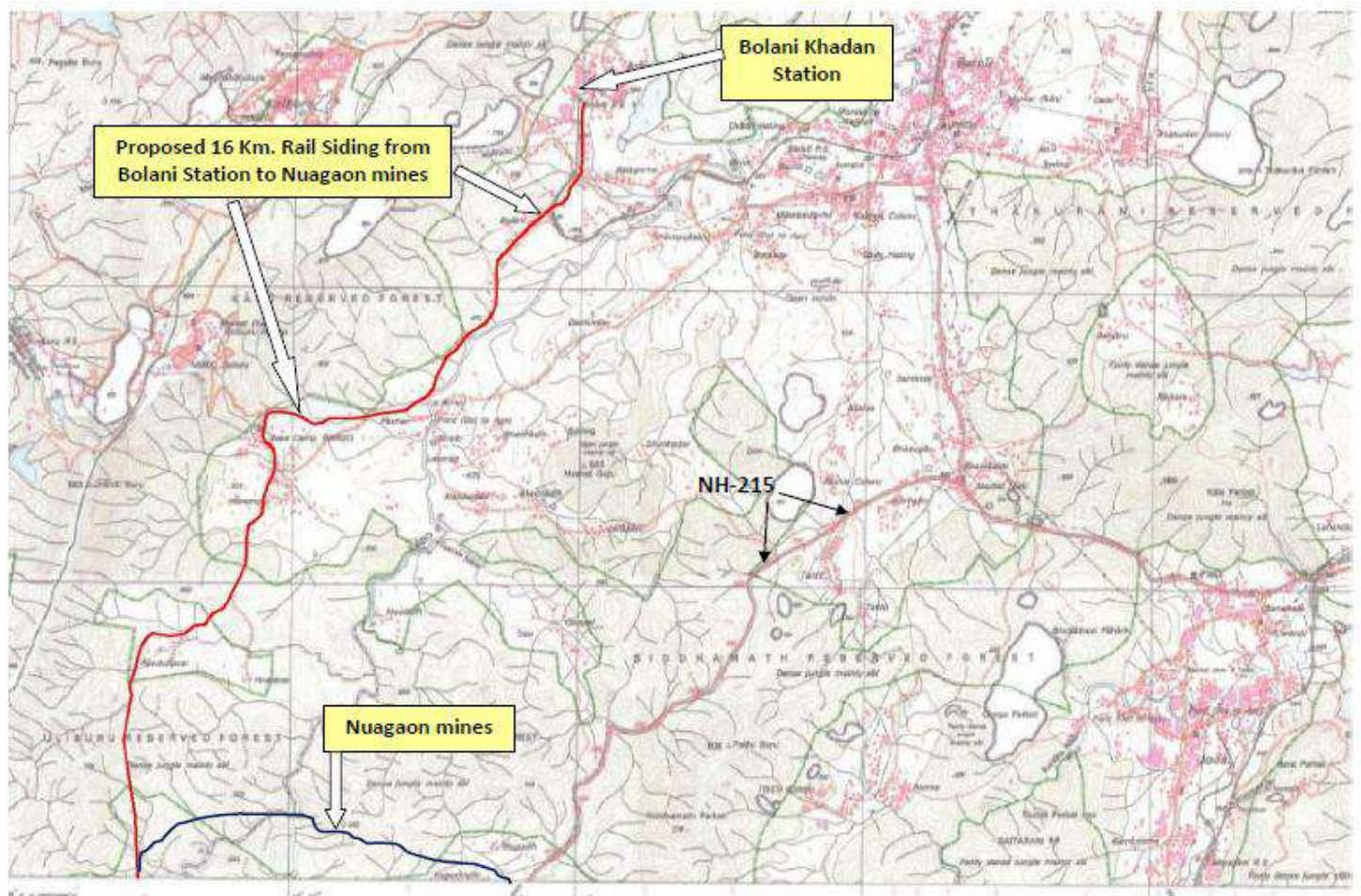


View of Bolani Yard

While the siding is technically feasible yet a mid section take off, involving a new crossing station between Barbil and Bolani will be necessary for which SE railway authorities will have to be approached. Taking the avg. cost of Rs 50 crores per km .the siding cost will be about Rs.800 crores.

Besides the above South Eastern Railway (SER) deny to “construct private railway siding from Nuagaon Iron Ore Mines either to Bolani Station or Jaroli station & in between also” vide its letter no. AS/60/34Pt-XI on dated 25.02.2014. Attached as Annexure-1

**TOPO MAP SHOWING THE PROPOSED ROUTE FOR RAILWAY SIDING FROM NUAGAON MINES
TO JAURULI STATION**



6.2. CONVEYER SYSTEM:

6.2.1. Material for Transportation:

The Iron Ore (sized iron ore and beneficiated iron product in solid filter cake form;

Particularly output from filter / belt press) in the size of 0 to 10 mm, 10 to 30 mm and 30 to 80 mm

6.2.2. Design of Conveyor

Considering quantity projection about 4 to 6 million Ton per annum, per hour transportation of minerals comes to about 1150 tone for which belt conveyor size has to be selected. Maximum speed of the conveyor is 5meters per second where wear and tear is minimal. Transport Towers (TT) are to be decided as per site condition and similarly supporting structure between transports towers will be designed as per load bearing. Covered belt conveyor with canopy will be recommended in view of environment aspects.

6.2.3. The salient features of Proposed Conveyor belt are as follows...

S. No.	Design Parameter	Description
1	Tonnage per hour	About 1000 to 1200 tons / hour
2	Speed Constraint	Approx. 4000 ton/ 4 hour
3	Moisture Content in Iron ore	Wet Season: more than 10%
	Dry Season: 6% to 7%	
4	Nos. of Material Loading point	One
5	Nos. of Material dispatch point	One (Bolani Rail Siding)
6	Size of Iron ore to be convey	30/40 mm to 80 mm
7	Type of power available for conveyor system	By Electric supply
8	Conveyer System and canopy	Belt conveyer with sides covering

9 Transfer Towers (TT)
decided as per site condition

Location and Numbers will be

6.2.4 Nuagaon Mines to Jaroli Rail Station Yard

i) The proposed conveyor system from mines area to existing Jaroli Railway station yard will be approximately 16 km long. The terrain is hilly and highly undulating and about 7 km length will be in forest area.

ii) About 4 m strip will be required for service road for maintenance of conveyor system.

Thus total land width required will be 3 m & 4 m respectively for Conveyor System and service road here also about 5 Hectares of prime forest land will be required. In addition very large number of sal trees will have to be felled.

iii) Open belt conveyer capable of moving 16000 t per day will be required.

v) Bucket change points may be required every 2km. Each bucket change point will cause dust pollution in surrounding areas which is not desirable.

vi) The alignment of 16 km conveyor system will be passing through number of other private mining leases. This is a rather difficult and time consuming exercise to get approval from these private lease holders.

Besides the above Jaroli station, SER deny to storing/stacking of iron ore in the premises under the jurisdiction of Jaroli Railway siding on dated 09.04.2014. Attached as Annexure-2

7 CONCLUSION

In view of what is stated in above alternative modes of transportation of iron ore through Proposed Railway Siding, By Roads (NH-215) and Conveyor Belt System. Following are the conclusion of each alternative proposed system.

7.1. Rail System:

- Construction of siding will very adversely affect the habitation in the area during construction as well as after construction.
- It is also seen that there is hardly any space except valuable mine area in which loading yard consisting of minimum 4 lines can be constructed.
- Similarly there is hardly any space near existing Jaroli and Bolani stations where additional lines and a suitable connectivity can be laid.
- *On going through the web site of S.E. railway the consultants noticed a notification recently (Jan 2014) issued by them listing the sections in which only SER will permit new iron ore sidings in future. (A copy of notification enclosed) Since both Bolani and Jaroli are not figuring in it a reference was made to Chief Traffic Planning manager of SER by the consultants. SER has expressed their inability to provide any new siding taking off in these two areas. Hence possibility of a conveyer system has also been explored.*

7.2. Conveyor Belt System:

- About 5 Hectares of prime forest land will be required. Surrender of such huge chunk of forest land for conveyor system may not be desirable.
- Bucket change points may be required every 2km. Each bucket change point will cause dust pollution in surrounding areas which is not desirable.
- The alignment of 16 km conveyor system would have been passing from numbers of other private mining lease, which is very difficult and time consuming exercise to get approval from these private institutes.
- Similarly there is hardly any space near existing Jaroli siding where additional land available for staking of conveyed Iron Ore from Nuagaon mines.

7.3. By Road (NH-215):

- The quantity being transported by road has thus drastically reduced.
- The equivalent traffic units in Passenger Car Unit (PCUs) 2008-09 has come down as per traffic census conducted on NH-215 during February 2014 through CRR, Govt. of India
- Presently 2 lanes with paved shoulder National Highway-215 is being converted to a 4 lane road by National Highway Authority of India (NHAI).

It may be appreciated that alternative mode of transport may not be more environmentally friendly than continuation of transport by road, more so when the quantity to be transported has drastically reduced and NH-215 is being upgraded to four lanes.

Annexure-1

27/02 2014 12:21

#2518 P.001

BY FAX

(FAX No.-0712 2236999/ 2245338)



दक्षिण पूर्व रेलवे
South Eastern Railway
Office of the
Chief Operations Manager
11, Garden Reach Road,
Kolkata- 700043.

संख्या /No.: AS/60/ 34 Pt.- XI

दिनांक / Dated : 25.02.2014.

सेवा में

Sri. Jayanta S. Ukey,
Sr. Leader- Infrastructure,
M/s. a'XYKno Infrastructure Pvt. Limited,
A'XYKno Financial Centre, Level-3,
Leela Vista, Balaji Nagar Square, WHC Road,
Nagpur, Maharashtra- 440010.

Dear Sir,

विषय/Sub :- Request for a private siding from Nuagaon Iron ore
Mines either to Bolani Station or Juruli Station in
CKP division.

संदर्भ/Ref:- Your letter No.- AXY/SER/2013-14/6376 dated
17/02/2014.

Please refer to your above quoted letter. As per paper notification dated 29.01.2014 5 (five) station of South Eastern Railway i.e. Patasahi, Champajharan, Lathikata, Manoharpur & Jaraikela has been identified for construction of Iron Ore loading siding on private land.

As such your request for construction of Iron ore loading siding between Bolani and Barbil station or Juruli station cannot be accepted.

Thanking you,

Yours Faithfully,

(S.K. Banerjee)

वरिष्ठ परिचालन प्रबंधक (परियोजना)
Sr. Transportation Manager (Proj)
for Chief Traffic Planning Manager

Annexure-2

SE railway

To
The General Manager,
Nuagaon Iron Ore Mines,
KJS Ahluwalia.

Station Manager,
Jaroli Railway Station

**Sub: Request for Storing/Stacking of Iron Ore near Jaroli Railway Siding(Public)
transported through conveyor from Nuagaon Iron Ore mines**

REF: Your letter no-NIOM-KJS/SER/2014/488 of dtd.02nd Mar'14

Dear Sir,

In reference to your above letter, I am to inform that as per Rate Circular No.21 of 2007 issued by Railway Board storing/stacking of minerals is not allowed inside the premises under the jurisdiction of Jaroli Railway Siding.

As such your request for storing/stacking of I/Ore within Jaroli Railway Siding cannot be entertained and is returned herewith.

Thanking You.
Sincerely Yours.

[Signature]
02/04/14
स्टेशन प्रबंधक
Station Manager
द० पू० रेलवे, जरोली
S. E. Rly, Jaroli

दक्षिण पूर्व मध्य रेलवे
प्रधान मुख्य अभियंता का कार्यालय
बिलासपुर . 495004 ,छ.ग.द्व



South East Central Railway
Office of the Principal Chief Engineer
Bilaspur – 495004 (C.G.)

Rly: 64218, P&T: 417792, Fax: 64267(Rly.), 414042 (P&T)

No: Engg/G-2/Apvd. Cons/AXYKNO/ *OK*

Date: 13.08.2013

To,

Annexure-3B

M/s a'XYKno Infrastructure Pvt. Ltd,
Level-3, Leela Vista WHC Road,
Bajajnagar, Nagpur-440010.

Sub: Registration for works relating to survey and construction management services of Railway Siding on S.E.C. Railway.

Ref:-(I) Your letter No.AXY/Infra/ RA IL/2012-13, dated:-23.04.2012.

(ii) This office letter No. Engg/G-2/Apvd. Cons/a'xykno/35 dated 08-05-2012.

With reference to your letter cited above, the approval of the competent authority for registration of your firm as consultant to undertake the works pertaining to survey and construction management of private siding within the geographical jurisdiction of South East Central Railway is hereby communicated. The registration has been approved by this railway for the period w.e.f. 19.07.2013 to 18.07.2016, is based on Scrutiny by the committee of 3 SAG officers who has been constituted for the purpose. The currency of the registration is likely to remain valid up to 18.07.2016, subject to following condition

1. The above approval is subject to the conditions stipulated by Railway Board in their letter No. 83/W-1/SP/12/Pt. dated: 22.03.1993, 07.06.1994, 05.08.1994, followed by letter No. 96/CE-1/SP/12, dated 23.02.1999 and further to the condition that your performance remains satisfactory; failing which the same shall be cancelled at any time.
2. A review of the approved list would be done based on performance and participation in the tenders invited by various parties/agencies who intend to conduct survey and construction of private siding. The name of the firm will automatically be struck off from the approved list, if you do not tender for any work up to 18.07.2016.
3. Annual performance report of the firm should be intimated to this office every year.
4. Every change in the constitution of your firm as furnished in your application form, such as change in association, partners, technical employees, engineers etc. should be intimated to this office.
5. One of the Managing Director/ Executives of the consultants (M/s a'XYKno Infrastructure Pvt. Ltd Bajajnagar, Nagpur-440010) should be a retired IRSE officer of rank not lower than Senior Administrative Grade. It is to be ensured that such an officer is on full time employment for the full duration of the work for which consultant is being appointed.
6. The proof/details of works carried out by and participation of your firm in such works should be submitted to this office from time to time.
7. In case of renewal beyond 18.07.2016 is required, firm should apply **three months in advance**, of expiry of registration along with the detail of works executed if any over this Railway and on any other Railway during the period of registration, and annual fee @ Rs. 10,000/- per year.
8. Please acknowledge the receipt of this letter.

M.R.S. Chowdary
13/8/13

Deputy Chief Engineer (G).

Copy to: CTPM/SECR/BSP for information and necessary action please.

BY Speed Post

W.C.R.



पश्चिम मध्य रेल
WEST CENTRAL RAILWAY

General Manager's Office
Engineering Branch
Jabalpur- 4820068

No. W-HQ/WG/Apvd-List/Consultant/a'XYKno Infrastructure/

Date: - 25/09/2013

**M/s. a'XYKno Infrastructure Pvt.Ltd.
Level -3, Leela Vista Bajaj Nagar Square WHC Road,
NAGPUR.(M.S.) 440010.**

Dear Sir,

**Sub:- Registration in approved list of Consultant for Survey and Construction/Construction
Management of private siding on West Central Railway.**
Ref:- Your office letter No. AXY/INF/RAIL-JABALPUR/2012-13/2157 Dt.19/04/2012

With reference to your above cited application, you have been registered and enlisted on the approved list of consultant for undertaking consultancy relating to survey and construction of private siding on West Central Railway.

This registration entitles you to submit your offer for consultancy for survey and construction of private siding for which the parties may approach you or invite tenders under the jurisdiction of West Central Railway.

It shall be noted that this registration will be valid up to 24.09.2013 to 18.07.2016, and a review of this registration would be done yearly based on your performance and participation in the tenders invited by the various parties/agencies who intend to conduct the survey and construction of private siding. Your name will be automatically struck off from the approved list if you do not tender for any work during the financial year. The registration is subject to the condition that your performance remains satisfactory.

Every change in constitution of the firm furnished with the application form such as change in partners, technical employees, engineers etc. should be intimated to this office without delay.

Wherever a work of survey and construction of private siding is under taken on the strength of this registration, it may please be ensured that the Director/Executive of your firm, who has been stated to be retired IRSE officer of rank not lower than SA grade in your application, is available on full time employment for full duration of the work.

Every year in the month of ^{April} you shall have to submit with proof the details of works carried out by you and participation of your firm in such works.

You have to apply three months in advance before expiry of registration of registration for fresh registration of consultancy, if you so desire, along with the list of works executed along with details during the validity.

All information may be e-mailed ALSO to cegen@wcr.railnet.gov.in.

Kindly acknowledge the receipt of this letter.

Thanking you,

Yours faithfully

(K. A. Qureshi)

For Chief Engineer (General)
WCR/IBP

25/9/2013

27 Sep 13 20:15

Annexure-4

BY FAX

(FAX No.-0712 2236999/ 2245338)



दक्षिण पूर्व रेलवे
South Eastern Railway
Office of the
Chief Operations Manager
11, Garden Reach Road,
Kolkata- 700043.

संख्या /No.: AS/60/ 34 Pt.- XI

दिनांक / Dated : 25.02.2014.

सेवा में

Sri. Jayanta S. Ukey,
Sr. Leader- Infrastructure,
M/s. a'XYKno Infrastructure Pvt. Limited,
A'XYKno Financial Centre, Level-3,
Leela Vista, Balaji Nagar Square, WHC Road,
Nagpur, Maharashtra- 440010.

Dear Sir,

विषय/Sub :- Request for a private siding from Nuagaon Iron ore
Mines either to Bolani Station or Juruli Station in
CKP division.
संदर्भ/Ref:- Your letter No.- AXY/SER/2013-14/6376 dated
17/02/2014.

Please refer to your above quoted letter. As per paper notification dated 29.01.2014 5 (five) station of South Easter Railway i.e. Patasahi, Champajharan, Lathikata, Manoharpur & Jaraikela has been identified for construction of Iron Ore loading siding on private land.

As such your request for construction of Iron ore loading siding between Bolani and Barbil station or Juruli station cannot be accepted.

Thanking you,

Yours Faithfully,

(S.K. Banerjee)

वरिष्ठ परिचालन प्रबंधक (परियोजना)
Sr. Transportation Manager (Proj)
for Chief Traffic Planning Manager

SE railway

To
The General Manager,
Nuagaon Iron Ore Mines,
KJS Ahluwalia.

Station Manager,
Jaroli Railway Station

Sub: Request for Storing/Stacking of Iron Ore near Jaroli Railway Siding(Public)
transported through conveyor from Nuagaon Iron Ore mines

REF: Your letter no-NIOM-KJS/SER/2014/488 of dtd.02nd Mar'14

Dear Sir,

In reference to your above letter, I am to inform that as per Rate Circular No.21 of 2007 issued by Railway Board storing/stacking of minerals is not allowed inside the premises under the jurisdiction of Jaroli Railway Siding.

As such your request for storing/stacking of I/Ore within Jaroli Railway Siding cannot be entertained and is returned herewith.

Thanking You.
Sincerely Yours.


02/4/14
स्टेशन प्रबंधक
Station Manager
द० पू० रेलवे, जरोली
S. E. Rly, Jarolli

Government of Odisha
Department of Steel and Mines

No. 3845 / S&M, Bhubaneswar, dated 18/4 April, 2015
III(A)SM - 16/2006

From

Sri P.K. Mishra,
Special Secretary to Govt.
Email : pradipmishra.oas@gmail.com

To

Sri Kamaljit Singh Ahluwalia
P.B. No. - 3, In front of MMTC Weigh Bridge,
At/Po - Barbil, Dist. - Keonjhar

Sub: Extension of validity period of mining lease for Iron Ore over an area of 767.284
hects. in village Nuagaon of Keonjhar district in favour of K.J.S. Ahluwalia u/s 8A
of the MMDR Amendment Act, 2015.

Sir,

I am directed to say that a mining lease for Iron Ore in village Nuagaon of Sundargarh district was granted and executed in favour of M/s Karamchand Thapar & Brothers (P) Ltd. for 20 years from 04.03.1959 to 03.03.1979. Subsequently the lease was transferred to M/s Hindustan General Electrical Corporation vide Govt. proceedings No. 8164/MG dated 29.12.1966. The 1st RML was granted and executed for 20 years from 04.03.1979 to 03.03.1999 in favour of M/s Hindustan General Electrical Corporation. Thereafter the mining lease was transferred to K. J. S. Ahluwalia vide Govt. order No. 11541 dated 01.12.1984. The applicant, K. J. S. Ahluwalia filed application for 2nd RML for Iron Ore over an area of 767.284 hects. on 02.03.1998 before one year prior to expiry of the 1st RML period.

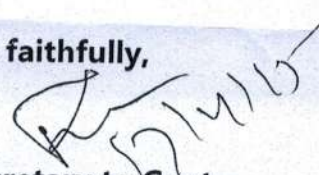
1. The Government have been pleased to decide to extend the validity period of above mining lease u/s 8A⁽⁶⁾ of the M&M(D&R) Act, 1957 as amended by the MMDR Amendment Act, 2015 from 04.03.1999 to 31st March, 2020.
2. The extension of validity period of lease is subject to following condition:
 - (i) The lessee will furnish an undertaking that he will make the payment of the demand raised or to be raised u/s 21(5) of the MMDR Act in accordance with the directions of Hon'ble Supreme Court of India (applicable for Iron & Manganese Ore only) / competent forum within 60 days of such disposal or such other time

as may be decided by the competent forum, before executing the supplementary lease deed. This undertaking will also form part of the supplementary mining lease deed as a special condition.

- (ii) The extension of validity is without prejudice to ongoing proceedings, if any, for lapsing or determination of lease which have been initiated or may be initiated in accordance to the provisions of M&M(D&R) Act, 1957 or rules framed there under.
- (iii) The extension of validity is without prejudice to any action under the provisions of the Environment (Protection) Act, Odisha Forest Act or any other law for the time being in force in respect of any violations committed by the lessee during the original period of lease or the period of deemed extension till the date of extension of validity period of lease.
- (iv) The extension of validity period of lease is subject to the result / outcome of the case WP(C) No. 114/2014 (Common cause vrs Union of India and others) pending in Hon'ble Supreme Court of India, where the Shah Commission Report and CEC report are under active consideration (applicable for Iron & Manganese Ore only).
- (v) The extension is subject to condition that any terms and conditions of the original lease, if not complied so far, shall be complied by the lessee within such period as may be specified by a competent authority and the lessee shall furnish an undertaking to such effect.
- (vi) The lease is subject to condition that the lessee shall not enter upon any forest of any category to which the provisions of the Forest (Conservation) Act, 1980 are applicable without previous sanction of the competent authority nor fell, cut and use any timber or trees without obtaining the sanction of that authority nor otherwise than in accordance with such conditions as the State Government may prescribe.
- (vii) The lessee / lessees shall not undertake mining operation except under and in accordance to the approvals under the Forest (Conservation) Act, 1980 and the Environment (Protection) Act, 1986 and rules framed thereunder.
- (viii) The lessee will execute a supplementary lease deed for the extended period and the above conditions and undertakings will form part of such deed.

3. You are directed to execute the supplementary lease deed accordingly within a maximum period of three months from the date of issue of this letter, after obtaining the requisite Forest Clearance as may be applicable.
4. You are also hereby informed that the mining operation in the lease should not be commenced before executing the supplementary lease deed and obtaining all statutory clearances and permission as required under law or in pursuance of orders of a competent Court, as may be applicable.

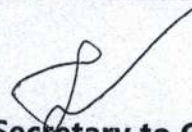
Yours faithfully,


Special Secretary to Govt.
Email / FAX

Memo No. 3346/SM, dated

18.4.2015

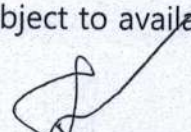
Copy forwarded to Director of Mines, Odisha, Bhubaneswar / Deputy Director of Mines, Joda for information and necessary action.


Special Secretary to Govt.
Email / FAX

Memo No. 3347/SM, dated

18.4.2015

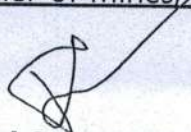
Copy forwarded to Collector, Keonjhar for information and necessary action. He is authorized to execute the supplementary lease deed with the lessee subject to availability of the requisite Forest Clearance.


Special Secretary to Govt.
Email / FAX

Memo No. 3348/SM, dated

18.4.2015

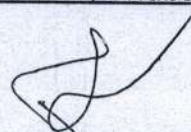
Copy forwarded to Special Secretary to Govt., F&E Department / Member Secretary, State Pollution Control Board, Odisha, Bhubaneswar / Regional Controller of Mines, IBM for information and necessary action.


Special Secretary to Govt.
Email / FAX

Memo No. 3349/SM, dated

18.4.2015

Copy forwarded to Principal Chief Conservator of Forest (PCCF), Odisha, Bhubaneswar / DFO, Keonjhar for information and necessary action.


Special Secretary to Govt.

**MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(IMPACT ASSESSMENT DIVISION)
NON-COAL MINING SECTOR)**

SUMMARY RECORD OF 34th MEETING OF THE RECONSTITUTED COMMITTEE OF THE EXPERT APPRAISAL COMMITTEE FOR ENVIRONMENTAL APPRAISAL OF MINING PROJECTS CONSTITUTED UNDER EIA NOTIFICATION, 2006.

The 34th Meeting of the Reconstituted Expert Appraisal Committee for Environmental Appraisal of Mining Projects (Non-Coal) of the Ministry of Environment, Forest and Climate Change was held during **May 27-29, 2015**. The list of participants is annexed.

After welcoming the Committee Members, discussion on each of the Agenda Items was taken up ad-seriatim.

Item No. 1:

(1). Circulation of the Minutes of the 33rd EAC Meeting

The Minutes of the 33rd Meeting of EAC held on **May 15, 2015** were circulated.

Item No. (1.1):

The Committee discussed on the issues about the number of proposals to be appraised in the EAC meeting and noted that the Ministry has placed more number of projects which are difficult to appraise. **The Committee after detailed deliberation decided that Member Secretary may prepare the Agenda in such a manner that there shall not be more than 10 EC Proposals in a day to appraise the EC Proposal adequately.**

Also they have observed that the papers relating to the projects are being submitted by the project proponents in the last minute and it becomes difficult to scrutinize the proposals. It was informed that if the information on the project is received late they will defer the proposal and will not scrutinize.

Day 1: 27th May, 2015 (Wednesday)

Item No. 2:

Consideration of Environmental Clearance Proposals

**(2.1). Quartz and Feldspar Mine of M/s Shri Pradeep Goyal, located at Village-Paner, Tehsil-Kishangarh, District-Ajmer, Rajasthan (188.01125ha)-
Consideration of EC**

The Committee **deferred** the proposal as the PP has not attended the meeting.

Based on discussion held and presentation made the EAC decided to **deferred** the proposal and sought the following information/clarifications for further decision on the matter:-

- (i) A clarification shall be submitted that whether this is a violation case or not.
- (ii) The duly filled in questionnaire with all the points shall be submitted.
- (iii) A certificate from State Government that no PA falls within 10 km radius of the mine lease area.

(2.72). Boria Tibbu Iron Ore mine of M/s Godawari Power and Ispat Ltd. at Village Boria tibbu, tehsil: Mohala, District Rajnandgaon, Chhattisgarh (7.05 lakhs TPA; 110ha)- Amendment in Environmental Clearance.

The proposal no. IA/CG/MIN/26356/1900 is for Boria Tibbu Iron Ore mine of M/s Godawari Power and Ispat Ltd. at Village Boria tibbu, tehsil: Mohala, District Rajnandgaon, Chhattisgarh for addition of Iron Ore Crusher of 7.05 TPA capacity. The Latitude and Longitude of the mine site 110 ha area is 20° 26' 10" to 20° 26' 40" N and 80° 55' 20" to 80° 56' 8" E, Toposheet No. 64D/15.

The environmental clearance was issued to the project vide letter no. J-11015/208/2006-IA.II(M) dated 31st January, 2007 for 7.05 lakh MTPA. The PP vide proposal no. IA/CG/MIN/26356/1900 dated 06.01.2015 and letter No. GPIL/Env/14-15/01 dated 03.03.2015 requested for following amendments:

Amendment in EC is proposed to install iron ore crusher of 2 no. x 150 TPH capacity in an area of 6400 sq. meter with screening facilities.

The proposal was considered in the EAC meeting and committee was of the view that the proposal shall be **brought back** to the Committee on submission of following details by the PP:

- i. The revised form-I shall be submitted.
- ii. A report on environmental implications of installation of the crushing and screening unit.
- iii. A certification from the IBM that iron ore crusher of 2 no. x 150 TPH capacities in an area of 6400 sq. meter with screening facilities was part of the mine plan earlier approved by IBM.
- iv. A certified compliance report of the EC no. J-11015/208/2006-IA.II(M) dated 31st January, 2007 from the Regional Office, Nagpur.

Additional agenda item:

(2.73) Nuagaon Iron Ore Mines, M/s KJS Ahluwalia, located at village(s) Nuagaon, Guali, Topadihi, Barpada and Katasahi, Tehsil Barbil, Keonjhar District, Odisha over an area of 767.284 Ha- EC Amendment.

The Nuagaon Iron Mine of M/s KJS Ahluwalia (767.284 Ha) is located in village(s) Nuagaon, Guali, Topadihi, Barpada and Katasahi, tehsil Barbil, Keonjhar District, Odisha. The mine is being worked for a rated capacity of 5.62 Million Tonnes Per annum (MTPA). Out of the total area of 767.284 ha, 525.762 ha is forest area and the remaining 241.522 ha is non-forest area. Forest clearance was obtained under FC Act 1980 for 371.192 ha vide letter no: 8-17/2001-FC, dated 22.04.2004. Forest clearance for the entire forest area including the safety zone has already been applied for. Present Lease period is valid till 03.12.2019.

Environment clearance for 5.62 MTPA iron ore production was issued by MOEF vide letter no. J-11015/1156/2007-IA.II (M) dated 2.2.2010. The Environmental clearance stipulates a specific condition (item V) *"Alternative transport system such as dedicated Railway siding for transportation of mineral from their mine shall be studied and put in place at the earliest but not later than five years. No mineral transportation by road shall be permitted beyond 5 years"*.

Thus the proposal is for amendment of EC condition item V. The proposal was considered in the EAC meeting held during December 2013 and the Committee noted that the PP had not taken any compliance action on this EC stipulation during the last three years, nor had they informed the Ministry about their intent not to fulfil the same. The present appraisal is therefore without any prejudice to the binding nature of the item V.

The Agenda item before the Committee relates to withdrawal of the aforesaid special condition V in the EC. It was requested by the PP that in view of widening and expanding of the NH-215 in the vicinity, as also development Works of the Railways to augment the evacuation capacities from the existing Sidings onwards to bulk unloading destinations like the Paradeep Port, now there is no specific requirement of an additional Railway Siding within their lease hold area. They claim that Road transportation up to the existing Railway Sidings within the 20 Km vicinity and Rail transportation thereafter, appear to be a better alternative to the aforesaid special EC condition. The basic purport of their contention appeared to be that there has been a substantial expansion of road/rail transport capacities since pre-EC stage of the Project (i.e. in the year 2008-09), hence there is no more any need for the stipulated additional dedicated Railway Siding.

In support of their above request for continuation of 'status quo', the PP has brought out a field study on existing road and rail network, present mode of transport of mineral, various capacity building works on both the modes of mineral movement from the Mines towards their destinations and possibility and viability of alternate modes of transport. Authorship of the 'study' was attributed to 'Creative Engineers & Consultants, Chennai and a'XYKno Infrastructure Pvt. Ltd, Nagpur.

The Committee Members who had perused the 'Study Report', observed that the Report lacks authenticity, as the credentials of the Consultancy Firms, their "Accreditation statuses", the experience and expertise profiles of the Study Team Members are not at all clear. The study period, details of public source documents relied upon, certification/

endorsements of the Agencies involved like NHAI, Indian Railways, CPWD/ PWD were also not provided. As multiple Users are involved, the present traffic densities quoted and Projections made also need to be verified/ authenticated by the concerned Agencies. The comparative studies of Rail /Road /Belt Conveyor alternatives lack details and are far from convincing. There is no evidence of any consultation /discussion with the concerned Authorities of the State Govt./ Railways in regard to various claims made/conclusions drawn.

The Committee was of the view that the PP should resubmit a thoroughly Refurbished Report after rectifying all the aforesaid deficiencies and necessary consultations with the State Government and other concerned Authorities like the Railways, NHAI, CPWD/PWD are held and their views on the subject matter ascertained and reported.

On submission of information the proposal was considered in the EAC meeting held during March 16-18, 2015. The PP submitted that the mine is not operating as the mine lease was under second and subsequent renewal therefore the mine is closed post Hon'ble Supreme Court order dated 16.05.2014. The PP submitted the traffic study for Feasibility of Mineral Transportation in Joda-Barbil, Odisha was carried out by Central Road Research Institute (CRRI), New Delhi during 2013-14 and the report was given in Aug – 2014. However, the report does not have any authentication from CRRI. The Pre-feasibility of Alternative transport system such as dedicated Railway Siding /Conveyor Belt System/Road Transport for transportation of mineral from their mine to nearby existing railway siding was also carried out by "M/s a'XYKno Infrastructure Pvt. Ltd" during the year 2012. After the detailed deliberations, the Committee was of the view that reports submitted by the PP were still vague and not specific to the mine lease and were not authenticated by the Organization claimed by the PP. The State Government was also not consulted while preparing the Report.

The Committee was of the view that the PP should resubmit the Report with authentic information in consultation with the State Government. In addition, it may also be ascertained from the State Government whether any order for determination of Mining Lease/rejection of Mining Lease, if any, has been passed by the State Govt. in respect of this mine, post Supreme Court order dated 16.05.2014. The proposal may be brought back on submission of the above information.

The PP vide letter dated 20.04.2015 submitted the following:

- i. Extract of the CRRI report & Letter from CRRI which is self-explanatory. This report is prepared by CRRI in consultation with state Govt., Odisha & NHAI.
- ii. Letter from NHAI expressing their views on Nuagaon traffic study report conducted by CRRI vide letter No. NHAI/11012/7/RO (CRRI/2012/TIU/KJR/7092 dated 13.3.2015).
- iii. Authenticated report by a'XYKno Infrastructure Pvt. Ltd along with accreditation letter by the South East Central Railway vide letter No. Engg/G-2/Apvd.Cons/AXYKNO/04 dated 13.08.2013 and West Central Railway vide its letter no. W-HQ/WG/Apvd-List/Consultant/a'XYKno infrastructure dated 25.09.2013.

- iv. Letter from South Eastern Railway (SER) expressing their inability to provide any new sidings taking off from Jaroli or between Barbil and Bolanikhadan vide Itr no AS/60/34Pt-XI dtd 25.02.2014. They have also conveyed that stacking / storing of mineral in the jaroli railway sidings is not allowed vide their letter dated 2nd April 2014.
- v. The validity of the mining lease of Nuagaon Iron Ore Mines of M/s KJS Ahluwalia has been extended up to 31.03.2020 vide letter No. 3245/S&M, Bhubaneswar dated 18th April 2015 received from Department of Steel and Mines, Govt. of Odisha. The letter quotes that *"The Government have been pleased to decide to extend the validity period of mining lease u/s 8A (6) of the M&M (D&R) Act, 1957, as amended by the MMDR Amendment Act, 2015 from 04.03.1999 to 31.03.2020"*.

Based on the information furnished and presentation made by the Project Proponent and discussions held, the Committee **recommended** the proposal for amendment of Environmental Clearance condition item V.

Agenda item no. 3 with the permission of the Chair

(3.1).River Bed Mining Project from River Banas with Production Capacity of 7.2 million TPA (ROM) of Bajri by M/s. S.R. Associates, located at near Villages: Amlī, Banthali, Jalseena, Jaleri, Jagatya, Nandpura, Rajmahal, Satwara, Santhali; Tehsil- Deoli; District: Tonk (Rajasthan) (1667.78ha) (Consultant: JM EnviroNet Pvt. Ltd., Haryana)-Reconsideration of EC

The proposal of M/s. S.R. Associates is for River Bed Mining Project from River Banas with Production Capacity of 7.2 million TPA (ROM) of Bajri. The mining lease area is located at Village(s) Amlī, Banthali, Jalseena, Jaleri, Jagatya, Nandpura, Rajmahal, Satwara, Santhali, Tehsil: Deoli, District: Tonk (Rajasthan).

The Proposal was earlier considered in the EAC meeting held during December 10-11, 2014 wherein the Committee decided that the Proposal be deferred and that the same be re-considered without calling the PP after receipt of the following information/clarifications:-

- (i) The Committee has observed that Public made representation with regard to Water management, Socio- economic development, Employment, Transportation, pollution, damage of fertile land, water level degradation, fluoride concentration in water; and Time- bound Action Plan along with the budgetary allocation on the issues raised during the Public Hearing. In view of the above, the Committee was of the view that the PP has to make a proper Action Plan on the issues raised during the PH along with budgetary provisions and SPCB may be requested to submit all hard copies of the Representations received regarding the Project;

**MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(IMPACT ASSESSMENT DIVISION)
NON-COAL MINING SECTOR**

SUMMARY RECORD OF 36th MEETING OF THE RECONSTITUTED COMMITTEE OF THE EXPERT APPRAISAL COMMITTEE FOR ENVIRONMENTAL APPRAISAL OF MINING PROJECTS CONSTITUTED UNDER EIA NOTIFICATION, 2006.

The 36th Meeting of the Reconstituted Expert Appraisal Committee for Environmental Appraisal of Mining Projects (Non-Coal) of the Ministry of Environment, Forest and Climate Change was held during **July 29-30, 2015**. The list of participants is annexed.

After welcoming the Committee Members, discussion on each of the Agenda Items was taken up ad-seriatim.

Item No. 1:

(1). Circulation of the Minutes of the 35th EAC Meeting

The Minutes of the 35th Meeting of EAC held during **June 24-26, 2015** were circulated.

Day 1: 29th July, 2015 (Wednesday)

Item No. 2:

Consideration of Environmental Clearance Proposals

(2.1). Mining of Black Granite (Minor Mineral) with proposed production capacity of 20,172 m³/Annum(ROM) by M/s. Tamil Nadu Minerals Limited (TAMIN), located at village - Mylarwada, Tehsil - Pallipattu, District - Thiruvallur, Tamil Nadu (16.95ha) (Consultant : ABC Techno Labs India Private Limited) - consideration of EC

The proposal of M/s. Tamil Nadu Minerals Limited (TAMIN), Chennai is for mining of black granite (minor mineral) with proposed capacity of 20,172 m³/Annum (ROM). The mine lease area of 16.95ha is located at village - Mylarwada, Tehsil - Pallipattu, District - Thiruvallur, Tamil Nadu. The Latitudes and Longitudes of the mine lease area lies between 13°04' 02" N and 79°21' 38" E on Survey of India topo-sheet number 57 - O/8. The project is located in Seismic Zone II (Least Active). It is category 'B' project due to Inter State Boundary of Andhra Pradesh and Tamil Nadu with distance of 5.6 km on Northwest direction. The Project has been submitted to the Ministry as the tenure of the SEIAA Tamil Nadu has expired.

The proposal of ToR was considered by the Reconstituted Expert Appraisal Committee in its 9th meeting held during July, 22nd-24th, 2013 to determine the Terms of Reference (ToR) for undertaking detailed EIA study. The ToR was issued by MoEFCC

screening & crushing of 3.7 million TPA of low grade iron ore/reworking of old dump) only.

The Committee, after detailed deliberations, **recommended** the Proposal for amendment of EC. The EC shall be for production of iron ore from 5.5 MTPA to 16.5 MTPA (12.8 million TPA ROM by fresh excavation + dry screening & crushing of 3.7 million TPA of low grade iron ore/reworking of old dump) only.

(2.53). J-11015/317/2009-IA-II(M) Nuagaon Iron Ore beneficiation plant of M/s Kamaljeet Singh Ahluwalia located in village- Nuagaon, Guali, Topadihi, Barapada and Katasahi, Tehsil Barbil District _ Keonjhar, Odisha

The Nuagaon Iron Ore Beneficiation plant, M/s KJS Ahluwalia, is located at village(s) Guali and Barpada, Tehsil Barbil, Keonjhar District, Odisha, within the existing mine lease area of 767.284 Ha. The beneficiation plant is working with a rated capacity of 2 MTPA. Environment clearance for 2.0 MTPA beneficiation plant (within the existing mine lease) was issued by MOEF vide letter no. J-11015/317/2009-IA.II (M) dated 16.02.2012. The NOC has been obtained from CGWA for Ground water drawl. Site specific Wild life conservation plan had been approved vide Memo no – 549 dated 28.01.09.

Environmental clearance for 2 MTPA beneficiation plant was issued vide no. J-11015/317/2009-IA.II (M) dated 16.02.2012 with specific condition (no. VIII) "Mineral transportation after the 5th year shall be carried out only by rail".

Thus the proposal is for amendment of EC condition no. VIII i.e. "Mineral transportation after the 5th year shall be carried out only by rail". The Committee noted that the PP had not taken any compliance action on this EC stipulation during the last three years, nor had they informed the Ministry about their intent not to fulfil the same. The present appraisal is therefore without any prejudice to the binding nature of the item VIII.

The Agenda item before the Committee relates to withdrawal of the aforesaid special condition VIII in the EC. It was requested by the PP that in view of widening and expanding of the NH-215 in the vicinity, as also development Works of the Railways to augment the evacuation capacities from the existing Sidings onwards to bulk unloading destinations like the Paradeep Port, now there is no specific requirement of an additional Railway Siding within their lease hold area. They claim that Road transportation up to the existing Railway Sidings within the 20 Km vicinity and Rail transportation thereafter, appear to be a better alternative to the aforesaid special EC condition. The basic purport of their contention appeared to be that there has been a substantial expansion of road/rail transport capacities since pre-EC stage of the project (i.e. in the year 2008-09), hence there is no more any need for the stipulated additional dedicated Railway Siding.

In support of their above request for continuation of 'status quo', the PP has brought out a field study on existing road and rail network, present mode of transport of mineral, various capacity building works on both the modes of mineral movement from the Mines towards their destinations and possibility and viability of alternate modes of transport. Authorship of the 'study' was attributed to 'Creative Engineers & Consultants, Chennai and a'XYKno Infrastructure Pvt. Ltd, Nagpur.

The Committee Members who had perused the 'Study Report', observed that the Report lacks authenticity, as the credentials of the Consultancy Firms, their 'Accreditation status', the experience and expertise profiles of the Study Team Members are not at all clear. The study period, details of public source documents relied upon, certification/ endorsements of the Agencies involved like NHAI, Indian Railways, CPWD/PWD were also not provided. As multiple Users are involved, the present traffic densities quoted and projections made also need to be verified/ authenticated by the concerned Agencies. The comparative studies of Rail/Road/Belt Conveyor alternatives lack details and are far from convincing. There is no evidence of any consultation/discussion with the concerned Authorities of the State Govt./ Railways in regard to various claims made/conclusions drawn.

The proposal was considered in the EAC meeting held during **16th& 17th December, 2013**. The Committee was of the view that the PP should resubmit a thoroughly Refurbished Report after rectifying all the aforesaid deficiencies and necessary consultations with the State Government and other concerned Authorities like the Railways, NHAI, CPWD/PWD are held and their views on the subject matter ascertained and reported.

On submission of information the proposal was considered in the present EAC meeting. The PP submitted the following:

- i. Extract of the CRRi report & Letter from CRRi which is self-explanatory. This report is prepared by CRRi in consultation with state Govt., Odisha & NHAI.
- ii. Letter from NHAI expressing their views on Nuagaon traffic study report conducted by CRRi vide letter No. NHAI/11012/7/RO (CRRi/2012/TIU/KJR/7092 dated 13.3.2015.
- iii. Authenticated report by a'XYKno Infrastructure Pvt. Ltd along with accreditation letter by the South East Central Railway vide letter No. Engg/G-2/Apvd.Cons/AXYKNO/04 dated 13.08.2013 and West Central Railway vide its letter no. W-HQ/WG/Apvd-List/Consultant/a'XYKno infrastructure dated 25.09.2013.
- iv. Letter from South Eastern Railway (SER) expressing their inability to provide any new sidings taking off from Jaroli or between Barbil and Bolanikhadan vide ltr no AS/60/34Pt-XI dtd 25.02.2014. They have also conveyed that stacking / storing of mineral in the jaroli railway sidings is not allowed vide their letter dated 2nd April 2014.
- v. The validity of the mining lease of Nuagaon Iron Ore Mines of M/s KJS Ahluwalia has been extended up to 31.03.2020 vide letter No. 3245/S&M, Bhubaneswar dated 18th April 2015 received from Department of Steel and Mines, Govt. of

Odisha. The letter quotes that “*The Government have been pleased to decide to extend the validity period of mining lease u/s 8A (6) of the M&M (D&R) Act, 1957, as amended by the MMDR Amendment Act, 2015 from 04.03.1999 to 31.03.2020*”.

The PP also informed that the proposal of amendment of EC for mining project was considered by the EAC in the meeting held during **May 27-29, 2015** wherein the Committee had recommended the amendment of EC issued by MOEF vide letter no. J-11015/1156/2007-IA.II (M) dated 2.2.2010, by deleting the specific condition (item V) “Alternative transport system such as dedicated Railway siding for transportation of mineral from their mine shall be studied and put in place at the earliest but not later than five years. No mineral transportation by road shall be permitted beyond 5 years”.

Based on the information furnished and presentation made by the Project Proponent and discussions held, the Committee **recommended** the proposal for amendment of Environmental Clearance condition item VIII.

EXTENSION/AMENDMENT OF TOR PROPOSALS

(2.54). J-11015/437/2013-IA.II(M) Expansion of Silica Sand Beneficiation Plant of M/s Mangalore Minerals Pvt. Ltd. located at Village Momidi, Tehsil – ChillakurMandalam, Gudur, Nellore District, Andhra Pradesh.

The Proposal was **deferred** as the Project Proponent did not attend the meeting.

(2.55). J-11015/297/2010-IA.II (M) Limestone Mining of M/S. Nellore Mica Mine Association located at Nellore District, Andhra Pradesh (63.00 ha).

The Proposal was **deferred** as the Project Proponent did not attend the meeting.

(2.56). J-11015/136/2011-IA.II(M) River Bed Mining project of Sand, Bajri & Stone (Minor Minerals) of M/s Shri Gurmit Singh, Village Reru Uparla, P.O. & Tehsil Nalagarh, District Solan, Himachal Pradesh

The Proposal of M/s Shri Gurmit Singh is for Minor Mineral (Sand, Bajri& Stone) Mining with production enhancement from 22100 to 58,750TPA The mine is located at village ReruUparla, Tehsil Nalgarh District – Solan Himachal Pradesh. The TOR to the project was issued vide letter no. J-11015/136/2011-IA.II (M) dated 30th March 2012. The Public Hearing was conducted on 24-5-2013 at 11.00 am at village Upprala Reru, Nalgarh, Solan. Public Hearing was presided over by Additional Deputy Commissioner, Solan. The final EIA/EMP report after conducting public hearing has been submitted on 01.11.2013. The matter was examined in Ministry and it was informed that, this is a violation case& it can be further processed only after the State Govt. has initiated

Speed Post

No. J-11015/1156/2007-IA.II (M)
Government of India
Ministry of Environment, Forest and Climate Change
Impact Assessment Division

Indira Paryavaran Bhavan,
Aliganj, Jor Bagh Road
New Delhi-110 003

Dated: 31st March, 2017

To,

M/s Kamaljeet Singh Ahluwalia
At/PO-Barbil
District-Keonjhar, Odisha
Pin-758 035

Sub.: Amendments in EC letter No. J-11015/1156/2007-IA.II (M) dated 02.02.2010 w.r.t. grant of temporary permission of two years for completing the installation of conveyor belts and in the Nuagaon Iron Ore mining project of M/s Kamaljeet Singh Ahluwalia, located in village (s) Nuagaon, Guali, Topadihi, Barapada and Katasahi, Tehsil-Barbil, District- Keonjhar, Odisha (MLA:767.284ha)-regarding

Sub.: Environmental Clearance issued vide letter No. J-11015/1156/2007-IA.II (M) dated 02.02.2010

This has reference to your proposal for amendment in EC No. J-11015/1156/2007-IA.II (M) dated 02.02.2010 w.r.t. amendment in EC specific condition No. A (v) i.e. *Alternative transport system such as dedicated Railway siding for transportation of mineral from their mine shall be studied and put in place at the earliest but not later than five years. No mineral transportation by road shall be permitted beyond 5 years.*

2. The Ministry of Environment, Forest and Climate Change (MoEF&CC) had accorded the environmental clearance vide its letter dated 02.02.2010 to M/s Kamaljeet Singh Ahluwalia for Nuagaon Iron Ore mining project with proposed production capacity of 5.6 million TPA of Iron Ore. The mine is located at village (s) Nuagaon, Guali, Topadihi, Barapada and Katasahi, Tehsil-Barbil, District- Keonjhar, Odisha in the mine lease area of 767.284ha. The proposal for amendment of EC condition was appraised before the EAC in its meeting held during December 16-17, 2013 wherein EAC noted that the Project Proponent had not taken any compliance action on this EC stipulation during the last three years, nor had they informed the Ministry about their intent not to fulfil the same.

3. The Proposal was reconsidered by the EAC in its meeting held during March 16-18, 2015 and subsequently, **in May 27-29, 2015 the Committee recommended the proposal.** The Regional office of the Ministry has inspected the mine on 21.05.2016 and submitted the Report to the Ministry on 28.07.2016. The proposal of amendments in EC dated 02.02.2010 w.r.t. specific condition no. A

(v) i.e. the Project Proponent cannot dispatch/transport the ore beyond 01.02.2015 is examined in the MoEFCC and the EC is hereby amended inistry of Environment, Forest and Climate Change as per the specific condition No. A (v) i.e. No mineral transportation by road shall be permitted beyond 5 years.

4. The matter has been examined in the Ministry and the said EC letter of even no. dated 02.02.2010 is hereby **amended w.r.t. grant of temporary permission of two years for completing the installation of conveyor belts in the Nuagaon Iron Ore mining project from the issue of this letter.**

5. All other terms and conditions mentioned in this Ministry's EC letter no. J-11015/1156/2007-IA.II (M) dated 02.02.2010 shall remain the same.

6. This issues with the approval of the Competent Authority.

Yours faithfully,


(Dinesh Runiwal)
Scientist-D

Copy to:

- 1) The Secretary, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi.
- 2) The Secretary, Department of Environment, Government of Odisha, Secretariat, Bhubaneswar
- 3) The Secretary, Department of Mines and Geology, Government of Odisha, Secretariat, Bhubaneswar.
- 4) The Secretary, Department of Forests, Government of Odisha, Secretariat, Bhubaneswar.
- 5) The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
- 6) The Additional Principal Chief Conservator of Forests (C), Ministry of Environment, Forest and Climate Change, Regional Office (EZ), A/3, Chandersekharapur, Bhubaneswar - 751023
- 7) The Chairman, Odisha State Pollution Control Board, Parivesh Bhawan, A/118 Nilakantha Nagar, Unit-VIII, Bhubaneshwar-751012
- 8) The Controller General, Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur-440 001.
- 9) The Member Secretary, Central Ground Water Authority, A2, W3 Curzon Road Barracks, K.G. Marg, New Delhi-110001.
- 10) The District Collector, Keonjhar District, State of Odisha.
- 11) Guard File.


(Dinesh Runiwal)
Scientist-D



KAMALJEET SINGH AHLUWALIA

Mines Owner & Exporter

Office : P.B. No.: 3, In front of MMTC Weigh Bridge, At/Po.: Barbil - 758 035, Dist.: Keonjhar, Odisha, India
Telefax : 06767 - 270049, E - mail : kjsahluwalia@rediffmail.com

Ref No: KJSA/NIOM/MoEF&CC/2017/ 151

Date: 27/05/17

To,

The Director,

IA Division (Mining)

Ministry of Environment, Forest & Climate Change,

Govt. of India, New Delhi.

Sub: Amendment of specific conditions in EC for 5.62 MTPA Iron ore mining and 2.0 MTPA Beneficiation Plant, as recommended by EAC in respect of Nuagaon Iron Ore Mines of KJS Ahluwalia under Keonjhar District, Odisha.

Ref: Minutes of EAC Meeting held during 27-29th March 2015 and EAC Meeting held on 30th July 2015 recommending amendment of the EC Condition for our mining project and beneficiation project for Nuagaon Iron Ore Mines.

Dear Sir;

With reference to the above cited subject, we would like to submit as under:

That, Nuagaon Iron Ore Mines (767.284 Ha) is located in village(s) Nuagaon, Guali, Topadihi, Barpada and Katasahi , Tehsil- Barbil of Keonjhar District of Odisha. The Mine is being worked for a rated capacity of 5.62 Million Tonnes per annum (MTPA). Environment Clearance for 5.62 MTPA iron ore production was issued by MoEF vide letter No: J-11015/1156/2007-IA.II(M) dated 02.02.2010 stipulating a specific condition (Item V) “ *Alternative transport system such as dedicated Railway siding for transportation of mineral from their mine shall be studied and put in place at the earliest but not later than five years. No mineral transportation by road shall be permitted beyond 5 years*”.

Similarly the beneficiation Plant located within the existing mining lease is working with a rated capacity of 2.0 MTPA and the Environment Clearance was issued by MoEF vide letter No: J-11015/317/2009-IA.II(M) dated 16.02.2012 with a specific condition (no.VIII)” *Mineral transportation after the 5th year shall be carried out only by Rail*”.

In compliance of the conditions said above the proponent in the year 2012 has taken up following steps:

1. Entrusted the job to aXYKNO Infrastructure Pvt. Ltd, Nagpur to conduct the feasibility study report on “alternative transportation system” i.e. laying of railway lines/conveyor belt

from the mines to the nearby siding and for traffic study we engaged **Creative Engineers & Consultant, Chennai** in association with **aXYKNO**.

As per the **aXYKNO** report, it was found that there were difficulties due to the undulating/hilly terrain and involvement of reserve forest land, tribal areas and other existing mining leases. Most importantly the ruling gradient on the proposed siding was 1.25%, which would restrict the train load or require banking of trains (pushing from rear) and was therefore not acceptable to Railways. There was hardly any space near the ML area for loading yard construction. **Similarly there was hardly any space near existing station yards where additional lines could be laid or material could be stacked. Based on the above study it was found that there were huge difficulties in laying of railway lines and conveyor system.**

South Eastern Railway (SER) had expressed **their inability to provide any new sidings with "take off" from Jaroli or between Barbil and Bolanikhadan** vide letter no AS/60/34Pt-XI dtd 25.02.2014 and also conveyed that **stacking / storing of mineral in the Jaroli railway siding is also not allowed** vide their letter dated 2nd April 2014. (Copy enclosed as Annexure-I)

2. Similarly, based on the road and railway network development as described above, we carried out detailed traffic study by engaging an EIA consultant in the year 2013. As per the findings of the study, **the average hourly traffic both ways was about 102 trucks (on 18 hours basis) and the norm is category B (25%) considering the 2-lane road earlier and considering 4-lane road development the capacity of utilization is coming (11%) i.e. Category 'A'.**

With the above **aXYKNO** report, traffic study report and SER's reply, we applied for the amendment in EC condition for mining & beneficiation vide letter no. **NIOM-KJS/MoEF/2013/ on 8th September 2013** (Copy enclosed as Annexure-II). We presented our proposal in the **15th EAC meeting held on 17th December 2013**. The Committee went through the details of our study and understood the drastic decrease in the traffic volume with simultaneous development in the road & railways.

But at the same time the Hon'ble Members of the Committee questioned the Authenticity of the report & credentials of the consultant and asked to involve the **NHAI/PWD in the traffic study and get the report authenticated from them.**

Then, as per the direction of EAC, on **15th February 2014** we approached **NHAI** for involvement in the traffic study and on **28th April 2014** submitted the traffic study report to **NHAI** done by the EIA consultant for approval & authentication.

At the same time in the month of February-2014 Central Road Research Institute (CRRI), New Delhi did a traffic study in the Joda, Barbil area of Keonjhar district and submitted the final report in the month of August-2014. At the time of their study they approached NHAI & taken the details from their DPR 2011 vide NHAI letter no. 25.02.2014. We took an extract of "Joda-Barbil traffic study report" done by CRRI for their NH-215 stretch and submitted the report to NHAI on 19.09.2014 for authentication. NHAI had given its comment on CRRI report on 15.06.2015 in a positive way.

As per the CRRI report the average peak hour traffic in PCU, in the stretch of NH-215 passing through the KJSA mines, is 685 (near KJSA tri-junction), 861 (near Rugudih tri-junction) and 1407 (near Bhadrasahi tri-junction). The average V/C ratio in this stretch of the road is coming 0.29 by considering 4-laning of NH-215.

As directed by the Committee, on 20th April 2015 we submitted following to the MoEF:

- i) the CRRI authenticated report,
- ii) Authenticated aXYKno report with credentials (*accredited by the South East Central Railway vide letter No. Engg/G-2/Apvd.Cons/AXYKNO/04 dated 13.08.2013 and West Central Railway vide its letter no. W-HQ/WG/Apvd-List/Consultant/a'XYKno infrastructure dated 25.09.2013*),
- iii) Letter from NHAI expressing their views on CRRI report, iv) Letter from SER, and
- iv) Validity of mining lease letter from State Govt. Odisha.

On the basis of our submission and presentation during the EAC meeting on 29th May 2015 the committee recommended for amendment in the said condition for the mining project. Similarly on 30th July 2015 in the presentation held before EAC for Beneficiation plant project & the committee recommended for amendment in the said condition for beneficiation project. (Copy enclosed as Annexure-III)

Again MoEF&CC, Govt. of India asked us to give the details regarding dispatch of material for captive use & non-captive use with road distances, vide it's letter no. J-11015/1156/2007-IA.II (M) dated 27th October 2015 and we submitted the required details vide letter dated 4th November 2015.

Due to the inordinate delay in getting the order even after EAC's recommendation since 30th May and 30th July 2015, we approached the Secretary, Joint Secretary & Additional Secretary of MoEF&CC, Govt. of India with a letter of request dated 14th October 2016 to intervene in the process towards grant of the EC at the earliest.

Whereas, MoEF& CC, Govt. of India vide letter No. J-11015/1156/2007-IA.II (M) dated 31.03.2017 communicated by stating that "*grant of temporary permission of two years for*

completing the installation of conveyor belts in the Nuagaon Iron ore mining project from the issue of this letter”.

In this regard we would like to bring to your kind notice that during the consideration of the proposals by EAC on 29th May and 30th July 2017 the committee has noted the following fact that;

- a) Extract of the CRR I report & Letter from CRR I which is self-explanatory. This report is prepared by CRR I in consultation with state Govt., Odisha & NHAI.*
- b) Letter from NHAI expressing their views on Nuagaon traffic study report conducted by CRR I vide letter No. NHAI/11012/7/RO (CRR I/2012/TIU/KJR/7092 dated 13.3.2015.*
- c) Authenticated report by a'XYKno Infrastructure Pvt. Ltd along with accreditation letter by the South East Central Railway vide letter No. Engg/G-2/Apvd.Cons/AXYKNO/04 dated 13.08.2013 and West Central Railway vide its letter no. W-HQ/WG/Apvd- List/Consultant/a'XYKno infrastructure dated 25.09.2013.*
- d) Letter from South Eastern Railway (SER) expressing their inability to provide any new sidings taking off from Jaroli or between Barbil and Bolanikhadan vide letter no AS/60/34Pt-XI dtd 25.02.2014. They have also conveyed that stacking / storing of mineral in the Jaroli railway sidings (through conveyor belt from mines) is not allowed vide their letter dated 2nd April 2014.*
- e) The validity of the mining lease of Nuagaon Iron Ore Mines of M/s KJS Ahluwalia has been extended up to 31.03.2020 vide letter No. 3245/S&M, Bhubaneswar dated 18th April 2015 received from Department of Steel and Mines, Govt. of Odisha. The letter quotes that “The Government have been pleased to decide to extend the validity period of mining lease u/s 8A (6) of the M&M (D&R) Act, 1957, as amended by the MMDR Amendment Act, 2015 from 04.03.1999 to 31.03.2020”.*

Keeping in view of the left out lease period for the project i.e. 31st March 2020 and the facts stated above, it is request to your good self to issue formal order granting the amendment of EC condition as recommended by the Expert Appraisal Committee in respect of our above mentioned projects.

Thanking You
Yours Sincerely


Manager
for M/S KJS Ahluwalia
Nuagaon Iron Ore Mines
M/s K.J.S AHLUWALIA

CC: Joint Secretary, Ministry of Environment, Forest & CC, New Delhi-110003.

screening & crushing of 3.7 million TPA of low grade iron ore/reworking of old dump) only.

The Committee, after detailed deliberations, **recommended** the Proposal for amendment of EC. The EC shall be for production of iron ore from 5.5 MTPA to 16.5 MTPA (12.8 million TPA ROM by fresh excavation + dry screening & crushing of 3.7 million TPA of low grade iron ore/reworking of old dump) only.

(2.53). J-11015/317/2009-IA-II(M) Nuagaon Iron Ore beneficiation plant of M/s Kamaljeet Singh Ahluwalia located in village- Nuagaon, Guali, Topadihi, Barapada and Katasahi, Tehsil Barbil District _ Keonjhar, Odisha

The Nuagaon Iron Ore Beneficiation plant, M/s KJS Ahluwalia, is located at village(s) Guali and Barpada, Tehsil Barbil, Keonjhar District, Odisha, within the existing mine lease area of 767.284 Ha. The beneficiation plant is working with a rated capacity of 2 MTPA. Environment clearance for 2.0 MTPA beneficiation plant (within the existing mine lease) was issued by MOEF vide letter no. J-11015/317/2009-IA.II (M) dated 16.02.2012. The NOC has been obtained from CGWA for Ground water drawl. Site specific Wild life conservation plan had been approved vide Memo no – 549 dated 28.01.09.

Environmental clearance for 2 MTPA beneficiation plant was issued vide no. J-11015/317/2009-IA.II (M) dated 16.02.2012 with specific condition (no. VIII) "Mineral transportation after the 5th year shall be carried out only by rail".

Thus the proposal is for amendment of EC condition no. VIII i.e. "Mineral transportation after the 5th year shall be carried out only by rail". The Committee noted that the PP had not taken any compliance action on this EC stipulation during the last three years, nor had they informed the Ministry about their intent not to fulfil the same. The present appraisal is therefore without any prejudice to the binding nature of the item VIII.

The Agenda item before the Committee relates to withdrawal of the aforesaid special condition VIII in the EC. It was requested by the PP that in view of widening and expanding of the NH-215 in the vicinity, as also development Works of the Railways to augment the evacuation capacities from the existing Sidings onwards to bulk unloading destinations like the Paradeep Port, now there is no specific requirement of an additional Railway Siding within their lease hold area. They claim that Road transportation up to the existing Railway Sidings within the 20 Km vicinity and Rail transportation thereafter, appear to be a better alternative to the aforesaid special EC condition. The basic purport of their contention appeared to be that there has been a substantial expansion of road/rail transport capacities since pre-EC stage of the project (i.e. in the year 2008-09), hence there is no more any need for the stipulated additional dedicated Railway Siding.

In support of their above request for continuation of 'status quo', the PP has brought out a field study on existing road and rail network, present mode of transport of mineral, various capacity building works on both the modes of mineral movement from the Mines towards their destinations and possibility and viability of alternate modes of transport. Authorship of the 'study' was attributed to 'Creative Engineers & Consultants, Chennai and a'XYKno Infrastructure Pvt. Ltd, Nagpur.

The Committee Members who had perused the 'Study Report', observed that the Report lacks authenticity, as the credentials of the Consultancy Firms, their 'Accreditation status', the experience and expertise profiles of the Study Team Members are not at all clear. The study period, details of public source documents relied upon, certification/ endorsements of the Agencies involved like NHAI, Indian Railways, CPWD/PWD were also not provided. As multiple Users are involved, the present traffic densities quoted and projections made also need to be verified/ authenticated by the concerned Agencies. The comparative studies of Rail/Road/Belt Conveyor alternatives lack details and are far from convincing. There is no evidence of any consultation/discussion with the concerned Authorities of the State Govt./ Railways in regard to various claims made/conclusions drawn.

The proposal was considered in the EAC meeting held during **16th& 17th December, 2013**. The Committee was of the view that the PP should resubmit a thoroughly Refurbished Report after rectifying all the aforesaid deficiencies and necessary consultations with the State Government and other concerned Authorities like the Railways, NHAI, CPWD/PWD are held and their views on the subject matter ascertained and reported.

On submission of information the proposal was considered in the present EAC meeting. The PP submitted the following:

- i. Extract of the CRRRI report & Letter from CRRRI which is self-explanatory. This report is prepared by CRRRI in consultation with state Govt., Odisha & NHAI.
- ii. Letter from NHAI expressing their views on Nuagaon traffic study report conducted by CRRRI vide letter No. NHAI/11012/7/RO (CRRRI/2012/TIU/KJR/7092 dated 13.3.2015.
- iii. Authenticated report by a'XYKno Infrastructure Pvt. Ltd along with accreditation letter by the South East Central Railway vide letter No. Engg/G-2/Apvd.Cons/AXYKNO/04 dated 13.08.2013 and West Central Railway vide its letter no. W-HQ/WG/Apvd-List/Consultant/a'XYKno infrastructure dated 25.09.2013.
- iv. Letter from South Eastern Railway (SER) expressing their inability to provide any new sidings taking off from Jaroli or between Barbil and Bolanikhadan vide ltr no AS/60/34Pt-XI dtd 25.02.2014. They have also conveyed that stacking / storing of mineral in the jaroli railway sidings is not allowed vide their letter dated 2nd April 2014.
- v. The validity of the mining lease of Nuagaon Iron Ore Mines of M/s KJS Ahluwalia has been extended up to 31.03.2020 vide letter No. 3245/S&M, Bhubaneswar dated 18th April 2015 received from Department of Steel and Mines, Govt. of

Odisha. The letter quotes that *"The Government have been pleased to decide to extend the validity period of mining lease u/s 8A (6) of the M&M (D&R) Act, 1957, as amended by the MMDR Amendment Act, 2015 from 04.03.1999 to 31.03.2020"*.

The PP also informed that the proposal of amendment of EC for mining project was considered by the EAC in the meeting held during **May 27-29, 2015** wherein the Committee had recommended the amendment of EC issued by MOEF vide letter no. J-11015/1156/2007-IA.II (M) dated 2.2.2010, by deleting the specific condition (item V) "Alternative transport system such as dedicated Railway siding for transportation of mineral from their mine shall be studied and put in place at the earliest but not later than five years. No mineral transportation by road shall be permitted beyond 5 years".

Based on the information furnished and presentation made by the Project Proponent and discussions held, the Committee **recommended** the proposal for amendment of Environmental Clearance condition item VIII.

EXTENSION/AMENDMENT OF TOR PROPOSALS

(2.54). J-11015/437/2013-IA.II(M) Expansion of Silica Sand Beneficiation Plant of M/s Mangalore Minerals Pvt. Ltd. located at Village Momidi, Tehsil – ChillakurMandalam, Gudur, Nellore District, Andhra Pradesh.

The Proposal was **deferred** as the Project Proponent did not attend the meeting.

(2.55). J-11015/297/2010-IA.II (M) Limestone Mining of M/S. Nellore Mica Mine Association located at Nellore District, Andhra Pradesh (63.00 ha).

The Proposal was **deferred** as the Project Proponent did not attend the meeting.

(2.56). J-11015/136/2011-IA.II(M) River Bed Mining project of Sand, Bajri & Stone (Minor Minerals) of M/s Shri Gurmit Singh, Village Reru Uparla, P.O. & Tehsil Nalagarh, District Solan, Himachal Pradesh

The Proposal of M/s Shri Gurmit Singh is for Minor Mineral (Sand, Bajri& Stone) Mining with production enhancement from 22100 to 58,750TPA The mine is located at village ReruUparla, Tehsil Nalgarh District – Solan Himachal Pradesh. The TOR to the project was issued vide letter no. J-11015/136/2011-IA.II (M) dated 30th March 2012. The Public Hearing was conducted on 24-5-2013 at 11.00 am at village Upprala Reru, Nalgarh, Solan. Public Hearing was presided over by Additional Deputy Commissioner, Solan. The final EIA/EMP report after conducting public hearing has been submitted on 01.11.2013. The matter was examined in Ministry and it was informed that, this is a violation case& it can be further processed only after the State Govt. has initiated

Based on discussion held and presentation made the EAC decided to **deferred** the proposal and sought the following information/clarifications for further decision on the matter:-

- (i) A clarification shall be submitted that whether this is a violation case or not.
- (ii) The duly filled in questionnaire with all the points shall be submitted.
- (iii) A certificate from State Government that no PA falls within 10 km radius of the mine lease area.

(2.72). Boria Tibbu Iron Ore mine of M/s Godawari Power and Ispat Ltd. at Village Boria tibbu, tehsil: Mohala, District Rajnandgaon, Chhattisgarh (7.05 lakhs TPA; 110ha)- Amendment in Environmental Clearance.

The proposal no. IA/CG/MIN/26356/1900 is for Boria Tibbu Iron Ore mine of M/s Godawari Power and Ispat Ltd. at Village Boria tibbu, tehsil: Mohala, District Rajnandgaon, Chhattisgarh for addition of Iron Ore Crusher of 7.05 TPA capacity. The Latitude and Longitude of the mine site 110 ha area is 20° 26' 10" to 20° 26' 40" N and 80° 55' 20" to 80° 56' 8" E, Toposheet No. 64D/15.

The environmental clearance was issued to the project vide letter no. J-11015/208/2006-IA.II(M) dated 31st January, 2007 for 7.05 lakh MTPA. The PP vide proposal no. IA/CG/MIN/26356/1900 dated 06.01.2015 and letter No. GPIL/Env/14-15/01 dated 03.03.2015 requested for following amendments:

Amendment in EC is proposed to install iron ore crusher of 2 no. x 150 TPH capacity in an area of 6400 sq. meter with screening facilities.

The proposal was considered in the EAC meeting and committee was of the view that the proposal shall be **brought back** to the Committee on submission of following details by the PP:

- i. The revised form-I shall be submitted.
- ii. A report on environmental implications of installation of the crushing and screening unit.
- iii. A certification from the IBM that iron ore crusher of 2 no. x 150 TPH capacities in an area of 6400 sq. meter with screening facilities was part of the mine plan earlier approved by IBM.
- iv. A certified compliance report of the EC no. J-11015/208/2006-IA.II(M) dated 31st January, 2007 from the Regional Office, Nagpur.

Additional agenda item:

(2.73) Nuagaon Iron Ore Mines, M/s KJS Ahluwalia, located at village(s) Nuagaon, Guali, Topadihi, Barpada and Katasahi, Tehsil Barbil, Keonjhar District, Odisha over an area of 767.284 Ha- EC Amendment.

The Nuagaon Iron Mine of M/s KJS Ahluwalia (767.284 Ha) is located in village(s) Nuagaon, Guali, Topadihi, Barpada and Katasahi, tehsil Barbil, Keonjhar District, Odisha. The mine is being worked for a rated capacity of 5.62 Million Tonnes Per annum (MTPA). Out of the total area of 767.284 ha, 525.762 ha is forest area and the remaining 241.522 ha is non-forest area. Forest clearance was obtained under FC Act 1980 for 371.192 ha vide letter no: 8-17/2001-FC, dated 22.04.2004. Forest clearance for the entire forest area including the safety zone has already been applied for. Present Lease period is valid till 03.12.2019.

Environment clearance for 5.62 MTPA iron ore production was issued by MOEF vide letter no. J-11015/1156/2007-IA.II (M) dated 2.2.2010. The Environmental clearance stipulates a specific condition (item V) *"Alternative transport system such as dedicated Railway siding for transportation of mineral from their mine shall be studied and put in place at the earliest but not later than five years. No mineral transportation by road shall be permitted beyond 5 years"*.

Thus the proposal is for amendment of EC condition item V. The proposal was considered in the EAC meeting held during December 2013 and the Committee noted that the PP had not taken any compliance action on this EC stipulation during the last three years, nor had they informed the Ministry about their intent not to fulfil the same. The present appraisal is therefore without any prejudice to the binding nature of the item V.

The Agenda item before the Committee relates to withdrawal of the aforesaid special condition V in the EC. It was requested by the PP that in view of widening and expanding of the NH-215 in the vicinity, as also development Works of the Railways to augment the evacuation capacities from the existing Sidings onwards to bulk unloading destinations like the Paradeep Port, now there is no specific requirement of an additional Railway Siding within their lease hold area. They claim that Road transportation up to the existing Railway Sidings within the 20 Km vicinity and Rail transportation thereafter, appear to be a better alternative to the aforesaid special EC condition. The basic purport of their contention appeared to be that there has been a substantial expansion of road/rail transport capacities since pre-EC stage of the Project (i.e. in the year 2008-09), hence there is no more any need for the stipulated additional dedicated Railway Siding.

In support of their above request for continuation of 'status quo', the PP has brought out a field study on existing road and rail network, present mode of transport of mineral, various capacity building works on both the modes of mineral movement from the Mines towards their destinations and possibility and viability of alternate modes of transport. Authorship of the 'study' was attributed to 'Creative Engineers & Consultants, Chennai and a'XYKno Infrastructure Pvt. Ltd, Nagpur.

The Committee Members who had perused the 'Study Report', observed that the Report lacks authenticity, as the credentials of the Consultancy Firms, their "Accreditation statuses", the experience and expertise profiles of the Study Team Members are not at all clear. The study period, details of public source documents relied upon, certification/

endorsements of the Agencies involved like NHAI, Indian Railways, CPWD/ PWD were also not provided. As multiple Users are involved, the present traffic densities quoted and Projections made also need to be verified/ authenticated by the concerned Agencies. The comparative studies of Rail /Road /Belt Conveyor alternatives lack details and are far from convincing. There is no evidence of any consultation /discussion with the concerned Authorities of the State Govt./ Railways in regard to various claims made/conclusions drawn.

The Committee was of the view that the PP should resubmit a thoroughly Refurbished Report after rectifying all the aforesaid deficiencies and necessary consultations with the State Government and other concerned Authorities like the Railways, NHAI, CPWD/PWD are held and their views on the subject matter ascertained and reported.

On submission of information the proposal was considered in the EAC meeting held during March 16-18, 2015. The PP submitted that the mine is not operating as the mine lease was under second and subsequent renewal therefore the mine is closed post Hon'ble Supreme Court order dated 16.05.2014. The PP submitted the traffic study for Feasibility of Mineral Transportation in Joda-Barbil, Odisha was carried out by Central Road Research Institute (CRRI), New Delhi during 2013-14 and the report was given in Aug – 2014. However, the report does not have any authentication from CRRI. The Pre-feasibility of Alternative transport system such as dedicated Railway Siding /Conveyor Belt System/Road Transport for transportation of mineral from their mine to nearby existing railway siding was also carried out by "M/s a'XYKno Infrastructure Pvt. Ltd" during the year 2012. After the detailed deliberations, the Committee was of the view that reports submitted by the PP were still vague and not specific to the mine lease and were not authenticated by the Organization claimed by the PP. The State Government was also not consulted while preparing the Report.

The Committee was of the view that the PP should resubmit the Report with authentic information in consultation with the State Government. In addition, it may also be ascertained from the State Government whether any order for determination of Mining Lease/rejection of Mining Lease, if any, has been passed by the State Govt. in respect of this mine, post Supreme Court order dated 16.05.2014. The proposal may be brought back on submission of the above information.

The PP vide letter dated 20.04.2015 submitted the following:

- i. Extract of the CRRI report & Letter from CRRI which is self-explanatory. This report is prepared by CRRI in consultation with state Govt., Odisha & NHAI.
- ii. Letter from NHAI expressing their views on Nuagaon traffic study report conducted by CRRI vide letter No. NHAI/11012/7/RO (CRRI/2012/TIU/KJR/7092 dated 13.3.2015).
- iii. Authenticated report by a'XYKno Infrastructure Pvt. Ltd along with accreditation letter by the South East Central Railway vide letter No. Engg/G-2/Apvd.Cons/AXYKNO/04 dated 13.08.2013 and West Central Railway vide its letter no. W-HQ/WG/Apvd-List/Consultant/a'XYKno infrastructure dated 25.09.2013.

- iv. Letter from South Eastern Railway (SER) expressing their inability to provide any new sidings taking off from Jaroli or between Barbil and Bolanikhadan vide Itr no AS/60/34Pt-XI dtd 25.02.2014. They have also conveyed that stacking / storing of mineral in the jaroli railway sidings is not allowed vide their letter dated 2nd April 2014.
- v. The validity of the mining lease of Nuagaon Iron Ore Mines of M/s KJS Ahluwalia has been extended up to 31.03.2020 vide letter No. 3245/S&M, Bhubaneswar dated 18th April 2015 received from Department of Steel and Mines, Govt. of Odisha. The letter quotes that *"The Government have been pleased to decide to extend the validity period of mining lease u/s 8A (6) of the M&M (D&R) Act, 1957, as amended by the MMDR Amendment Act, 2015 from 04.03.1999 to 31.03.2020"*.

Based on the information furnished and presentation made by the Project Proponent and discussions held, the Committee **recommended** the proposal for amendment of Environmental Clearance condition item V.

Agenda item no. 3 with the permission of the Chair

(3.1).River Bed Mining Project from River Banas with Production Capacity of 7.2 million TPA (ROM) of Bajri by M/s. S.R. Associates, located at near Villages: Amlī, Banthali, Jalseena, Jaleri, Jagatya, Nandpura, Rajmahal, Satwara, Santhali; Tehsil- Deoli; District: Tonk (Rajasthan) (1667.78ha) (Consultant: JM EnviroNet Pvt. Ltd., Haryana)-Reconsideration of EC

The proposal of M/s. S.R. Associates is for River Bed Mining Project from River Banas with Production Capacity of 7.2 million TPA (ROM) of Bajri. The mining lease area is located at Village(s) Amlī, Banthali, Jalseena, Jaleri, Jagatya, Nandpura, Rajmahal, Satwara, Santhali, Tehsil: Deoli, District: Tonk (Rajasthan).

The Proposal was earlier considered in the EAC meeting held during December 10-11, 2014 wherein the Committee decided that the Proposal be deferred and that the same be re-considered without calling the PP after receipt of the following information/clarifications:-

- (i) The Committee has observed that Public made representation with regard to Water management, Socio- economic development, Employment, Transportation, pollution, damage of fertile land, water level degradation, fluoride concentration in water; and Time- bound Action Plan along with the budgetary allocation on the issues raised during the Public Hearing. In view of the above, the Committee was of the view that the PP has to make a proper Action Plan on the issues raised during the PH along with budgetary provisions and SPCB may be requested to submit all hard copies of the Representations received regarding the Project;

BY FAX

(FAX No.-0712 2236999/ 2245338)



दक्षिण पूर्व रेलवे
South Eastern Railway
Office of the
Chief Operations Manager
11, Garden Reach Road,
Kolkata- 700043.

संख्या /No.: AS/60/ 34 Pt.- XI

दिनांक / Dated : 25.02.2014.

सेवा में

Sri. Jayanta S. Ukey,
Sr. Leader- Infrastructure,
M/s. a'XYKno Infrastructure Pvt. Limited,
A'XYKno Financial Centre, Level-3,
Leela Vista, Balaji Nagar Square, WHC Road,
Nagpur, Maharashtra- 440010.

Dear Sir,

विषय/Sub :- Request for a private siding from Nuagaon Iron ore
Mines either to Bolani Station or Juruli Station in
CKP division.
संदर्भ/Ref:- Your letter No.- AXY/SER/2013-14/6376 dated
17/02/2014.

Please refer to your above quoted letter. As per paper notification dated 29.01.2014 5 (five) station of South Easter Railway i.e. Patasahi, Champajharan, Lathikata, Manoharpur & Jaraikela has been identified for construction of Iron Ore loading siding on private land.

As such your request for construction of Iron ore loading siding between Bolani and Barbil station or Juruli station cannot be accepted.

Thanking you,

Yours Faithfully,

(S.K. Banerjee)

वरिष्ठ परिचालन प्रबंधक (परियोजना)
Sr. Transportation Manager (Proj)
for Chief Traffic Planning Manager

SE railway

To
The General Manager,
Nuagaon Iron Ore Mines,
KJS Ahluwalia.

Station Manager,
Jaroli Railway Station

Sub: Request for Storing/Stacking of Iron Ore near Jaroli Railway Siding(Public)
transported through conveyor from Nuagaon Iron Ore mines

REF: Your letter no-NIOM-KJS/SER/2014/488 of dtd.02nd Mar'14

Dear Sir,

In reference to your above letter, I am to inform that as per Rate Circular No.21 of 2007 issued by Railway Board storing/stacking of minerals is not allowed inside the premises under the jurisdiction of Jaroli Railway Siding.

As such your request for storing/stacking of I/Ore within Jaroli Railway Siding cannot be entertained and is returned herewith.

Thanking You.
Sincerely Yours.


02/4/14
स्टेशन प्रबंधक
Station Manager
द० पू० रेलवे, जरोली
S. E. Rly, Jarolli



KAMALJEET SINGH AHLUWALIA

Mines Owner & Exporter

Office : P.B. No. 3, In front of MMTC Weigh Bridge, At/Po : Barbil -758035, Dist. : Keonjhar, Orissa, India
Ph. : 06767-275348, 275659, Telefax : 06767-276392, E-mail : kjsahluwalia@rediffmail.com

Ref. No. NIOM-KJS/MoEF/2013/

Dated: 8th September 2013

The Director,
Ministry of Environment & Forest,
I.A. Division II (M),
Paryavaran Bhavan, CGO Complex,
Lodi Road, New Delhi- 110003

18/9/13

श्री. क. अ. अहलुवालिया द्वारा भेजा गया
Received By C.R. Section
प्रमाणित किया गया है
Ministry of Environment & Forest
पार्यावरण/वनीय/संरक्षण विभाग
श्री. क. अ. अहलुवालिया, लोदी रोड
CGO Complex, Lodi Road
नई दिल्ली/नया दिल्ली - 110003

Sub: Expansion of Nuagaon Iron Ore Mining project and Iron Ore beneficiation plant of M/s Kamaljeet Singh Ahluwalia located in village(s) Nuagaon, Guali, Topadihi, Barapada and Katasahi, Tehsil Barbil, District keonjhar, Orissa – **Environment Clearance Amendment regarding**

Ref: 1. **Environmental Clearance letter no. J-11015/1156/2007-IA.II (M) dated 2nd February 2010.**
2. **Environmental Clearance letter no. J-11015/317/2009-IA.II (M) dated 16th February 2012.**

Madam,

With reference to the above subject, we would like to draw your kind attention towards the Environmental Clearance awarded to "Nuagaon Iron Ore Mining project and Iron ore Beneficiation Plant of M/s Kamaljeet Singh Ahluwalia located in village(s) Nuagaon, Guali, Topadihi, Barapada and Katasahi, Tehsil Barbil, District keonjhar, Orissa".

1. The project got environment clearance for expansion of 5.62 MTPA iron ore production vide letter no. **J-11015/1156/2007-IA.II (M) dated 2nd February 2010** with the specific condition no. V, says that "**Alternative transport system such as dedicated Railway siding for transportation of mineral from their mine shall be studied and put in place at the earliest but not later than five years. No mineral transportation by road shall be permitted beyond 5 years**"
2. The project got environment clearance for beneficiation plant (within the lease) vide letter no. **J-11015/317/2009-IA.II (M) dated 16th February 2012** with the specific condition no. viii, says that "**Mineral transportation after the 5th year shall be carried out only by rail**".

With specific to the above, the lessee has conducted detailed study on "**alternative transportation system**" through aXYNO Infrastructure Pvt. Ltd, Nagpur and "**Existing transportation facility traffic study**" by Creative Engineering Consultant, Chennai.

From this it may be concluded that alternative transportation systems i.e. "establishment of own private railway siding within the lease" for mineral transportation is techno-economically not viable. In the mean time the existing public railway sidings connected through NH-215 is now upgraded to 4 lanes, is adequate enough to facilitate the transportation of mineral from the mines.

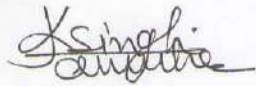
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KAMALJEET SINGH AHLUWALIA
Continuation Sheet.....

Keeping in view of the above facts, you are kindly requested for necessary amendment of the said granted environmental clearance in favour of above Mining & Beneficiation project in respect to the specific condition no 'v' & 'viii' respectively, by allowing us to transport mineral from the mines through existing road network/public railway sidings.

Thanking you

Yours faithfully,
for Nuagaon Iron ore Mines, M/s Kamaljeet Singh Ahluwalia



Lessee

Encls: As above

road with proper drainage system and green belt development along the roads and also construction of road minimum 300 m inside the mine should be done. This should be done within one year for existing mines and new mine should have since beginning. The concerned departments should extend full support; wherever the land does not belong to the respective mine lease holders. The Department of Steel & Mines, Govt. of Odisha should ensure the compliance and should not issue the Mining Permits, if mine lease holder has not constructed proper cement concrete road as suggested above.

- 7) In view of high dust pollution and noise generation due to road transport, it is proposed to regulate/guide the movement of iron and manganese ore material based on the EC capacity of the mines. Accordingly, ore transport mode has been suggested, as given below in Table.

Table : EC Capacity based Suggested Ore Transport Mode (SOTM)

Code	EC	Suggested Ore Transport Mode
SOTM 1	≥ 5 MTPA	100% by private railway siding or conveyor belt up to public railway siding or pipeline for captive mines and 70% for non-captive mines
SOTM 2	Between 3 and <5 MTPA	Minimum 70% by public railway siding, through conveyor belt and maximum 30% by road - direct to destination or other public railway siding or above option
SOTM 3	Between 1 and <3 MTPA	Minimum 70% by public railway siding and maximum 30% by road - direct to destination or by other public railway siding or above options
SOTM 4	<1 MTPA	100 % by 10/17 Ton Trucks or above options

It is mentioned by State Govt. of Odisha that currently about 45% of the iron ore is despatched using rail network and progressively it will be increased to about 60% by rail/slurry over a period of 5 years, taking into account time required to set up more railway sidings.

In view of present ore transport practices and practical limitations, all the existing mines should ensure adoption of SOTM within next 5 years. New mines or mines seeking expansion should incorporate provision of SOTM in the beginning itself, and should have system in place within next 5 years. However, the State Govt. of Odisha shall ensure dust free roads in mining areas wherever the road transportation of mineral is involved. The road shoulders shall be paved with fence besides compliance with IRC guidelines. All the roads should have proper drainage system and apart from paving of entire carriage width the remaining right of way should have native plantation (dust capturing species). Further, regular maintenance should also be ensured by the Govt. of Odisha.

Transportation of iron & manganese ore through river (jetty) to nearest Sea port (Sea cargo option) may be explored or connecting Sea ports with Railway network from the mines to be improved further so that burden on existing road and rail network and also pollution thereof can be minimized. Progress on development of dust free roads, implementation of SOTM, increased use of existing rail network, development of additional railway network/conveyor belt/ pipelines etc. shall be submitted periodically to MoEF&CC.

Responsibility: Department of Steel & Mines, Govt. of Odisha; Time Period: 5 Years for developing railway/ conveyor belt facilities

- 8) Development of parking plazas for trucks with proper basic amenities/ facilities should be done inside mine. This should be done within one year for existing mines and new mines should have since beginning. Small capacity mines (in terms of lease area or production) not having enough space within the mine lease areas should develop parking plaza at a common place within the region with requisite facilities. Responsibility: Individual Mine Lease Holders; Time Period: 1 Year
- 9) Construction of NH 215 as minimum 4 lane road with proper drainage system and plantation and subsequent regular maintenance of the road as per IRC guidelines. Construction of other mineral carrying roads with proper width and drainage system along with road side plantation to be carried out. Responsibility: Department of Steel & Mines with PWD / NHAI Time Period: 2 Years.
- 10) Regular vacuum cleaning of all mineral carrying roads aiming at "Zero Dust Re-suspension" may be considered. Responsibility: PWD / NHAI/ Mine Lease Holders; Time Period: 3 months for existing roads.
- 11) Expansion of existing mines and new mines should be considered after conducting recent EIA Study (as per the provisions of EIA Notification 2006, as amended time to time) with proper justification on demand scenario for iron ore requirement and availability of pollution free transport network in the region. Responsibility: IBM, Department of Steel & Mines and MoEF&CC, New Delhi.
- 12) **Mine-wise Allocation of Annual Production:** In case the total requirement of iron ore exceeds the suggested limit for that year, permission for annual production by an individual mine may be decided depending on approved EC capacity (for total actual dispatch) and actual production rate of individual mine during last year or any other criteria set by the State Govt., i.e. Dept. of Steel & Mines. Department of Steel and Mines in consultation with Indian Bureau of Mines-RO should prepare in advance mine-wise annual production scenario as suggested in Table, so that demand for iron ore can be anticipated, and actual production/dispatch does not exceed the suggested annual production.

Table: Allocation of Production to Different Mines for 5 Years (as per approved Mining Plan)

	EC	Suggested Annual Production (MT)
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PROCEEDINGS OF THE FIRST MEETING OF THE COMMITTEE TO OVERSEE IMPLEMENTATION OF THE RECOMMENDATIONS OF NEERI REPORT HELD ON DATED 21.06.2018 AT 03.30 P.M. UNDER THE CHAIRMANSHIP OF THE CHIEF SECRETARY, ODISHA IN 2ND FLOOR CONFERENCE HALL OF THE SECRETARIAT.

The first meeting of the Committee to oversee the implementation of the recommendations of the NEERI report was held on dated 21.6.2018 under the Chairmanship of the Chief Secretary.

The list of the members attended the meeting is at Annexure-'A'.

At the outset, the Principal Secretary, Steel & Mines Department welcomed the Chairman and all other members of the committee and briefed about the NEERI report. This was followed by detailed power point presentation on the NEERI report by the Director of Mines. It was noted that the report of the NEERI has been approved by the MoEF, Government of India and its implementation has to be ensured by all agencies concerned.

After threadbare discussion and deliberations on each of the recommendations of NEERI report, the following decisions were taken:-

1. Sustainable Annual Production (SAP) as suggested in the report of NEERI, may be worked out lease wise in advance for each year by the Director of Mines and incorporated in the I3MS so as to ensure that the limits are not exceeded by any lessee.

[Steel & Mines Department / DoM]

2. Continuous Ambient Air Quality Monitoring System of different environmental quality parameters as per EC & CTE / CTO conditions has already been put in place in respect of 5 MTPA mines. This monitoring be expanded to include 3 MTPA and above mines as recommended by the NEERI. SPCB was asked to ensure its implementation.

[Forest & Environment Department/ SPCB]

3. On other recommendations viz construction of cement concrete road from mine to the main road, Suggested Ore Transport Mode (SOTM) and

parking plazas etc, it was decided to form District Level Committees under the Chairmanship of District Collectors to decide on the modalities for implementation. Constraints, if any, in implementation of such recommendations may be reported by the DLC's to the Steel & Mines Department.

[Steel & Mines Department/ DoM/ Collectors concerned]

4. Tarpaulin cover may be ensured in all mineral carrying vehicles to prevent re-suspension of dust. As regards vacuum cleaning of the roads, the matter may be examined with regard to its practicability for implementation by the DLC's and agencies concerned.

[Steel & Mines/ Commerce & Transport/ Works Department/ DLC's]

5. Master plan for development of road network in Joda-Barbil and Koira sectors may be prepared by the Works Department and funding of the same from different sources may be planned.

[Works Department]

6. The recommendations of NEERI with regard to construction/ maintenance of Dust & Pothole free roads including expansion of NH-215 to four laning may be forwarded to the National Highway Authority of India (NHAI) and also Ministry of Surface Transport, Government of India through Works Department for appropriate action.

[Works Department]

7. The recommendation with regard to transportation through river (Jetty) to nearest sea port (Sea Cargo option) may be forwarded to the Government of India for appropriate action through the Commerce & Transport Department.

[Commerce & Transport Department]

8. Recommendations with regard to new railway lines and railway sidings may be forwarded to the Ministry of Railway/ Railway Board through Commerce & Transport Department for appropriate action.

[Commerce & Transport Department]

9. A sub-committee comprising the Additional Chief Secretary, Forest & Environment Department (Chairman), Secretary, Steel & Mines Department, Member Secretary, SPCB, representatives of all the Departments and Director of Mines (convener) concerned including NHAI, Railways and IMMT may be constituted to oversee the implementation of various recommendations of NEERI report. This sub-committee may meet once in two months. The State Level Committee to oversee the implementation of recommendation of NEERI report may meet once in six months or as required.

[Steel & Mines Department / Forest & Environment Department]

10. The Steel & Mines Department may prepare a matrix of various recommendations of NEERI report along with list of agencies responsible for implementation thereof and monitor the status of implementation on a regular basis.

[Steel & Mines Department]

The meeting ended with vote of thanks to the Chair and other participants.

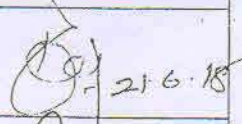
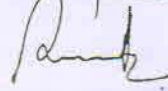
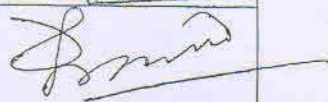
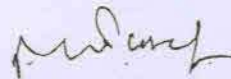
The minutes are issued with approval of the Chief Secretary.


Additional Secretary

Annexure A

MEMBERS PRESENT IN THE MEETING OF THE COMMITTEE TO OVERSEE IMPLEMENTATION OF THE RECOMMENDATIONS OF NEERI REPORT HELD UNDER THE CHAIRMANSHIP OF THE CHIEF SECRETARY, ODISHA ON 21.06.2018 AT 03.30 P.M. IN THE 2ND FLOOR CONFERENCE HALL.

SL No	Name	Designation	Signature
1			
2	T. K. Pandey	Pr. Secy, Finance	Pandey
3	R K Sharma,	Pr. Secy, S&M Dept	Ryo
4	Deegak Mohanty	Director of Mines, Odisha	Mohanty
5	Dr. Subalata Swain	PCET & HoFP	Swain
6	N. K. Pradhan	Secy. W&S	odh
7	S. K. Goyal	Scientist & Head NEERI, Delhi	Goyal
8	G. C. Saha	Deputy Controller of Mines, B&M	Saha
9	Ranjan Kumar Das	Collector, Jajpur	Das
10	Ashish Thakore, IAS	DM and Collector, Keonjhar	21/6/18
11	Surendra Kumar Meena IAS	Collector Sundergarh	21/6/18
12	VINEET BHARDWAJ	Collector Mayurbhanj	21/6/18
13	K. S. Pradnya	ED, OMC	21/06/18

SL No	Name	Designation	Signature
14	R. K. Dey.	APCCF Central MOEF & CC	 21.6.18
15	R. Vineel Krishna.	MD, OMC	
16	Debdutta Behera	Spl Secy, F & E HS, SP CB.	
17	Harij Mishra	Spl Secy CTD Dept.	
18	J. Prasad	DY. DG GSI	
19	M. K. Patel	Director HSE	
20	S. U. C. Bose	S & M	
21			
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JOINT VENTURE AGREEMENT

BETWEEN

GOVERNMENT OF ODISHA

AND

MINISTRY OF RAILWAYS

DATED JUNE 14, 2016





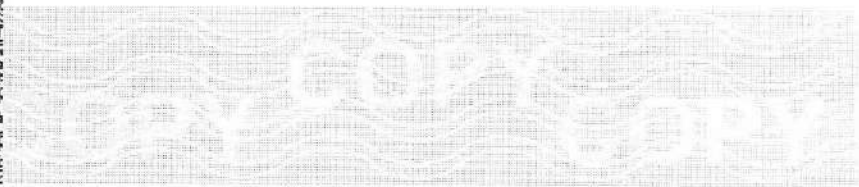
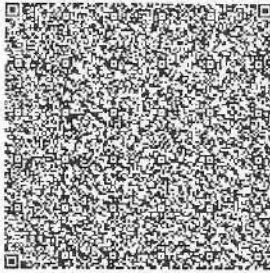
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INDIA NON JUDICIAL

Government of National Capital Territory of Delhi

e-Stamp

Certificate No.	: IN-DL594606188453420
Certificate Issued Date	: 14-Jun-2016 11:06 AM
Account Reference	: IMPACC (IV)/ dl903403/ DELHI/ DL-DLH
Unique Doc. Reference	: SUBIN-DL903403182636970550070
Purchased by	: MINISTRY OF RAILWAYS
Description of Document	: Article 5 General Agreement
Property Description	: Not Applicable
Consideration Price (Rs.)	: 0 (Zero)
First Party	: MINISTRY OF RAILWAYS
Second Party	: GOVT OF ODISHA
Stamp Duty Paid By	: MINISTRY OF RAILWAYS
Stamp Duty Amount(Rs.)	: 500 (Five Hundred only)



.....Please write or type below this line.....

This stamp paper forms an integral part of the Joint Venture Agreement dated June 14, 2016 between ministry of railways and the government of Odisha.

[Signature]

S. Rastogi

Statutory Alert:

1. The authenticity of this Stamp Certificate should be verified at "www.sholestamp.com". Any discrepancy in the details on this Certificate and as available on the website renders it invalid.
2. The onus of checking the legitimacy is on the users of the certificate.
3. In case of any discrepancy please inform the Competent Authority.

JOINT VENTURE AGREEMENT

This joint venture agreement ("**Agreement**") is made on this 14th day of June, 2016 ("**Effective Date**")

BETWEEN:

- (A) **THE PRESIDENT OF INDIA**, represented by Executive Director (Works), Ministry of Railways, Government of India, having its office at Rail Bhawan, New Delhi-110001, or a nominee/representative of Ministry of Railways (hereinafter referred to as the "**MOR**", which expression, unless repugnant to the context or otherwise, will include its successors and permitted assigns) of the **FIRST PART**;

AND

- (B) **GOVERNOR OF THE STATE OF ODISHA**, acting through the Commissioner cum Secretary, Government of Odisha, or a nominee/representative of Government of Odisha (hereinafter referred to as the "**GOO**", which expression, unless repugnant to the context or otherwise, will include its successors and permitted assigns) of the **SECOND PART**.

MOR and GOO are collectively referred to as the "**Parties**" and individually as a "**Party**".

WHEREAS:

- A. The Parties agree that there is a need for development of rail infrastructure for critical connectivity and capacity enhancement in the state of Odisha. Accordingly, the Parties wish to identify, develop and implement such projects that are important for critical connectivity and/or capacity enhancement.
- B. With the aforementioned objective, the Parties have executed a memorandum of understanding dated November 4, 2015 ("**MOU**"). In terms of the MOU, the Parties intend to incorporate a public limited company, with its headquarter/ registered office in Bhubaneswar ("**JVC**"/ "**Company**"). The JVC will undertake the development of Viable (*as defined below*) railway projects (by itself or through a subsidiary/ special purpose vehicles) including projects with viability gap funding.
- C. It is the understanding between the Parties that their rights and obligations in regard to their relationship with and in the JVC including the operation and management of the JVC will be governed in accordance with the terms and conditions of this Agreement.

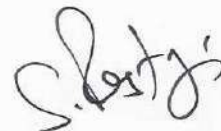
1. DEFINITIONS & INTERPRETATIONS

1.1 Definitions

In this Agreement, except to the extent that the subject or context otherwise requires, the following expressions shall have the following meanings:

"**Act**" means the (Indian) Companies Act, 1956 or the Indian Companies Act, 2013 with the rules made thereunder (to the extent applicable), or any statutory modification or re-enactment thereof.

"**Agreement**" means this Agreement as from time to time amended, supplemented or replaced or otherwise modified and includes any document, which amends, supplements, replaces or otherwise modifies this Agreement.



"**Apex Committee**" has the meaning ascribed to it in Article 5.7(c).

"**Applicable Laws**" mean all applicable laws, by-laws, rules, regulations, orders, ordinances, protocols, codes, guidelines, policies, notices, directions, judgments, decrees or other requirements or official directive of any Governmental Authority or Person acting under the authority of any Governmental Authority, whether in effect on the date of this Agreement or thereafter.

"**Arbitrator**" has the meaning ascribed to it in Article 14.

"**Board**" or "**Board of Directors**" means the Board Directors of the Company.

"**Business Day**" means any day other than a Saturday, a Sunday, or a day on which banks in Odisha are authorised or required by law to be closed.

"**Closing Date**" means the date on which MOR subscribes to the MOR Securities in accordance with the provisions of this Agreement.

"**Deed of Adherence**" means the deed of adherence, the format of which is set out in **Schedule I (Deed of Adherence)**.

"**Dispute**" has the meaning ascribed to it in Article 14.

"**Encumbrance**" means any encumbrance including, without limitation, any claim, mortgage, pledge, charge (whether fixed or floating), hypothecation, lien, assignment, deposit by way of security, bill of sale, beneficial ownership (including usufruct and similar entitlements), deed of trust, title retention, security interest, public right, common right, any provisional or executorial attachment and any other interest held by a third party or any consent, approval or filing requirement or any other interest or claim of any Governmental Authority or other encumbrance of any kind securing, or conferring any priority of payment in respect of, any obligation of any Person, including any right granted by a transaction which, in legal terms, is not the granting of security but which has an economic or financial effect similar to the granting of security under Applicable Law, or a contract to give or refrain from giving any of the foregoing, including any restriction imposed under Applicable Law on the Transferability of the Equity Shares; and any adverse claim as to title, possession or use.

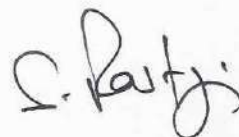
"**Financial Year**" means a period of twelve months commencing from 1st April of any calendar year and ending on the 31st March of the next calendar year.

"**Fundamental Issues**" means such issues or matters in respect of which special voting rights are provided for under this Agreement in terms of Article 6 hereof.

"**GOO Securities**" means 5,10,00,000 (Five Crores Ten lakhs) Equity Shares of face value Rs. 10 (Rupees Ten) each, representing 51% (fifty one percent) of the issued and paid up equity share capital on the Closing Date.

"**GOO Subscription Consideration**" means an amount of Rs. 51,00,00,000 (Rupees Fifty One Crores) to be paid by GOO to the JVC towards subscription to the GOO Securities.

"**Governmental Authorities**" means any government authority, statutory authority, government department, agency, commission, board, tribunal or court or other law, rule or regulation making entity having or purporting to have jurisdiction on behalf of the Republic of India or under any other applicable jurisdiction.



"Indian GAAP" means generally accepted accounting principles consistently applied in India from time to time.

"IPO" means the initial public offering of the Shares either through a primary offering (i.e. an issue by the Company of additional Shares) or a secondary offering (i.e. a sale, by way of offer for sale of Shares held by one or more Shareholders) or both, which would (i) comply with all applicable laws, including without limitation, the rules and regulations of the Securities Exchange Board of India and the relevant stock exchange, (ii) result in the Company and/or its Shares being listed on one or more recognised stock exchanges.

"MOR Securities" means 4,90,00,000 (Four Crores Ninety Lakh) Equity Shares of face value of Rs. 10 (Rupees Ten) each to be subscribed by MOR in accordance with the provisions of this Agreement.

"MOR Subscription Consideration" means an amount of Rs. 49,00,00,000 (Rupees Forty Nine Crores) to be paid by MOR to the JVC towards subscription to the MOR Securities.

"Person" means any individual, corporation, partnership firm, limited liability company, joint venture, association or trust or any other entity or organisation and may include a Party hereto.

"Project SPV" has the meaning ascribed to it in Article 7.1.

"Shares" means the equity shares of the Company issued from time to time.

"Shareholder" means the holder of Shares for the time being and **"Shareholders"** means collectively all those who hold Shares.

"Super Majority Resolution" in relation to a Fundamental Issue means a special resolution as defined in the Act in the case of a general meeting of the Company, and in the case of a meeting of the Board, a resolution on which all Directors present and representing each of the parties to this Agreement and being entitled to vote on such matter, vote unanimously in favour of the resolution with respect to such Fundamental Issue.

"Third Party" means any Person other than the Parties.

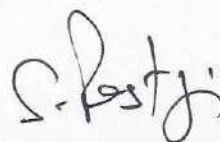
"Transfer" in relation to Shares and/or other securities of the Company, means the sale, assignment, transfer, alienation of, or the grant of any option or right to purchase or otherwise acquire Shares of the Company.

"Viable" means (a project) having an internal rate of return of not less than 12% (twelve percent), or as may be determined by the Board from time to time.

1.2 Interpretation

In this Agreement, unless the context otherwise requires:

- (a) the words importing singular shall include plural and vice versa, and words denoting natural persons shall include partnerships, firms, companies, corporations, joint ventures, trusts, associations, organisations or other entities (whether or not having a separate legal entity);



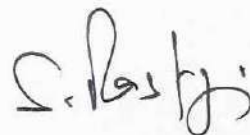
- (b) headings are inserted for convenience and identification only and are not intended to describe, interpret, define or limit the scope, extent or intent of this Agreement or any provision hereof in any manner whatsoever;
- (c) the words "include" and "including" are to be construed without limitation;
- (d) any reference to day, month or year shall mean a reference to a calendar day, calendar month or calendar year respectively;
- (e) any reference at any time to any agreement, deed, instrument, license or document of any description shall be construed as reference to that agreement, deed, instrument, license or other document as amended, varied, supplemented, modified or suspended at the time of such reference;
- (f) references to recitals, Articles, sub-articles or Schedules in this Agreement shall, except where the context otherwise requires, be deemed to be references to recitals, Articles, sub-articles and Schedules of or to this Agreement;
- (g) any agreement, consent, approval, authorisation, notice, communication, information or report required under or pursuant to this Agreement from or by any Party shall be valid and effectual only if it is in writing under the hands of duly authorised representative of such Party in his behalf and not otherwise;
- (h) any reference to any period commencing "from" a specified day or date and "till" or "until" a specified day or date shall induce both such days or dates; and
- (i) this Agreement is a joint product of the Parties and any rule of statutory interpretation which involves interpreting agreements against a Party primarily responsible for drafting the Agreement, will not be applicable to this Agreement.

2. CAPITAL STRUCTURE, SHAREHOLDING AND SHARE SUBSCRIPTION

2.1 Scope of the JVC

Subject to the Applicable Law, the activities of the JVC will, amongst others, include the following:

- (a) development, financing and implementation of Viable railway projects and/or projects which may require viability gap funding that are important for critical connectivity/ capacity enhancement, as agreed by the Parties;
- (b) undertaking surveys, preparation of Detailed Project Report (DPR) to examine the Viability of the railway projects;
- (c) processing for sanctioning of the railway projects (identified by the Board or the Parties);
- (d) incorporation and funding of subsidiaries/special purpose vehicles for undertaking railway projects; and
- (e) undertaking all such actions not specifically mentioned above, that may be required to give effect to the intent of the Parties, as set out in the Agreement.

(the activities set out in (a) and (e) above are collectively referred to as "Business").

The Board may alter the scope of the functions of the JVC.

2.2 Incorporation of the JVC

- (a) The GOO will incorporate the JVC as a public company under the Act for carrying on the Business. Upon the incorporation of the JVC, the JVC will forthwith execute the Deed of Adherence, agreeing to be bound by the terms of this Agreement. The initial authorized share capital of the JVC will be Rs. 100,00,00,000 (Rupees One Hundred Crore only), divided into 10,00,00,000 (Ten Crore) Equity Shares. The initial paid up share capital of the JVC will be Rs. 51,00,00,000 (Rupees Fifty One Crores only), divided into 5,10,00,000 (Five Crores Ten lakhs) Equity Shares. The initial subscribers to the memorandum of association of the JVC will be GOO and the nominees of GOO for holding Equity Shares in the JVC.
- (b) The JVC will be incorporated in Odisha, with its registered office at Bhubaneswar with the name Odisha Rail Infrastructure Development Company or such other name as the relevant Registrar of Companies may approve.
- (c) The Parties agree to act, and exercise their respective voting rights as Shareholders in the JVC and through their respective nominated Directors at meetings of the Board, so as to ensure the proper implementation of the terms and conditions set out in this Agreement.
- (d) The Parties agree that their mutual rights and obligations in this joint venture including operation, control and management of the JVC will be interpreted, acted upon and governed in accordance with the terms and conditions of this Agreement.

2.3 Territorial Scope

The JVC will carry on the Business within the territory of India.

- 2.4 The MOR hereby agrees to subscribe to, and the Company agrees, and the GOO agrees to cause the Company, to issue, allot and deliver to MOR, on the Closing Date, the MOR Securities, simultaneously with the receipt of the MOR Subscription Consideration, free and clear of all Encumbrances and together with all rights, title, interest and benefits appertaining thereto.
- 2.5 GOO hereby agrees to subscribe to, and the Company agrees to issue, allot and deliver to GOO, the GOO Securities, simultaneously with the receipt of the GOO Subscription Consideration, free and clear of all Encumbrances and together with all rights, title, interest and benefits appertaining thereto.
- 2.6 Upon subscription to equity shares by the Parties as aforementioned, the Company shall allot the Shares as soon as possible and in any case not later than 30 days after realisation of the subscription amount, and enter the name of each of the Parties in its register of members, as a holder of such Shares, and deliver to each of the Parties, or as each of them shall direct, the share certificates in respect thereof. The Company shall furnish to the Parties the satisfactory evidence, that all corporate action in connection with and necessary for the valid issue and allotment of the Shares including the passing of resolutions of the Shareholders



and the Board of Directors filing return of allotment with the Registrar of Companies and other formalities have been duly complied with. Pending allotment of Shares to the Parties, the Company shall retain and hold the subscription amount received from the Parties in a separate bank account in trust for the Parties.

- 2.7 Upon issuance of MOR Securities and GOO Securities on the Closing Date, the shareholding pattern of the Company will be as follows:

Name of the Shareholder	No. of Equity Shares of Face Value Rs.10/- each	Subscription Amount (in Rs.)	Post Subscription paid up equity capital (in Rs.)	Post Subscription Share-holding
MOR	4,90,00,000	49,00,00,000	49,00,00,000	49%
GOO	5,10,00,000	51,00,00,000	51,00,00,000	51%

2.8 **Parties Shares to Rank Pari Passu**

The Shares issued, subscribed and allotted to the Parties in accordance with Articles 2.4 and 2.5 above, will rank pari-passu in all aspects and be identical with all Shares previously issued, subscribed and allotted with reference to all rights and benefits including but not limited to voting rights, dividends, stock splits, bonus issuance and rights issuance.

3. **SHAREHOLDING RIGHTS**

3.1 **No Pledging of Shares**

The Parties shall not pledge, mortgage, hypothecate, charge or otherwise encumber or grant any security interests of any kind whatsoever on any of the Shares nor otherwise use such Shares as collateral security for any purpose whatsoever which could result in an involuntary Transfer of such Shares in favour of any Person, including but not limited to, any lenders of the Company.

3.2 **Pre-emption Rights**

After the issue and allotment of Shares pursuant to Articles 2.4 and 2.5 of this Agreement, except in accordance with the provisions of the Act, the Company shall issue and allot additional Shares, to the existing Shareholders in proportion to their shareholding as mentioned in Article 2.7. Such offer to the existing Shareholders shall be in accordance with the provisions of the Act.

3.3 **Lock-in Period**

None of the Parties shall Transfer any part of the Shares acquired by them pursuant to the provisions of this Agreement for a period of 5 (five) years from the Closing Date.

4. **SHAREHOLDER'S RIGHT TO SELL AND TRANSFER SHARES**

- 4.1 Subject to the provisions of this Agreement relating to the lock-in period:

- (a) In case MOR desires to dilute its shareholding in the Company, then GOO shall have the right of first refusal to acquire the Shares proposed to be sold by MOR and/or to



require MOR to sell or otherwise Transfer such Shares to a nominee of GOO as the Transferee;

- (b) In case GOO desires to dilute its shareholding in the Company, then MOR shall have the right of first refusal to acquire the Shares proposed to be sold by GOO and/or to require GOO, to sell or otherwise Transfer such Shares to a nominee of MOR as the Transferee;

4.2 The price at which the Shares shall be sold, transferred or acquired by any of the Parties shall be at a price as may be mutually agreed to by the transacting Persons.

4.3 Subject to the provisions of this Agreement, no Transfer of any Shares shall be made to any Third Party unless such Third Party shall have agreed in writing to be bound by the provisions of this Agreement by executing the Deed of Adherence.

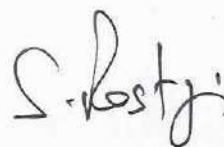
5. BOARD OF DIRECTORS

5.1 Constitution, Appointment and Nomination

- (a) Subject to the terms of this Agreement and the Memorandum and Articles of Association, the Board will be responsible for the overall direction and management of the Company, its Business, operations and affairs and the scope of each of them.
- (b) There will be a maximum of 12 Directors to the Board. Unless otherwise agreed by and amongst the Parties to this Agreement, the number of Directors of each Party will be in proportion to its investments in equity share capital and subordinated debt.
- (c) The Board will consist of a maximum of 10 (ten) Directors. On the Closing Date, the Board will be constituted as follows:
- (i) one Chairman of the Board;
 - (ii) one managing director (a whole-time director of the JVC) who will be selected by a committee comprising of the representatives of MOR and GOO in equal numbers;
 - (iii) 2 (two) whole time directors with each of GOO and MOR having the right to appoint one whole time director;
 - (iv) 6 (six) non-whole time directors: (A) 2 (two) non-whole time directors being nominated by each of GOO and MOR; and (B) 2 (two) independent directors drawn from private or public sector or educational institutions who will be experts in their respective fields.
- (d) The Directors will not be required to hold any qualification shares in the Company.

5.2 Appointment/Removal of Directors

The Shareholders who have the right to nominate and appoint the Directors to the Board shall also have the right to remove and replace such Directors.



5.3 Term of the Directors

Subject to the provisions of the Act, the Directors of the Company shall unless otherwise provided herein, be appointed for a term of 3 (three) years or till the annual general meeting of the Company held after the lapse of the said period of 3 (three) years. Each Director shall be eligible to serve consecutive terms if re-appointed. Any vacancy created by the retirement or removal of any Director being a nominee of any of the Shareholders shall be filled by a nominee of such Shareholders unless otherwise agreed in this Agreement. The Shareholders shall exercise their voting rights and to cause their Directors on the Board to exercise their voting rights to carry out and effect the intent of the provisions of this Agreement.

5.4 Chairman

The Company shall have a non-executive Chairman, who shall be a nominee of GOO. The term of Chairman shall be co-terminus with that of his term as the Director of the Company. In case the Chairman is unavailable for a meeting, any one of the Directors present at that meeting may be elected by the Board as the Chairman for that particular meeting. The Chairman will not be entitled to any emoluments and fees.

5.5 Meetings of the Board

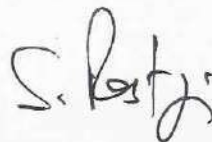
- (a) The Board shall meet at least once in every quarter, at such times and circumstances as may be required and in accordance with the provisions of the Act, for the purpose of taking decisions on all policy matters and on for determination of issues regarding the business of the Company.
- (b) The Directors may, in accordance with Applicable Law, participate in the board meetings through video-conferencing or any other audio-visual means as may be set out in the notice of the meeting.
- (c) The quorum for the meetings of the Board or any adjournment thereof shall require the presence of one third (1/3) of the Directors in office or at least 2 Directors, whichever is higher, for the time being. No such quorum shall be deemed to be complete unless at least one Director representing each of MOR and GOO is present at such meeting. In case the quorum is not present, the meeting shall be adjourned to the same day in the following week or if such day is a holiday the next Business Day thereafter. At any meeting of the Board, each Director shall have one vote.

5.6 Resolutions at Board Level and General Meeting

Subject to the provisions of Article 6 of this Agreement, all resolutions of the Board of Directors shall be adopted by simple majority and in case of equality of votes, the Chairman shall have a second or casting vote.

5.7 Committees of the Board

- (a) If the Board finds it necessary to constitute a committee or committees, the powers of such committee or committees shall be determined by the Board. The committee shall be subject to and be under the supervision of the Board.
- (b) Unless otherwise agreed to by each of the Parties of this Agreement, no quorum of the meeting of any such committees shall be deemed to be complete unless at least



1 (one) nominee each for the MOR and GOO is present at such meeting of the committee.

- (c) A committee will be formed for expediting the railway projects that will be implemented by the JVC (by itself or through a Project SPV) ("**Apex Committee**"). The Apex Committee will be constituted of the representatives of the GOO and MOR in equal proportion. The members of the Apex Committee will meet once in every two months, or such other interval to ensure that the Viable railway projects, as identified by the Board (or the Parties) are implemented in an efficient manner.

5.8 **Notices of Board Meetings**

- (a) Subject to the Provisions of the Act, the Company shall furnish to each Director not less than 7 days' notice (unless a written consent is obtained for a shorter notice), of the calling of any meetings of the Board or of any meetings of any Committee constituted by the Board, which notice shall indicate the agenda and shall promptly thereafter furnish to such Director copies of all proposals, resolutions, communications and reports prepared by the Company in connection with such meetings.
- (b) An emergency meeting of the Board may be called by giving the Directors not less than 3 days' notice in writing, unless such notice is waived by all the Directors for the time being.

5.9 **Remuneration and Key Managerial Personnel and Secondment**

Subject to the provisions of the Act, the salary and perks of the Directors of the JVC will be at par with the salary and perks of the officers of the Schedule 'A' public sector companies of Central Government. The key managerial personnel will be appointed by the Board. As per the requirements of the JVC, a Party may second its employees to the JVC after the Closing Date.

5.10 **Employees of the JVC**

The Parties agree and confirm that the employees of the JVC will not have the employer-employee relationship with the GOO (including any of its establishments, undertakings, etc.) or the MOR (including the railway administration or any of its establishments, undertakings, etc.), and, accordingly, have no right to employment in any of the foregoing by virtue of their employment with the JVC. The aforementioned understanding will be appropriately incorporated in the appointment letters/ employment agreements executed by the JVC with its employees.

It is clarified that the aforementioned will not apply to the employees of the GOO (including any of its establishments, undertakings, etc.) or the MOR (including the railway administration or any of its establishments, undertakings, etc.) who are seconded to the JVC in terms of Article 5.9, and they will continue to be associated with their principal employer (being GOO or MOR, as the case may be), as earlier.

6. **FUNDAMENTAL ISSUES**

6.1 **Super Majority Resolution at Board Level and General Meetings**

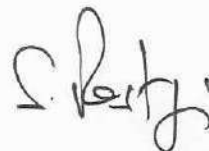


Notwithstanding the provisions of this Agreement and subject to such additional approvals as may be required by Applicable Law, any action with respect to the issues set out below (hereinafter called "**Fundamental Issues**") shall require a Super Majority Resolution of the Board of Directors or at General Meeting of Shareholders, where applicable, in favour of such resolutions:

- (i) Merger with or acquisition of any company by the Company;
- (ii) Any change in the capital structure of the Company including any fresh issue of capital (other than already envisaged herein);
- (iii) Declaration of any dividend or the distribution of any other form and return to the Shareholders of the Company;
- (iv) Any decision to take up the identified railway infrastructure project for development and/or investment, including the setting up of a new company/entity for this purpose, the terms on which the said project would be implemented and the various project contracts;
- (v) Finalisation of the terms of any debt, including subordinated debt raised from GOO and/or MOR, by the Company;
- (vi) Any proposal for the renewal or appointment of Statutory Auditors and Internal Auditors of the Company;
- (vii) Establishment of the subsidiaries and/or entering into any partnerships or joint ventures;
- (viii) Any increase or decrease in the size of the Board of Directors;
- (ix) Diversification or proposed entry into new business of activity, which falls outside the scope of its current areas of operation;
- (x) Amendment of the Memorandum and Articles of Association of the Company; and
- (xi) Any resolution to dissolve, liquidate or reorganize the Company.

7. ROLE OF SUBSIDIARIES

- 7.1 Subject to Applicable Law and consent of the Parties, the JVC may, from time to time, incorporate project specific subsidiaries ("**Project SPVs**"), if necessary, to undertake Viable railway projects identified by the Parties in consultation with each other, or the Board.
- 7.2 The Project SPVs will be incorporated as limited liability company(ies) under the Act.
- 7.3 The initial equity in the Project SPVs will be contributed by the JVC. Accordingly, the MoR and GOO will infuse equity in Project SPVs only through the JVC (and not directly), and hence, subject to Article 8 (Participation by Other Stakeholders), the Project SPVs will remain a subsidiary of the JVC unless otherwise mutually agreed between MOR and GOO.
- 7.4 All the rights of the Parties interse contained in this Agreement with respect to the governance of the JVC, will be *mutatis mutandis* available in the Project SPVs, subject to mutual agreement between the Parties. The memorandum and articles of association of the Project SPVs (as and to the extent applicable), will incorporate the provisions of the Agreement and the Memorandum and Articles of Association of the JVC. Without prejudice to the generality of the foregoing, all provisions of this Agreement relating to the Board and its meetings will *mutatis mutandis* be applicable to the proceedings, decision and action of the board of directors of the Project SPVs and the committees of the board of directors of Project SPVs.
- 7.5 However, notwithstanding the foregoing, in the event a Project SPV no longer remains a wholly owned subsidiary of the JVC (due to change in shareholding in accordance with Article 8 below), then the Project SPV will, at all times, have a nominee of the JVC on its board.

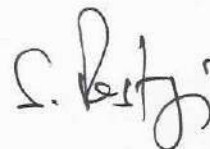


8. **PARTICIPATION BY OTHER STAKEHOLDERS**

- 8.1 Subject to the consent of the Parties, the Project SPVs may, on a need basis, and to cater to specific projects, permit equity participation by other stakeholders such as banks, public sector undertakings, ports, mines, etc. Notwithstanding the foregoing, the equity holding of the JVC in the Project SPVs will, at all times, be at least 26% (twenty six percent.) of the equity share capital of the Project SPVs.

9. **BROAD PRINCIPLES OF FUNCTIONING**

- 9.1 It is agreed between the Parties that in view of the limited availability of the resources (including the funds), the JVC will only undertake the implementation of such railway projects which are considered economically feasible and financially Viable by the Board and/or projects with viability gap funding. The feasibility of a railway project will be determined by the Board, after undertaking an analysis and pre-feasibility/ feasibility study of the potential projects.
- 9.2 Once a project has been sanctioned, a concession agreement will be signed between the MOR and the Project SPV. The concession period will be up to 30 (thirty) years (beginning from the date of execution of the respective concession agreement for the project).
- 9.3 The land acquisition will be undertaken by the GOO on a timely basis to ensure that the Viability of the project is not adversely affected. However, other options may also be considered by the Board and the Project SPV for the acquisition of land (as required for the implementation of the project).
- 9.4 The implementation (including operations and maintenance) of the projects will be undertaken by concerned Zonal Railway or any other agency as decided by the Project SPV in consultation with MOR. The cost of such implementation (including operations and maintenance) of the projects will be chargeable by MOR to the Project SPV. Further the MOR will ensure that the Indian Railways provides last mile connectivity to the projects (which have a close interface with the existing network of Indian Railways) and the costs for such last mile connectivity will be borne by Project SPVs, through an appropriate mechanism as mutually agreed between the Parties and the Project SPV.
- 9.5 The ownership of the land acquired for the project will vest with the Project SPV, which will bear the cost of land. In case of projects for which Viability may be a concern, apart from equity contribution, GOO will endeavor to provide the land at no cost to the Project SPV, so that the project may be implemented by the Project SPV without any delays.
- 9.6 At the end of the term of the concession agreement (i.e. of 30 years), or at termination of the Agreement, MOR will have the option to acquire the assets of the relevant project (excluding the land), at a nominal price of Rs. 1 (Rupee One only). The land would be transferred by the relevant Project SPV to MOR at the original acquisition cost of such parcel of land, as incurred by the Project SPV, if any. However, in the event the MOR does not exercise the option of taking over the assets of a project, such assets (including the land) will continue to vest with the Project SPV under the (then) existing terms and conditions of the concession agreement.
- 9.7 Apart from the equity contribution by the JVC, the Project SPVs may undertake to arrange financial support and resources from stakeholders of the projects other than the Parties and



the JVC. In this regard, the Project SPVs may raise funds in the form of debt from banks/multi-lateral agencies/ financial institutions on a non-recourse/recourse basis.

9.8 The entire debt for a project is to be serviced by the Project SPV during the concession period (in terms of the concession agreement), primarily out of internal earnings generated by it, including through apportioned earnings transferred to the Project SPV by the Railways based on the principles specified in the Indian Railways Financial Adjustment (IRFA) Rules.

9.9 It is clarified that in the event of a Project SPV making financial losses, the losses will be borne by the shareholders of such Project SPV in proportion of their (then) shareholding. In the event MOR exercises the option of acquiring the assets from the Project SPV, then MOR, by itself, will not be liable to bear the accumulated losses.

9.10 In the event any state governments other than the GOO is interested in participating in a project, the Project SPV may be formed with equity investment by the JVC, as well as direct equity investment from such other interested state governments. Shareholding of such Project SPV will be mutually agreed between the JVC and other state governments, and the inter-se rights in such Project SPV will be governed by the respective shareholders' agreement.

10. REPRESENTATIONS, WARRANTIES AND UNDERTAKINGS

Each of the Parties do hereby severally represent and warrant to the other Party that: (a) it has the necessary or requisite corporate power and authority to enter into this Agreement; (b) this Agreement constitutes a valid, legal and binding obligation enforceable according to the terms hereof; (c) this Agreement does not violate any court order, judgment, injunction, award, decree or writ of any court or other Governmental Authority against it; and (d) violate any Law or regulation of India.

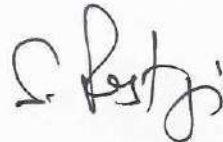
11. PARTIES OBLIGATION AND COOPERATION

11.1 MOR and GOO do hereby irrevocably undertake to grant or assist the Company in obtaining all necessary approvals and permits required to achieve its objects and to issue or cause to be issued such government orders, notifications and the like to enable the Company to perform its obligation under this Agreement.

11.2 MOR and GOO do hereby agree to arrange the funds required for the projects taken up by the Company for implementation. Such funds shall be arranged for the Company or the projects directly, in such form as may be mutually agreed to by the Parties. These contributions, will, however, be subject to the budgetary allocation by the Parliament/State Legislature as the case may be based on advanced planning and firmed up proposals.

11.3 To the extent MOR and GOO have already incurred any direct expenditure in connection with the Company, the same may be reimbursed or capitalized as equity or in such manner as the Parties may mutually agree.

11.4 Where MOR and GOO have already incurred expenditure with regard to any of the projects taken up for investment or development by the Company and choose to route/reckon such investment through the Company, GOO and/or MOR shall at their option, but subject to the provisions of this Agreement as regards shareholding by the Parties, require such expenditure to be reimbursed or capitalized by the Company/projects in such form as may be mutually agreed by the Parties and the Company. In the event of such capitalization of expenses the Company shall ensure issue of appropriate instruments/securities by itself



and/or the projects in consideration therefore. However, such reimbursements/capitalization can be done only after acceptance of the expenditure by the other parties.

- 11.5 MOR and GOO agree to provide all necessary support and assistance required in implementation of the projects promoted by the Company.

- 11.6 Without prejudice to any other provision of this Agreement, the Parties and the Company agree to share with each other, such information which shall not be subject to any confidentiality agreement and which would not affect in any way the interests of the respective Parties, for the purpose of furthering the business of the Company in general, and in particular the accomplishment of its objectives.

11.7 **Amendment to Articles of Association**

The Company and the Parties do hereby irrevocably undertake that as soon as possible and in any event not later than a period of six months from the Effective Date they shall take all necessary steps to amend the Memorandum and Articles of Association of the Company to reflect the terms of this Agreement and other consequential amendments and to amend any provisions inconsistent with this Agreement.

12. **TERM AND TERMINATION**

- 12.1 This Agreement shall become effective on the date hereof and shall continue to remain in force until terminated in accordance with the provisions of Article 12.2 hereof.

- 12.2 This Agreement may be terminated;

- (i) by mutual agreement of Parties in writing,
- (ii) upon the listing of the Shares on one or more recognised stock exchanges as a consequence of an IPO, as and when made,
- (iii) upon occurrence of any other event which, under law, has the effect of terminating this Agreement.

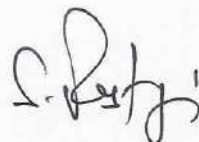
13 **ACCOUNTS, RECORDS AND REPORTS**

13.1 **Audited Accounts**

The Company shall furnish to the shareholders as soon as they are available, but in any event not later than 120 days after the end of each Financial Year to which they are related (i) certified copies of its financial statements prepared in accordance with Indian GAAP and where applicable, internationally accepted accounting principles; consistently applied; (ii) the opinion of the Company's auditors concerning the Company's financial statements, in English language.

13.2 **Records**

Each of the Shareholders shall be provided with reasonable access to all accounting records kept by the Company during business hours.



13.3 **Information to Shareholders**

The Company shall furnish or cause to be furnished promptly to a Shareholder all such reports and information as it shall reasonable request concerning (i) the financial statements and audit referred to in this Article 13 (Accounts, Records and Reports); and (ii) any other matters relating to their respective investments in the Company. The Company shall, upon request by the Shareholders, consult with the Shareholder on any of these matters.

14. **DISPUTE RESOLUTUION**

In the event of any dispute or difference arising between the Parties in connection with the Agreement or in connection with interpretation and application of the provisions of the Agreement, such disputes or difference shall be referred by either Party for arbitration to the sole arbitrator ("**Arbitrator**") in the Department of Public Enterprises. The Arbitration and Conciliation Act, 1996 shall not be applicable to arbitration under this Article. The award of the Arbitrator shall be binding upon the Parties to the dispute, provided, however any Party aggrieved by such award may make a further reference for setting aside or revision of the award to the Law Secretary, Department of Legal Affairs, Ministry of Law & Justice, Government of India. Upon such reference, the dispute shall be decided by the Law Secretary or the Special Secretary / Additional Secretary when so authorized by the Law Secretary, whose decision shall bind the Parties finally and conclusively.

15. **INTENT AND EFFECT**

Each of the Parties hereto, undertakes to fully and promptly observe and comply with the provisions of this Agreement and the Company's Articles of Association to the intent and effect that each and every provision shall be enforceable by the Parties hereto *inter se* and in whatever capacity. If, during the continuance of this Agreement, there shall be any conflict between the terms of this Agreement and the provisions of the Articles of Association of the Company, the Parties shall cause the Company to, and the Company shall, subject to applicable laws, amend the Articles of Association of the Company, to incorporate the relevant provisions of this Agreement and to give effect to the matters contemplated by this Agreement.

16. **EXERCISE OF VOTING RIGHTS**

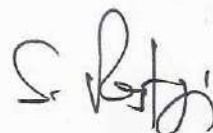
Each of the parties hereto, hereby agrees to exercise his voting rights in favour of each other to procure the fulfilment of the terms of this Agreement.

17. **NON-WAIVER**

No omission or delay on the part of any Party in requiring a due and punctual fulfilment by any other Party of its obligations hereunder shall constitute, or be deemed to constitute, a waiver of any of such Party's rights to require such due and punctual fulfilment and in any event shall not constitute or be construed as a continuing waiver and/or as a waiver of other or subsequent breaches of the same or other (similar or otherwise) obligations of such other Party hereunder or as a waiver of any remedy.

18. **BINDING EFFECT**

Subject to the terms and conditions hereof, this Agreement is binding upon and will ensure to the benefit of the Parties and their respective successors and permitted assigns.



19. **NO ASSIGNMENT**

Neither this Agreement (in part or in whole) nor any right or obligation hereunder or part hereof shall be assigned by any Party hereto without the prior written consent of the other Parties hereto (any attempt to do so will be void), except as otherwise specifically provided herein.

20. **INVALID PROVISIONS**

If any provision of this Agreement is held to be illegal, invalid, or unenforceable under any present or future Law, and if the rights or obligations under this Agreement of the Company or any or all of the Shareholders will not be materially and adversely affected thereby (a) such provision will be fully severable; (b) this Agreement will be construed and enforced as if such illegal, invalid, or unenforceable provision has never comprised a part hereof; (c) the remaining provisions of this Agreement will remain in full force and effect and will not be affected by the illegal, invalid, or unenforceable provision or by its severance herefrom.

21. **ADDITIONAL DOCUMENT**

Each Party hereto shall promptly execute and deliver such additional documents and Agreements as are envisaged in this Agreement and any other Agreement or document as may be reasonably required for the purpose of implementing this Agreement, provide that no such document or Agreement shall be inconsistent with the spirit and intent of this Agreement.

22. **AMENDMENT**

This Agreement may be modified or amended only by writing, duly executed by or on behalf of the Parties.

23. **COUNTERPARTS**

This Agreement shall be executed simultaneously in two counterparts, each of which will be deemed an original, but all of which will together constitute one and the same instrument.

24. **NOTICES**

All notices, requests, demands and other communications made or given under the terms of this Agreement or in connection herewith shall be in writing and shall be either personally delivered, transmitted by postage prepaid registered mail (air mail if international), or by telex or cable (confirmed and writing by postage prepaid registered mail – air mail if international), and shall be addressed to the appropriate party at the following address or to such other address or place as such party may from time to time designate:

To MOR at:

Addressee: Executive Director (Works), Ministry of Railways, Railway Board

Address: Rail Bhavan, Raisina Road, New Delhi - 110001

Phone: +91 11 23382102

Fax: +91 11 23382102

Email: edw@rb.railnet.gov.in



To GOO at:

Addressee: Chief Secretary to Government of Odisha,

Address: Secretariat, Government of Odisha, Sachivalaya Marg, Bhubhaneshwar – 751001

Phone:+91 674 2534300

Fax:+91 674 2536660

Email: cs-ori@nic.in

Unless another address has been specified by a party hereto by written notice thereof to the other party, any notice, request, demand or other communication given or made pursuant to this Agreement shall be deemed to have been received (i) in the case of personal delivery, on the date of delivery, (ii) in the case of mail delivery, on the date which is fifteen (15) days after the mailing thereof and (iii) in the case of a telex or cable, the date of dispatch thereof.



**SCHEDULE I
DEED OF ADHERENCE**

This **DEED OF ADHERENCE** ("Deed") is executed this [•] day of [•], by [•], having its registered office/ principal place of business at [•] (the "**Intended Transferee**").

WHEREAS:

- A. By a joint venture agreement dated [•] (the "**JVA**") amongst MOR and the GOO (collectively the "**Existing Shareholders**"), MOR and GOO agreed to a mutual distribution/ regulation of their rights and liabilities as Shareholders.
- B. ¹Article [•] of the JVC requires, *inter alia*, that, concurrently with the Transfer of Shares by any Shareholder to any third party purchaser, such third party purchaser will, as a condition of such Transfer of Shares to it execute this Deed and be bound by the JVA.

The third party purchaser is hereinafter referred to as the Intended Transferee.

NOW THIS DEED WITNESSETH AS FOLLOWS:

1 Definitions and Interpretation

Capitalized terms used but not defined in this Deed will, unless the context otherwise requires, have the respective meanings ascribed thereto in the JVA.

2 Undertakings

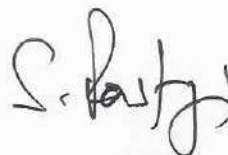
- 2.1 The Intended Transferee hereby acknowledges that it has received a copy of, and has read and understands, the JVA and the charter documents and covenants, and agrees and confirms that it will be bound by all provisions of the JVA and the Charter Documents as if it was an original party thereto, including with respect to the rights and obligations of the Existing Shareholders contained therein, and the JVA will have full force and effect on it, and will be read and construed to be binding on it.
- 2.2 The Intended Transferee agrees and acknowledges that the rights and obligations which accrue to the Intended Transferee pursuant to any acquisition of Shares, will be equivalent to and will not be in excess of the rights which the transferor would have had in relation to such Shares.

3 Representations and Warranties

- 3.1 The Intended Transferee hereby represents and warrants to the other parties hereto that:
- (a) It is duly incorporated and validly existing as a corporation under the laws of its place of incorporation and has full power, capacity and authority to execute, deliver and perform this Deed and has taken all necessary actions (corporate, statutory or otherwise) to execute and authorise the execution, delivery and performance of this Deed².
- (b) This Deed upon execution and delivery by it will constitute a legal and binding obligation on it enforceable against it in accordance with its terms.

¹ in case of execution by the Company, this provision can be deleted.

² To be modified appropriately if the Intended Transferee is an individual.



- (c) The discharge by it of the obligations and liabilities under the Agreement and the performance by it of the acts and transactions contemplated hereby do not and will not (whether with or without the giving of notice or lapse of time or both), violate, conflict with, require any consent under or result in a breach of or default under: (i) any Applicable Law to which it is subject; or (ii) any term, condition, covenant, undertaking, agreement or other instrument to which it is a party or by which it is bound;
- (d) To the best of its information and knowledge, there are no legal, quasi-legal, administrative, arbitration, mediation, conciliation or other proceedings, claims, actions, governmental investigations, orders, judgments or decrees of any nature made, existing, threatened, anticipated or pending against it which may prejudicially affect its holding of the Shares of the JVC or the due performance or enforceability of the Agreement or this Deed or any obligation, act, omission or transaction contemplated thereunder or hereunder.

4. Enforceability

Each of the parties to the JVA and the JVC will be entitled to enforce the JVA against the Intended Transferee as if the Intended Transferee had been an original party to the JVA since the date thereof.

5. Governing Law

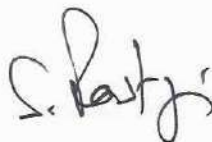
This Deed will be governed by and construed in accordance with the laws of India. The terms and conditions of the JVA in relation to the provisions regarding arbitration and other terms and conditions will be deemed to have been incorporated in this Deed.

SIGNED BY:

By [•]

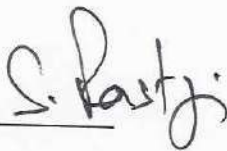
Name:

Title:



IN WITNESS WHEREOF the parties hereto have signed, sealed and delivered this Agreement on the day, month and year first above written in presence of:

For and on behalf of Government of Odisha



Name: Shri Sanjay Rastogi

Designation: Commissioner cum Secretary, Government of Odisha

For and on behalf of President of India



Name: Shri Ved Parkash Dudeja

Designation: Executive Director (Works), Ministry of Railways