

STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY

CHHATTISGARH  
Government of India

Ministry of Environment and Forests

Commercial Complex,  
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No. 905/SEIAA-CG/ EC/ Mining /RYP /41/08

Raipur, Date 31/7/2014

To,

M/s Jayaswal Neco,  
Industries Limited  
Siltara Growth Centre,  
Siltara, Raipur (C.G.)

Sub: Environmental Clearance for Mining of Limestone of capacity 78,000 tonnes per annum (ROM) in mining lease area of 12.145 ha at Village – Manpur, Gram Pachayat – Ranjitpur, Tehsil & Block- Sahaspur-Lohara, District – Kabirdham (C.G.) – Regarding.

Ref: Your application letter no. nil, dated 25/06/2008 and subsequent correspondence ending dated: 05/06/2014.

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The undersigned is directed to refer to your communication dated 25/06/2008, 23/02/2009, 28/05/2009, 25/06/2009, 24/12/2009, 16/06/2010, 27/11/2010, 24/07/2013, 13/01/2014, and 05/06/2014 regarding the subject mentioned above.

You have applied to Ministry of Environment and Forests, Government of India for Environment Clearance vide letter dated 08/08/2007 for mining of 0.078 million tonnes per annum lime stone in Manpur in mining lease area of 12.145 ha. The proposal was considered for ToR presentation during appraisal committee meeting held on 12/12/2007. The ToR was granted by MoEF on 4<sup>th</sup> January 2008 vide letter no. J-11015/887/2007–IA.II(M). Public hearing was held on 17/10/2008 at Primary School Bhawan, Village – Manpur, Gram Pachayat – Ranjitpur, Tehsil & Block- Sahaspur-Lohara, District – Kabirdham (C.G.).

The project being in 'B' Category, Ministry of Environment and Forests, Government of India, New Delhi transferred the original file to SEIAA Chhattisgarh vide letter no. J-11015/887/2007–IA.II(M) dated 12/06/2008. Public hearing proceedings were received by SEIAA Chhattisgarh from Member Secretary, Chhattisgarh Environment Conservation Board, Raipur vide letter no. 8936/TS/CECB/2009 Raipur dated 19/01/2009. Project proponent has applied to SEIAA, Chhattisgarh for the grant of environmental clearance on 26/02/2009.

The case was considered in the 28<sup>th</sup>, 33<sup>rd</sup>, 43<sup>rd</sup>, 49<sup>th</sup>, 51<sup>st</sup>, 63<sup>rd</sup>, 71<sup>st</sup>, 111<sup>th</sup>, 126<sup>th</sup> and 140<sup>th</sup> meeting of SEAC, Chhattisgarh held on 31/03/09, 30/05/2009, 30/09/2009, 18/01/2010, 27/03/2010, 09/09/2010, 10/01/2011, 07/09/2013, 15/01/2014 and 06/06/2014 respectively. Project proponent made presentation in the 43<sup>rd</sup> and 140<sup>th</sup> meeting of SEAC, Chhattisgarh held on 30/09/2009 06/06/2014 respectively.

Shri D.L. Choudhary, President and Shri Vinod Mishra, Associate Head of M/s Jaysawal Neco Limited and Shri Umakant Rode from M/s Srushti Sewa Nagpur (Consultant) presented the case.

It is noted that M/s Srushti Sewa Nagpur has prepared revised final EIA report. National Accreditation Board for Education and Training has accredited M/s Srushti Sewa Nagpur from 15/05/2011 to 14/05/2014 vide letter dated 27/01/2012. Ambient air monitoring at nine locations, noise monitoring at ten locations, ground water / surface water monitoring at seven locations and soil monitoring at four locations have been carried out. Monitoring was carried out during 01/03/2011 to 30/05/2011.

During presentation it was noted that Manpur Open Cast Limestone Mine with capacity - 0.078 Million Ton /Annum is having total lease area 12.145 ha (30 acres). Government of Chhattisgarh, Mineral Resource Department vide letter no. 3-167/97/12/2, dated 22/06/1999 has allocated captive limestone located at Tehsil-Sahaspur Lohara, District Kabirdham, Chhattisgarh on an area of approximately 12.145 ha. Indian Bureau of Mines (IBM) has approved mine plan vide letter dated 14/09/1998. Mining lease deed executed with Chhattisgarh Government on 18/10/2000. Limestone shall be captive used for its Blast Furnace unit. Cost of the project is Rs. 50 lakhs. It is proposed to develop mine by open cast semi mechanized method. Mining operation involves drilling, blasting, screening and sizing. Mineable reserves is 21,88,687 tonnes. Life of mine is 28 years. During lease period 6.75 ha land will be excavated, out of which 0.288 ha land will be covered in afforestation. Scientific method of blasting will be done to avoid the vibration to the surrounding. Mining will be done up to 10 meter depth only; whereas the ground water level is at a depth of 15 meters. There will be no effect in ground water level. Water will be accumulated during rainy season in the pit which will recharge the ground water level of the area. There is a pathway passing through the lease hold area. The path way will be diverted outside the lease hold area by the project proponent. Wet drilling and water sprinkling on haul road will be done to avoid the generation of dust. Transportation shall be done by truck and / or tippers adopting mechanized loading. Water requirement will be met from bore well for drinking purpose (2 KL/Day), while mine seepage water will be used for sprinkling (10 KL/Day) on haul road and plantation purposes. During monsoon there will be accumulation of water in the excavated pits which is proposed to be dewatered into a sump and will be pumped into de-silting tanks. After adequate settling of solids, it will be used for dust suppression and plantation. No overburden or loose sediments will be kept on working benches. Check dam will be constructed around the dump prevent washing off loose sediments. Plantation for reclamation of degraded area and on waste rock deposition will be ensured. A green belt with thick canopy on total 10 ha safety area and mine lease boundary area shall be carried out. A commitment for expending 5% of royalty towards community development has been submitted. Ambient air quality data was monitored at 09 locations for PM<sub>10</sub> & PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub>. The maximum 24 hourly concentration for PM<sub>10</sub> was 55.6 µg/cum observed at village Pipariya at S-E direction at the distance of 6.0 km and the minimum value of PM<sub>10</sub> was 30.1 µg/cum observed at village Bisatola at S-W direction at the distance of 3.5 km. The maximum 24 hourly concentration for PM<sub>2.5</sub> was 26.2 µg/cum observed at village Kehka at South direction at the distance of 5.0 km and the minimum value of PM<sub>2.5</sub> was 10.9 µg/cum observed at village Bisatola at S-W direction at the distance of 3.5 km. The maximum 24 hourly concentration for SO<sub>2</sub> was 16.0 µg/cum, observed at village Kaona Bundeli at N-E direction at the distance of 3.5 km and the minimum value of SO<sub>2</sub> was observed 6.1 µg/cum. The maximum 24 hourly concentration for NO<sub>x</sub> was 14.0 µg/cum observed at village Pipariya at S-E direction at the distance of 6.0 km and the minimum value of NO<sub>x</sub> was 3.2 µg/cum. There is no endangered flora and fauna present in the core as well as buffer zone. Certificate from DFO obtained in confirmation to the same.

Based on the consideration of the documents submitted, the presentation made by the project proponent, discussion held, the Committee unanimously recommended for grant of environmental clearance for mining of limestone of capacity 78,000 tonnes per annum (ROM) in mining lease area of 12.145 ha at Village – Manpur, Gram Pachayat – Ranjitpur, Tehsil & Block- Sahaspur-Lohara, District – Kabirdham (C.G.) subject to the fulfillment of the terms and conditions mentioned in minutes of the meeting.

SEIAA, Chhattisgarh perused the application submitted by the project proponent and minutes of the meeting of SEAC, Chhattisgarh in the 43<sup>rd</sup> meeting held on 05/07/2014. After deliberation, SEIAA, Chhattisgarh unanimously accepted the recommendation of SEAC, Chhattisgarh and decided to grant environmental clearance for mining of limestone of capacity 78,000 tonnes per annum (ROM) in mining lease area of 12.145 ha at Village – Manpur, Gram Pachayat – Ranjitpur, Tehsil & Block- Sahaspur-Lohara, District – Kabirdham (C.G.) subject to the fulfillment of the terms and conditions mentioned in the minutes of the meeting.

Accordingly, environmental clearance is hereby accorded for mining of limestone of capacity 78,000 tonnes per annum (ROM) in mining lease area of 12.145 ha at Village – Manpur, Gram Pachayat – Ranjitpur, Tehsil & Block- Sahaspur-Lohara, District – Kabirdham (C.G.) subject to fulfillment of the terms and conditions mentioned below:-

**A. Specific Conditions**

- i. No two pits shall be simultaneously worked i.e before the first pit is exhausted and reclamation work completed, no mineral bearing area shall be worked. Maximum depth of the mine shall not be more than 10 meters. Underground water table shall not be encountered due to any mining operations under any circumstances.
- ii. After exhausting the first mine pit and before starting mining operations in the next pit, reclamation and plantation works in the exhausted pit shall be completed so as to ensure that reclamation, forest cover and vegetation are visible during the first year of mining operations in the next pit. This process shall follow till the last pit is exhausted. Adequate rehabilitation of mined pit shall be completed before any ore bearing area is worked.
- iii. Adequate buffer zone shall be maintained between two consecutive mineral bearing deposits.
- iv. Fugitive dust generation shall be controlled. Fugitive dust emission shall be relatively monitored at locations of nearest human habitation (including schools and other public amenities located nearest to sources of dust generation as applicable) and periodic reports shall be submitted to Chhattisgarh Environment Conservation Board, Raipur, Regional Office, Chhattisgarh Environment Conservation Board, Bhilai-Durg, SEIAA, Chhattisgarh and Regional Office, Ministry of Environment & Forests, Government of India, Bhopal.
- v. Project authority shall ensure outlet dust (particulate matter) emission less than 50 mg/Nm<sup>3</sup>. Project authority shall conform to the standards prescribed in schedule – I of Environment (Protection) Rules, 1986 (as amended) by Ministry of Environment and Forests, Government of India. The Chhattisgarh Environment Conservation Board may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location. At no time the emission level shall go beyond the prescribed standards.

- vi. Shelter belt i.e. wind break of 30 m width and consisting of at least 5 tiers around lease facing the school / habitation / agriculture fields (if any in the vicinity) shall be raised.
- vii. A 50 m barrier of no mining zone all along the side(s) facing the nallah (if any) passing through the lease area or passing adjacent to the lease shall be demarcated and thick vegetation of native species raised in the said barrier. Status of implementation shall be submitted to Chhattisgarh Environment Conservation Board, Raipur, Regional Office, Chhattisgarh Environment Conservation Board, Bilai-Durg, SEIAA, Chhattisgarh and Regional Office, Ministry of Environment & Forests, Government of India, Bhopal half yearly basis.
- viii. It shall be ensured that no silt originating due to mining activity is transported to the any surface water course running in and around the lease area.
- ix. Need based assessment of the nearby villages shall be conducted to study economic measures which can help in up-liftment of poor section of society. Income generating projects / tools such as development of fodder farm, fruit bearing orchids, vocational training etc. can form a part of such programme. Project authority shall provide separate budget for community development activities and income generating programmes. This shall be addition to vocational training for individuals imparted to take up self employment and jobs.
- x. Project authority shall adopt additional two villages for community development works in order to improve the amenities as a part of commitment towards social and economic up-liftment of the area. As per demand of public, the proposal for providing cement on the concession rates to the local people will be implemented shortly.
- xi. Land use pattern of the near-by villages shall be studied and action plan for abatement and compensation for damage to agricultural land / common property land (if any) in the nearby villages, due to mining activity shall be submitted to Chhattisgarh Environment Conservation Board, Raipur, Regional Office, Chhattisgarh Environment Conservation Board, Bilai-Durg, SEIAA, Chhattisgarh and Regional Office, Ministry of Environment & Forests, Government of India, Bhopal within six months. Annual status of implementation of the plan and expenditure thereon shall be reported to the Chhattisgarh Environment Conservation Board, Raipur, Regional Office, Chhattisgarh Environment Conservation Board, Bilai-Durg, SEIAA, Chhattisgarh and Regional Office, Ministry of Environment & Forests, Government of India, Bhopal from time to time.
- xii. Maintenance of village roads through which transportation of ores are undertaken shall be carried out by the project authority regularly at its own expenses. The roads shall be black topped.
- xiii. Project authority shall adopt rainwater-harvesting technique in the project area for recharge of ground water. The rainwater-harvesting technique shall be incorporated right from the design stage of all structures. Project authority shall develop rainwater-harvesting structures to harvest the rainwater for utilization in the lean season as well as to recharge the ground water table. A detailed scheme for rainwater harvesting to recharge the ground water aquifer shall be prepared in consultation with Central Ground Water Authority / State Ground Water Board. A copy of the same shall be submitted within three months to the Chhattisgarh Environment Conservation Board, Raipur, Regional Office, Chhattisgarh Environment

Conservation Board, Bhilai-Durg, SEIAA, Chhattisgarh and Regional Office, Ministry of Environment & Forests, Government of India, Bhopal. Prior permission from the competent authority shall be obtained for extraction of ground water and project authority shall submit permission from Central Ground Water Board for withdrawal of ground water.

- xiv. Measures of prevention and control of soil erosion and management of silt shall be undertaken. Protection of dumps against erosion shall be carried out with geo textile matting or other suitable material, and thick plantations of native trees and shrubs shall be carried out at the dump slopes. Dumps shall be protected by retaining walls.
- xv. Garland drain of appropriate size, gradient and length shall be constructed for both mine pit and for waste dump and sump capacity shall 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 shall 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 de-silted at regular intervals. Trenches / garlands drains shall be constructed at foot of dumps installed at regular intervals to arrest silt from being carried out top water bodies. Adequate number of check dams and gully plugs shall be constructed across seasonal / perennial nallahs (if any) flowing through the ML area and silts arrested. De-silting at regular intervals shall be carried out.
- xvi. Ground water in the core zone shall be regularly monitored for contamination and depletion due to mining activity and records maintained. The monitoring data shall be submitted to the Chhattisgarh Environment Conservation Board, Raipur, Regional Office, Chhattisgarh Environment Conservation Board, Bhilai-Durg, SEIAA, Chhattisgarh and Regional Office, Ministry of Environment & Forests, Government of India, Bhopal regularly. Further, monitoring points shall be located between the mine and drainage in the direction of flow of ground water shall be up and records maintained.
- xvii. Cultivable waste land (within 5 km of the lease) shall be identified and fodder farming or other suitable productive use of waste land shall be taken up in phased manner. Status of implementation shall be submitted to the Chhattisgarh Environment Conservation Board, Raipur, Regional Office, Chhattisgarh Environment Conservation Board, Bhilai-Durg, SEIAA, Chhattisgarh and Regional Office, Ministry of Environment & Forests, Government of India, Bhopal.
- xviii. Adequate protection against dust and other environmental pollution arising due to mining activity shall be made so that human habitation located near the lease (as applicable) are not adversely affected. The status of implementation shall be reported to the Chhattisgarh Environment Conservation Board, Raipur, Regional Office, Chhattisgarh Environment Conservation Board, Bhilai-Durg, SEIAA, Chhattisgarh and Regional Office, Ministry of Environment & Forests, Government of India, Bhopal and work shall be completed before start of mining.
- xix. Monitoring of soil samples for assessment of contamination due to mining activity (as applicable) shall be regularly conducted and records maintained.
- xx. Transportation of limestone shall be done by covering the trucks with tarpaulin or other suitable mechanism so that no spillage of lime stone / dust takes place.

- xxi. Occupational health and safety measures of the workers including identification of work related health hazards, training on materials eradication, HIV, and health effects on exposure to mineral dust etc. shall be carried out. The Project authority shall engage a full time qualified doctor who is trained in occupational health. Periodic monitoring for exposure to respirable mineral dust on the workers shall be conducted and records maintained including health records of the workers. Awareness programme for workers on impact of mining on their health and precautionary measures like use of personal equipments etc. shall be carried out periodically. Review of impact of various health measures undertaken (at intervals of five years or less) shall be conducted followed by follow up action where ever required.
- xxii. Top soil / solid waste shall be stacked properly with proper slope and adequate safeguards and shall be utilized for backfilling (where ever applicable) for reclamation and rehabilitation of mined out areas. Top soil shall be separately stacked for utilizing later for reclamation and shall not be stacked along with overburden.
- xxiii. Over burden (OB) shall be stacked at earmarked dump site(s) only and shall not be kept active for long period. The maximum height of the dump shall not exceed 06 meter and overall slope of the dump shall not exceed 28 deg. The OB dump shall be backfilled. The OB dumps shall be scientifically vegetated with suitable native species to prevent erosion and surface run off.
- xxiv. A study shall be commissioned to study the various slope stability parameters to reach at the optimum slope angle. Appropriate factor of safety shall be adopted based on the study and sensitivity analysis of critical parameters of slope stability.
- xxv. Study report on subsidence and stage wise development plan starting from 5<sup>th</sup> year of operation till the end of the mine at an interval of 5 years should be submitted. Regular monitoring of subsidence movement on the surface over working area and impact on water bodies / vegetation / structures / surrounding should be continued till movement ceases completely. In case of observation of any high rate of subsidence movement, appropriate measures should be taken to avoid loss of life and material. Cracks should be effectively plugged with ballast and clayey soil / suitable material.
- xxvi. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Chhattisgarh Environment Conservation Board, Raipur, Regional Office, Chhattisgarh Environment Conservation Board, Bilai-Durg, SEIAA, Chhattisgarh and Regional Office, Ministry of Environment & Forests, Government of India, Bhopal on six monthly basis.
- xxvii. Adequate plantation shall be raised in the mining lease area, haul roads, OB dump sites etc. Green belt development shall be carried out considering CPCB guidelines including selection of plant species and in consultation with the local DFO / Agricultural Departments. Herbs and shrubs shall also form a part of afforestation programme besides tree plantation. A wide green belt of broad leaf local species shall be developed in at least 33% of the project area. The density of the trees shall not be less than 2500 plants per ha. The project authority shall involve local people with the help of self help group for plantation programme. Details of year wise afforestation programme including rehabilitation of mines out area shall be submitted to the Chhattisgarh Environment Conservation Board,

Raipur, Regional Office, Chhattisgarh Environment Conservation Board, Bilai-Durg, SEIAA, Chhattisgarh and Regional Office, Ministry of Environment & Forests, Government of India, Bhopal every year.

- xxviii. Regular monitoring of ground water level and quality shall be carried out by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring shall be carried out four times in a year- pre monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the data thus collected shall be regularly sent to the Chhattisgarh Environment Conservation Board, Raipur, Regional Office, Chhattisgarh Environment Conservation Board, Bilai-Durg, SEIAA, Chhattisgarh and Regional Office, Ministry of Environment & Forests, Government of India, Bhopal, Central Ground Water Authority and Regional Director, Central Ground Water Board.
- xxix. Adequate air monitoring stations shall be installed in the areas of human habitations near the mine and the results of ambient air quality shall be maintained and regularly submitted to the Chhattisgarh Environment Conservation Board, Raipur, Regional Office, Chhattisgarh Environment Conservation Board, Bilai-Durg, SEIAA, Chhattisgarh and Regional Office, Ministry of Environment & Forests, Government of India, Bhopal.
- xxx. The waste water from the mine shall be treated to conform to the prescribe standards before reuse in different purpose. The discharged water from the settling pond shall be regularly monitored and report submitted to the Chhattisgarh Environment Conservation Board, Raipur, Regional Office, Chhattisgarh Environment Conservation Board, Bilai-Durg, SEIAA, Chhattisgarh and Regional Office, Ministry of Environment & Forests, Government of India, Bhopal, Central Pollution Control Board.
- xxxi. Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transportation of ores and others shall have valid permissions as prescribed under Central Motor Vehicles Rules, 1989 and its amendments. Transportation of ore shall be done only during day time. The vehicles transporting ores shall be covered with a tarpaulin or other suitable enclosures so that no dust particles / fine matters escape during the course of transportation. No overloading of lime stone for transportation shall be committed.
- xxxii. Detailed action plan with respect to suggestions / improvements and recommendations made during public consultation / hearing shall be submitted to the Chhattisgarh Environment Conservation Board, Raipur, Regional Office, Chhattisgarh Environment Conservation Board, Bilai-Durg, SEIAA, Chhattisgarh, Government of Chhattisgarh and Regional Office, Ministry of Environment & Forests, Government of India, Bhopal within six months. Implementation status shall be submitted every six month regularly
- xxxiii. A final mine closure plan, along with details of corpus fund shall be submitted to the SEIAA, Chhattisgarh and Regional Office, Ministry of Environment & Forests, Government of India, Bhopal, in 5 years in advance of the final mine closure for approval.

#### **B. General conditions**

- i. No change in mining technology and scope of working shall be made without prior approval of SEIAA, Chhattisgarh.
- ii. No change in calendar plan including excavation, quantum of mineral and waste shall be made.

