

**ARASMETA CEMENT PLANT OF M/S NUVOCO VISTAS CORP.LTD.
VILLAGE ARASMETA, PO- GOPALNAGAR, DISTT.
JANJGIR - CHAMPA, CHHATTISGARH**

CONSENT TO OPERATE

PLANT: - AIR Consent Letter No. 3454/TS/CECI/2018 dated 23/07/2018 for Cement 22.4 Lacs MT/Annum
Water Consent Letter No. 3452/TS/CECI/2018 dated 23/07/2018 for Cement 22.4 Lacs MT/Annum

D.G Set: - AIR Consent Letter No. 3386/TS/CECI/2016 date 09/09/2016 for 3 x 6 = 18 MW.
Water Consent Letter No. 3384/TS/CECB/2016 date 09/09/2016 for 3 x 6 = 18 MW

Monitoring Data For the Month of Mar' 2019

A. Stack Emission – Consent Condition for Particulate matter -Max. 30 mg/Nm³

| S.N. | Stack Attached to | PCEs | Particulate Matter (Mg/Nm ³) |
|------|--------------------|---------------|--|
| 1 | KILN & RAW MILL -1 | Bag Filter | 23.2 |
| 2 | PC & RAW MILL -2 | Bag Filter | 23.1 |
| 3 | COOLER | ESP | ND |
| 4 | COAL MILL -1 | Bag Filter | 22.8 |
| 5 | COAL MILL -2 | Bag Filter | 21.4 |
| 6 | CEMENT MILL -1 | Bag Filter -1 | 23.0 |
| 7 | CEMENT MILL -1 | Bag Filter -2 | 22.7 |
| 8 | CEMENT MILL -2 | ESP | 20.0 |
| 9 | CEMENT MILL -2 | Bag Filter | 23.0 |
| 10 | DG-3 | - | NR |
| 11 | DG-4 | - | NR |
| 12 | DG-5 | - | NR |

SD-Shut down, NR- Not running ND-Not done

B. Ambient Air Quality –

| Pollutants | Ambient Air Quality (Monthly Average) | | | | |
|---|--|---------------------------|--------------------------------|---------------------------------|---|
| | LOCATION | | | | |
| | NAAQ STD. | Near Wagon Tippler - East | Near Main Security Gate - West | Near Rail way TXR Office -North | Near Old Truck Tippler (Near Petrol Pump) - South |
| PM10 (µg/m ³) | 100 | 30.0 | 26.5 | 28.4 | 34.2 |
| PM2.5 (µg/m ³) | 60 | 21.2 | 18.5 | 20.7 | 23.6 |
| Sulphur Dioxide SO ₂ (µg/m ³) | 80 | 15.7 | 16.2 | 15.6 | 16.1 |
| Nitrogen Dioxide NO ₂ (µg/m ³) | 80 | 20.6 | 22.4 | 22.0 | 21.4 |
| Carbon Monoxide CO (mg/m ³) | 4 | 0.26 | 0.28 | 0.34 | 0.3 |


C- Discharge Water Quality:

Cement plant maintained Zero Discharge, for cooling water close circuit arrangement, Plant domestic water discharge through Sock pit. Sewage Treatment Plant installed in colony for treatment of Domestic wastewater, Treated water used for Horticulture purpose.

Quality of Treated water of STP:

| S.N. | Pollutants | Monthly average Results | CECB Standard (Max) |
|------|--------------------------------|-------------------------|---------------------|
| 1 | pH | 7.2 | 5.5 - 9.0 |
| 2 | Suspended Solids | 68 | 100 mg/Ltr. |
| 3 | Chemical Oxygen Demand (COD) | 22 | 250 mg/Ltr |
| 4 | Biological Oxygen Demand (BOD) | 63 | 30 mg/Ltr |
| 5 | Oil & Grease | <1 | 10 mg/Ltr |

For Nuvoco Vistas Corp.Ltd
(Arasmeta Cement Plant)


(Sanjay Tyagi)
Vice President -ACP

Nuvoco Vistas Corp. Ltd.

Arasmeta Cement Plant, P.O. Gopalnagar, Dist. Janjgir – Champa, Chhattisgarh – 495663 (India)

Website: www.nuvoco.in | CIN: U26940MH1999PLC118229

Registered Office: Equinox Business Park, Tower J, East Wing, 4th Floor, LBS Road, Kurla (West), Mumbai 400070



**ARASMETA LIMESTONE MINES OF M/S NUVOCO VISTAS CORP.LTD
VILLAGE ARASMETA, DISTT. JANJGIR - CHAMPA, CHHATTISGARH**

Environment clearance

Letter No. J11015/64/2003- IA, II (M) GOI, and MoEF dated 18/7/2005 for production of 2.7 MTPA for Arasmeta Limestone mine.

CONSENT TO OPERATE

Air Consent Letter NO. 3357/TS/CECB/2017 Date 21/09/2017 for 2.7 MTPA

Water Consent Letter NO. 3355/TS/CECB/2017 Date 21/09/2017 for 2.7 MTPA

Monitoring Data for the Month Mar ' 2019

KEY PARAMETERS

A) STATIC INFORMATION

| | | | |
|---|------------------------------|---|---------------------------|
| 1 | MINE LEASE AREA | : | 499.987 Hect. |
| 2 | PRODUCTION | : | 2.7 MTPA |
| 3 | LEASE DURATION | : | 31/03/ 2030 |
| 4 | DATE OF COMMENCEMENT OF WORK | : | Mines operated since 1982 |

B) DYNAMIC PARAMETERS

(i) Ambient Air Quality

| Parameters | NAAQ STD | Ambient Air Quality Monitoring Station | | | | | | | |
|----------------------------------|----------------------|--|------|---------------------|------|----------------|------|--------------------------|------|
| | | Pit Boundary (East) | | Mines office (West) | | Colony (North) | | Arasmeta village (South) | |
| | | I | II | I | II | I | II | I | II |
| PM10 | 100µg/m ³ | 42.5 | 47.4 | 40.0 | 52.3 | 46.3 | 57.2 | 50.0 | 42.0 |
| PM2.5 | 60 µg/m ³ | 27.9 | 33.2 | 25.2 | 36.1 | 29.8 | 31.0 | 31.0 | 29.4 |
| Sulphur Dioxide SO ₂ | 80(µg/m ³ | 17.1 | 14.1 | 14.2 | 15.6 | 15.0 | 12.4 | 16.2 | 14.5 |
| Nitrogen Dioxide NO ₂ | 80(µg/m ³ | 25.1 | 24.7 | 24.1 | 22.6 | 22.6 | 20.0 | 20.8 | 23.0 |
| Carbon Monoxide CO | 4 mg/m ³ | 0.28 | 0.36 | 0.30 | 0.30 | 0.28 | 0.32 | 0.34 | 0.34 |

BDL - Below Detection Limit-

(ii) Vibration (PPV) 1.72 mm / Sec at the distance of 300 meter from blast site.

(iii) Quality of Discharge Water:- Zero Discharge Water From Mines

| | | | | |
|---|------------------------------|---|---|---|
| 1 | Total Dissolved Solid (TDS) | : | - | - |
| 2 | Dissolved Oxygen(DO) | : | - | - |
| 3 | PH | : | - | - |
| 4 | Total Suspended solids (TSS) | : | - | - |

(iv) Greenbelt/Plantation

| | | |
|---|-----------------------------------|---|
| 1 | Nos. of Trees planted till date - | 1028807 Around Plant, Colony & Included Arasmeta Mines & Harihar project (up to Oct 2018) |
| 2 | Calendar year wise (progressive) | 2017 |
| | | 8056 |
| | | 2018 |
| | | 7098 (Plant & Mines) |

For Nuvoco Vistas Corp.Ltd
(Arasmeta Cement Plant)

S/ (Sanjay Tyagi)
Vice President -ACP

Nuvoco Vistas Corp. Ltd.

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**KIRARI LIMESTONE MINES OF M/S NUVOCO VISTAS CORP.LTD
VILLAGE KIRARI - CHORBHATTI
DISTT. JANJGIR - CHAMPA, CHHATTISGARH**

Environment clearance

Environment clearance. Letter No. J11015/23/2002- IA, II (M) GOI, and MoEF dated 9/12/2003 for production of 0.36 MTPA for Kirari Limestone mine.

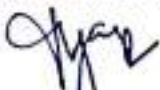
CONSENT TO OPERATE

Air Consent Letter NO. 2290/RO/TS/CECB/2018 Date 04/08/2018 for 0.36 MTPA
Water Consent Letter NO. 2289/RO/TS/CECB/2018 Date 04/08/2018 for 0.36 MTPA

Monitoring Data For the Month of Mar ' 2019

| KEY PARAMETERS | | | | | | | | | | |
|---|----------------------------------|--|--|---------------|------|----------------------|-----------|----------------|------|--|
| A) STATIC INFORMATION | | | | | | | | | | |
| 1 | MINE LEASE AREA | : | 167.048 Hect. | | | | | | | |
| 2 | PRODUCTION | : | 0.36 MTPA | | | | | | | |
| 3 | LEASE DURATION | : | 25/08/2050 | | | | | | | |
| 4. | DATE OF COMMENCEMENT OF WORK | | Mines operated since 2006 | | | | | | | |
| B) DYNAMIC PARAMETERS | | | | | | | | | | |
| (i) Ambient Air Quality | | | | | | | | | | |
| | | Ambient Air Quality Monitoring Station | | | | | | | | |
| Parameters | NAAQ STD | Chorbatti (East) | | Banhil (West) | | Mines office (North) | | Kirari (South) | | |
| | | I | II | I | II | I | II | I | II | |
| PM10 | 100µg/m ³ | 48.2 | 58.0 | 44.5 | 53.2 | 42.3 | 46.8 | 50.2 | 49.7 | |
| PM2.5 | 60 µg/m ³ | 26.9 | 34.4 | 27.4 | 35.1 | 24.7 | 30.0 | 30.0 | 32.1 | |
| Sulphur Dioxide SO ₂ | 80(µg/m ³) | 16.4 | 13.2 | 14.9 | 14.6 | 15.8 | 14.2 | 12.8 | 16.2 | |
| Nitrogen Dioxide NO ₂ | 80(µg/m ³) | 22.3 | 19.8 | 23.2 | 20.2 | 17.9 | 26.1 | 20.4 | 24.8 | |
| Carbon Monoxide CO | 4 mg/m ³ | 0.29 | 0.28 | 0.34 | 0.29 | 0.29 | 0.30 | 0.32 | 0.32 | |
| (ii) Vibration (PPV) -2.42 Sec at the distance of 200 meter from blast site. | | | | | | | | | | |
| (iii) Quality of Discharge Water:- Zero Discharge Water From Mines | | | | | | | | | | |
| 1 | Total Dissolved Solid (TDS) | : | - | | | | | | | |
| 2 | Dissolved Oxygen(DO) | : | - | | | | | | | |
| 3 | PH | : | - | | | | | | | |
| 4 | Total Suspended solids (TSS) | : | - | | | | | | | |
| (iv) Greenbelt/Plantation | | | | | | | | | | |
| 1 | Nos of Trees planted till date - | | 45360 nos. Plantation at Kirari Mines (up to 2018) | | | | | | | |
| 2 | Calendar year wise (progressive) | | 2017 | | | | 2018 | | | |
| | | | 6865 Nos. | | | | 3700 Nos. | | | |

For Nuvoco Vistas Corp.Ltd
(Arasmeta Cement Plant)


(Sanjay Tyagi)
Vice President -ACP

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**CHILHATI LIMESTONE MINES OF M/S NUVOCO VISTAS CORP.LTD
VILLAGE CHILHATI
DISTT. BILASPUR, CHHATTISGARH**

Environment clearance

Environment clearance. Letter No. J-11015/210/2010-IA.II (M) GOI and MoEF dated 18/9/2014 for production of 4.0 MTPA for Chilhati Limestone mine.

CONSENT TO OPERATE

Air Consent Letter NO. 1009/TS/CECB/2018 Date 18/04/2018 for 1.38 MTPA
Water Consent Letter NO. 1007/TS/CECB/2018 Date 18/04/2018 for 1.38 MTPA

Monitoring Data for the Month of Mar` 2019

| KEY PARAMETERS | | | | | | | | | | | | | | |
|---|-----------------------------------|------|--|------|-------------------|------|--------------|------|---------|------|-------|------|--|--|
| A) STATIC INFORMATION | | | | | | | | | | | | | | |
| 1 | MINE LEASE AREA | : | 1085.365 Hect. | | | | | | | | | | | |
| 2 | PRODUCTION | : | 1.38 MTPA | | | | | | | | | | | |
| 3 | LEASE DURATION | : | 2065 | | | | | | | | | | | |
| 4. | DATE OF COMMENCEMENT OF WORK | : | Mines operated since 19 th April 2017 | | | | | | | | | | | |
| B) DYNAMIC PARAMETERS | | | | | | | | | | | | | | |
| (i) Ambient Air Quality | | | | | | | | | | | | | | |
| Ambient Air Quality Monitoring Station | | | | | | | | | | | | | | |
| Parameters (µg/m3) | Gonadih | | Chilhati | | Jaitpuri-Semradih | | Kokri-Gobari | | Sonadih | | Belha | | | |
| | I | II | I | II | I | II | I | II | I | II | I | II | | |
| PM10 | 47.2 | 42.6 | 60.0 | 49.4 | 49.5 | 46.0 | 55.2 | 50.0 | 44.7 | 47.2 | 46.8 | 41.3 | | |
| PM2.5 | 27.3 | 25.4 | 30.0 | 30.0 | 24.1 | 28.0 | 32.5 | 33.6 | 34.6 | 25.3 | 26.4 | 22.0 | | |
| Sulphur Dioxide SO ₂ | 12.6 | 13.6 | 14.6 | 14.2 | 12.4 | 15.4 | 15.6 | 12.6 | 13.9 | 14.2 | 11.1 | 12.5 | | |
| Nitrogen Dioxide NO ₂ | 17.6 | 20.1 | 21.5 | 23.4 | 24.7 | 25.1 | 22.4 | 22.1 | 23.5 | 20.5 | 17.0 | 19.8 | | |
| Carbon Monoxide CO | 0.28 | 0.27 | 0.34 | 0.32 | 0.31 | 0.34 | 0.29 | 0.27 | 0.35 | 0.30 | 0.32 | 0.27 | | |
| NAAQ STD- PM10-100 µg/m3, PM2.5-60 µg/m3 SO₂ & NO₂-80 µg/m3 and CO-4 mg/m3 | | | | | | | | | | | | | | |
| (ii) Vibration (PPV) Nil / Sec at the distance of 200 meter from blast site. | | | | | | | | | | | | | | |
| (iii) Quality of Discharge Water:- Zero Discharge Water From Mines | | | | | | | | | | | | | | |
| 1 | Total Dissolved Solid (TDS) | : | - | | | | | | | | | | | |
| 2 | Dissolved Oxygen(DO) | : | - | | | | | | | | | | | |
| 3 | PH | : | - | | | | | | | | | | | |
| 4 | Total Suspended solids (TSS) | : | - | | | | | | | | | | | |
| (iv) Greenbelt/Plantation | | | | | | | | | | | | | | |
| 1 | Nos. of Trees planted till date - | : | 10785 nos. Plantation at Chilhati Mines (up to 2017) | | | | | | | | | | | |
| 2 | Calendar year wise (progressive) | : | 2017 | | | | | 2018 | | | | | | |
| | | : | 3800 | | | | | 6985 | | | | | | |

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