

CHANDRAPUR-CEPI Action Plan Status(August-2013)

Compliance status of Action Plan for reduction of CEPI Summary of Proposed Action Points (Water Environment) 31/8/2013

Short term Action Point (up to 1-year, including continues activity)

| Sr. No. | Action Points | Responsible Stake Holders | Time estimate | Cost | Compliance status |
|---------|--|---------------------------|---|--|---|
| 1 | <ul style="list-style-type: none"> • M/s Bilt Graphics Paper product, Ballarpur is having activated sludge process ETP of capacity 90 MLD. At present effluent generation is 35 -43 MLD. Industry is achieving 25 – 30 BOD Norms Modernization/replacement of existing batch digesters with continuous digestion system, pulp washing with drum washers will be replaced with presses & adoption of ECF bleaching technology. Replacement of old 2 recovery boilers with single recovery boiler with ESP of 5 electric fields. Up-gradation of ETP & Installation of cooling tower for recycling & MBBR (Moving Bed Bio- film Reactor) technology for improving effluent quality. ▪ Installation of oxygen delignification process to reduce AOX , BOD & Colour ▪ Existing ETP up-gradation with additional thickener & twin wire press ▪ Installation of Disc filter for recycling of paper machine effluent in the system ▪ Distribution Network for treated effluent (0.5 MLD) for gardening in colony area. ▪ Use of effluent in fire hydrant system | Industry | <p style="text-align: center;">30/09/2011</p> <p style="text-align: center;">Implemented</p> <p style="text-align: center;">31/12/2010</p> <p style="text-align: center;">31/03/2011</p> <p style="text-align: center;">31/03/2011</p> <p style="text-align: center;">Implemented</p> | <p style="text-align: center;">Entire modernization project is costing around 500Crore</p> <p style="text-align: center;">40 crore</p> <p style="text-align: center;">2 crore</p> <p style="text-align: center;">1.5 crore</p> <p style="text-align: center;">30 lakhs</p> <p style="text-align: center;">15 lakhs</p> | <p style="text-align: center;">Modernization plant is ready for operation. Plant is under stabilization since May -2013</p> <p style="text-align: center;">Work completed</p> <p style="text-align: center;">Completed.</p> <p style="text-align: center;">Completed</p> <p style="text-align: center;">Completed</p> <p style="text-align: center;">Completed.</p> |

| Sr. No. | Action Points | Responsible Stake Holders | Time estimate | Cost | Compliance status |
|---------|--|---------------------------|--------------------------------------|----------------------------------|--|
| 2 | <p>M/s Multi- organics Pvt. Ltd., MIDC Chandrapur has installed ETP & Treated effluent is being used for Cooling tower. Industry has achieved Zero discharge Norms. Excess effluent is being dumped in Solar Evaporation Tank. Industry has completed provision of separate drain for storm water & Industrial effluent. Up gradation not required.</p> <p>Provision of mechanical seals, provision for arresting spillages/seepages, treatment & recycle in process</p> | Industry | <p>Implemented</p> <p>31/12/2010</p> | <p>---</p> <p>3 lakhs</p> | <p>Completed and treated water being utilized for cooling tower and thus achieved zero discharge.</p> <p>Completed. Mechanical seal provided to all process pumps and thus complied.</p> |
| 3 | <p>Ghugus Area:</p> <p>1) Gupta Coalfields Ltd: Installation of high frequency screen & thickener to reduce the amount of effluent & easy recovery of solid waste</p> <p>2)Bhatiya International Ltd: Additional concrete tank for storage of industrial effluent</p> | Industry | <p>31/03/2011</p> <p>31/12/2010</p> | <p>2.5 lakhs</p> <p>10 lakhs</p> | <p>Installed and commissioned.</p> <p>completed</p> |
| 4 | <p>Enforcement of Stringent Norms to evolve Clean technology for Water polluting industries Such as Paper Mill & Thermal Power Plants, along with effective monitoring /vigilance</p> | Industry | 30/09/2011 | --- | <p>M/s. BILT Graphics paper products Ltd., a pulp and paper mill has adopted new environmental friendly technology based on ECF i.e. Elemental Chlorine Free technology and Board has granted consent to establish Plant is under stabilization since May-2013.Secondly, M/s. Chandrapur Super Thermal Power Station has proposed to install coal washery within their premises for utilization of wash coal. Board has issued directions to all cement and power plants for utilization of washed coal.</p> |
| 5 | <p>Additional 2 NWMP monitoring stations at D/S of Wardha River at Ghuggus opencast mine & D/S of MIDC nalla meeting to Erai River</p> | MPCB | 31/12/2010 | | <p>Monitoring is started by this office under Environmental program.</p> |

Summary of Proposed Action Points (Water Environment)

Long term Action Point (More than 1-year)

| Sr. No. | Action Points | Responsible Stake Holders | Time estimate | Cost | Compliance status |
|---------|--|---|---------------|------|---|
| 1. | Provision of STP for Chandrapur Town. The domestic effluent generation from Chandrapur Town is about 30.0 MLD. Municipal Council is proposed to install Two Nos. of STP having capacity 45.0 MLD & 25.0 MLD under UIDSSMT scheme, along with laying of sewerage line | Municipal Council | 31/03/2012 | | 95% of Civil Work of 2 STP at Pathanpura & Rahamat Nagar Areas completed. Total sewer line connecting two STPs is 180 km. The total capital investment for two STPs including sewer line is 72 crore and around 42 crore expenditure is incurred so far. STP is submerged under water due to flooding in Chandrapur. |
| 2. | Use of treated industry effluent for spraying for dust emission control in nearby mines and plantation in forest area, to reduce river discharge | WCL, Forest department & PWD & Industry | 31/03/2012 | | During sub-committee meeting dated 3/7/2013, the Chairman has directed WCL to interact with forest authority for utilization of mine water in nearby forest area also to explore project for effective use of mine water being disposing into river, such as water supply scheme, irrigation project, water harvesting. |
| 3 | Provision of STP for Ballarpur town: | Ballarpur Municipal Council | 31/03/2012 | ---- | District collector has instructed MC Ballarpur to submit proposal for STP |
| 4 | Provision of storm water drain in MIDC Tadali and MIDC Chandrapur | MIDC | 31/03/2012 | --- | As per the reply of Dy. Chief Executive Officer (Env) dt18/12/2012 the excavated open gutter is provided at MIDC Chandrapur area. Proposal is submitted for approval for Tadali Area. |

Summary of Proposed Action Points (Air Environment)

Short term Action Point (up to 1 year, including continuous activity)

| Sr. No. | Action Points | Responsible Stake Holders | Time estimate | Cost | Compliance Status | |
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| 1 | MIDC Tadali | | | | | |
| | 1) Chaman Metallics: | Industry | 31/12/2010 | 33 Lakhs | Completed | |
| | <ul style="list-style-type: none"> • Installation of 3 stage bag house at product house • Installation of new bag filter at cooler discharge | | 31/12/2010 | 8.5 lakhs | Completed | |
| | <ul style="list-style-type: none"> • Concretization of roads of 0.8 km covering stores and raw material section • Up-gradation of Recuperator of ESP 1 & 2 like RAV changes, pipe replacement, plate replacement of castable, impeller | | 30/09/2011 | 85 lakhs | completed | |
| | | | 31/12/2010 | 30 Lakhs | Completed | |
| | 2) Grace Industries: | Industry | 31/12/2010 | 4 lakhs | Completed | |
| | <ul style="list-style-type: none"> • Installation of bag filter at coal crusher, coal screening section & iron ore crusher • Pneumatic fly ash handling system of M/S Grace Industries. | | 30/06/2011 | 2.5 crore | Will be utilized after operation of CFBC boiler which is under erection | |
| | 3) Siddhabali Ispat Ltd: | Industry | 31/12/2010 | 9.5 crore | WHRB installed | |
| | <ul style="list-style-type: none"> • Installation of WHRBs for power generation | | | | | |
| | <ul style="list-style-type: none"> • Replacement of electric fields & revamping of ESPs for all three kilns to achieve 100 mg/Nm³ | Industry | 31/03./2011 | 35 lakhs | Replacement of ESP-1 is completed | |
| <ul style="list-style-type: none"> • Provision of silo for storage of de-dusting dust which will dispose in After Burning chamber of kilns. | Industry | 31/12/2010 | 25 lakhs | Complied | | |
| <ul style="list-style-type: none"> • Concretization of internal roads | | 30/06/2011 | 50 lakhs | Work completed. Except 1.0KM Patch | | |
| <ul style="list-style-type: none"> • Installation of coal storage shed | | 30/09/2011 | 40 lakhs | Shed for coal to be used for CFBC boiler is completed | | |

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| | 4) Gopani Iron & Power Ltd: - <ul style="list-style-type: none"> • Installation of 6 bag houses for FBC power plant • Installation of bag filters at raw material feeding hopper and transfer point • Concrete road from stores to SMS & from weigh bridge to truck tippler | | 31/12/2010 31/03/2011 1 year | 60 lakhs 30 lakhs 2.37 crore | 6 bag house are installed work completed Road from weigh bridge to truck tippler completed .Canteen to SMS Road is WBM. This patch is expected to complete by Oct-2013. |
| 2 | Ballarpur Area BILT Graphics Ltd: <ul style="list-style-type: none"> • Installation of NCG (Non condensable gases) burning system to reduce odour in the area. • Use of CO₂ generated from lime kiln operations for preparation of CaCO₃ (greenhouse gas reduction) | Industry | 31/03/2011 | 300 Lakhs | Work is completed, NCG burning is in operation Completed, plant is in operation |
| 3 | MIDC Chandrapur: Multiorganics Ltd: Installation of Bag Filter at coal fire boilers 4.0 & 4.5 t/hr capacity | | 31/03/2011 | | Bag filter installed and made operational. |
| 4 | Ghuggus 1) ACC Cement: Installation of state of the art technology, entire new plant by scrapping old one: State of the art technology comprises of new kilns, grate cooler & 6 stage, double stream, In Line Calciner, which is an energy efficient process & Reverse Air Bag House & new ESP will be used for air pollution control at kiln, raw mill, boiler & cooler discharge. All storages & material handling systems will be under closed shed. Expected emission levels will be 50 mg /Nm ³ for TPM. NOx emission will also be minimized | Industry | 31/03/2011 | 1451 Crore | Complied. Modernization plant started in March -2011 |
| | 2) Lloyd Metals Ltd: <ul style="list-style-type: none"> • Installation of new ESP for 500 TPD kilns by scraping old one • Installation of dust collector at discharge hood at coal slinger belt 3170 • Installation of 20000 cum capacity dust collector at lump iron ore crushing building • 100 x 4 TPD kiln - Replacement of existing 20000 cum dust collector capacity by 55000 dust collector capacity at product house | Industry | Installed in June 2010 30/06/2011 31/03/2011 31/12/2010 | 5 crore 2 lakhs 1 lakh 25 lakhs | Completed Complied. Complied. Complied. |

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| | <p>3) Gupta Coalfields Ltd:</p> <ul style="list-style-type: none"> • Installation dust extraction system with wet scrubber at washing section. • Installation of rain guns with pipelines & foggy nozzles around the periphery of fines hopper | Industry | 30/06/2011 | 8 lakhs | At present Water sprinkler arrangement provided. |
| | | | 30/09/2011 | 50 lakhs | Rain gun and foggy nozzles are installed near fines hopper which seems inadequate |
| | <p>4) WCL Ghuggus opencast: Installation of additional rain guns at kargil chowk, old railway siding, new railway siding & CHP, Total no. 258</p> | Industry | 31/03/2011 | 15 Lakhs | 79 fixed water sprinklers provided, 26 mist type sprinklers provided near CHP, 4 near weigh bridge, |
| | <p>5) Bhatiya International Ltd: Concretization of Internal Transport road from main gate to weigh bridge up to receiving hopper</p> | Industry | 31/12/2010 | 25 lakhs | Complied. |
| 5 | <p>CSTPS Chandrapur:- Augmentation & Improvement of ESP's and provision of Ammonia dosing system.</p> | CSTPS | 31/03/2011 | | 1) Continuous ammonia dosing for unit no. 1, 2, 3, 4, 5, 6 & 7 is completed. |
| 6 | <p>WCL Issues:- Coal transportation road should be defined and dedicated and adequate number of fixed water sprinklers should be provided on the road. Period of six month is required for this compliance.</p> | WCL | 31/03/2011 | --- | There are two mines namely, M/s. Ghugus Opencast Mines, Ghugus and M/s. Ballarpur U/G Mines under CEPI. Fixed water sprinklers provided on the road. |
| 7 | <p>WCL Issues:- Tarring of coal transportation roads should be done regularly. This should be a regular activity.</p> | WCL | Regular activity | | Main coal transportation roads are tarred. |

Summary of Proposed Action Points Air Environment

Long term Action Point (More than 1-year)

| Sr. No. | Action Points | Responsible Stake Holders | Time estimate | Cost | Compliance Status |
|---------|---|---------------------------|---------------|--|--|
| 1 | <p>Ballarpur</p> <p>1) BILT Graphics Ltd:</p> <ul style="list-style-type: none"> • Installation of new single recovery boiler (capacity 180 TPH) of higher capacity with ESP of 5 electric fields by scrapping out existing old two recovery boilers to achieve 50 mg/Nm³ TPM standards • Adoption of ECF (Elemental chlorine free) bleaching process by replacing existing use of chlorine with chlorine dioxide. | Industry | 31/12/2011 | 500 crore (includes total modernization project) | Modernization plant is ready for operation. Plant is under stabilization since May-2013 |
| 2 | Implementation of Mechanical Closed type material transportation/coverage of coal carrying truck by full tarpaulin especially for Coal. Introduction of Closed Conveyor belts transportation of Coal from mines. | WCL & MPCB | 31/03/2012 | --- | Matter is subjudice. |
| 3. | <p>Ghugus & Tadali Area:</p> <p>Installation of waste heat recovery based boilers at sponge iron plants to effectively ensure that all flue gases are discharged through APC.</p> | Industry | 31/03/2012 | --- | There are 5 sponge iron plants in CEPI Area. Four plants have installed WHRB. One plant namely M/s Chaman Metallics has planned to install WHRB by 2013.Consent to establish for WHRB is already obtained. |

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| 4 | Development of alternative bypass road for transportation of the Coal & other raw material transportation | WCL, Industries, PWD, RTO | 31/03/2012 | Cost not assessed | During CEPI sub-committee meeting, PWD representative has informed that, after completion of approach road by January 2013, the bypass road, MIDC Chandrapur-Shivni-Rajura will become operative. Hence, 50% of traffic through Chandrapur city can be reduced. He further reported that, one approach bypass road can be made available for Ballarpur city passing through Visapur after necessary strengthening of existing road so as to take care of remaining 50% traffic of heavy vehicles passing Chandrapur city. |
| 6 | <p>Health Impact Studies:</p> <p>a) Health Impact studies due to air pollution problem can be undertaken in Chandrapur city by Health Department.</p> <p>b) Health studies in coal mine area can be undertaken by WCL authorities</p> | Health Department WCL | 31/03/2012 31/03/2012 | | Health study is under implementation. |

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| 7 | <p>Vehicular Pollution: a) Mass pool transportation system can be strengthened by State Government</p> <p>b) Adulteration of fuel can be prevented by District Administration</p> | Municipal Council / State Transport District Administration | 31/03/2012 31/03/2012 | | District collector has directed Chief Officer, Municipal Council, Chandrapur to identify the routes and agencies so as to have mass pool transportation system. The District Collector has stated that the regular monitoring is being carried out for checking adulteration of fuel and necessary action is being taken against defaulters. |
| 9. | Shifting of Unothorized Coal depot on Nagpur and Ghuggus Road. | District Administration | 31/03/2011 | | Under implementation. |

Summary of Proposed Action Points (Land Environment)
Short term Action Point (up to 1 year, including continues activity)

| Sr. No. | Action Points | Responsible Stake Holders | Time estimate | Cost | Compliance Status |
|---------|---|---|---|---|---|
| 1 | <p>Ballarpur Area BILT Graphics Ltd:</p> <ul style="list-style-type: none"> ▪ Installation of rotary lime kiln of capacity 180 TPD for recycling and re-burning of lime sludge ▪ Greening of old lime sludge hillocks with soil & trees ▪ Additional tree plantation on sludge hillocks & slopes (Biological Stabilization) | Industry | <p>Implemented (2008)</p> <p>Implemented</p> <p>31/03/2012</p> | <p>36 crores</p> <p>27 lakhs</p> <p>15 lakhs</p> | <p>Completed</p> <p>Completed</p> <p>20000 trees planted & effluent distribution network work is completed.</p> |
| 2 | <p>Ghugus Area</p> <p>1) Bhatiya International Ltd: Adequate arrangement for disposal of solid waste for thickener & settling tank</p> <p>2) Lloyd Metals Ltd:</p> <ul style="list-style-type: none"> ▪ Installation of new ash silo for 100 TPD boiler dust ▪ Disposal/utilization of char after beneficiation for power generation (work in progress) ▪ Installation of fly ash brick plant | <p>Industry</p> <p>Industry</p> <p>Industry</p> | <p>31/12/2010</p> <p>31/12/2010</p> <p>31/12/2010</p> <p>30/06/2011</p> | <p>2 lakh</p> <p>15 lakhs</p> <p>60 lakhs</p> <p>75 lakhs</p> | <p>Solid waste sludge is being disposed by sale.</p> <p>Installed and trials are going on.</p> <p>Char beneficiation plant installed & utilization in CFBC Boiler started.</p> <p>Fly ash bricks plant installed in March-2012. AFBC Boiler, fly ash is 100% disposed to cement manufacturer.</p> |

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| 3 | <p>Tadali Area</p> <p>1) Chaman Metallics Ltd:</p> <ul style="list-style-type: none"> • Coal char – Disposal by dispatching to power plant, low land filing & brick makers • Iron ore fines – Disposal by selling it to cement plant & to the fines exporter • Close shed for product house bag filter dust, bags for the storage arrangement <p>2) Grace Industries Ltd:</p> <ul style="list-style-type: none"> • Coal char disposal by AFBC boiler, iron ore fines disposal by sale, DSC sludge disposal by land fill, bag filter dust disposal by pneumatic handling area and use in kiln, ESP dust disposal by ash handing plant <p>3) Gopani Iron & Power Ltd:</p> <ul style="list-style-type: none"> • Char disposal for use in FBC boiler after beneficiation • Iron ore fines to Cement Mfg or Sinter Plant • ESP/de-dusting dust to Bricks Manufacturing <p>4) Sidhali Steel Industries:-</p> <ul style="list-style-type: none"> • Char disposal for use in FBC boiler or land filling • Iron ore fines to Cement Mfg or Sinter Plant • ESP/de-dusting dust to Bricks Manufacturing | | <p>30/06/2011</p> <p>30/06/2011</p> <p>31/03/2011</p> <p>31/03/2011</p> <p>30/09/2011</p> <p>30/06/2011</p> <p>31/01/2011</p> <p>31/03/2011</p> | <p>2.5 lakhs</p> <p>1.5 lakhs</p> <p>10 lakhs</p> <p>20 lakhs</p> <p>2.5 crore</p> <p>10.0 Lakhs</p> <p>4.0 Lakhs</p> <p>5.0 Lakhs</p> | <p>Complied.</p> <p>Complied</p> <p>Completed.</p> <p>Solid waste such as char/ESP dust is disposed by way of <u>Land filling</u>. Iron ore fines are disposed by sale to cement manufacture.</p> <p>Entire Char is being used in Power Plant after Beneficiation.</p> <p>Iron ore fines disposal to cement plant is going on</p> <p>ESP/de-dusting dust disposal have started since sep-2010</p> <p>Disposal of Char started</p> <p>Iron ore fines disposal to cement plant is going on</p> <p>ESP/de-dusting dust disposal have started since sep-2010.. Manual Water sprinkling arrangement on solid waste storage area is provided.</p> |
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Summary of Proposed Action Points (Land Environment)

Long term Action Point (More than 1-year)

| Sr. No. | Action Points | Responsible Stake | Time estimate | Cost | Compliance Status |
|---------|---|-------------------|--|--|--|
| 1 | Ghugus Lloyds Metals, Ghugus: <ul style="list-style-type: none"> ▪ Char disposal to Bricks manufacturers/ FBC boiler/land filling ▪ Land filling for ESP dust & by sale of de-dusting dust | Industry | 31/3/2011 31/3/2011 | 25 lakhs 75 lakh | Char beneficiation plant is started. Disposal of solid waste started, |
| 2 | Tadali: a) Chaman Metallica , Tadali <ul style="list-style-type: none"> ▪ Char disposal Bricks manufacturers/ FBC boiler/land filling ▪ Iron ore fines disposal By sale to cement industry/ sinter plant ▪ Land filling for ESP dust & by sale of de-dusting dust | Industry | May 2011 March 2011 Dec 2010 | 2.5 lakhs 1.5 lakhs 0.75 Lakhs | Char disposal started Iron ore is disposed. Disposal started. |
| 3 | Ballarpur: At present MSW of Ballarpur city (19 Ton/Day) is disposed in an unscientific manner. Municipal Council will have to develop waste treatment facility in a time bound manner for wet waste. | Municipal Council | 31/03/2012 | | Work yet not started. Collector, Chandrapur has directed SDO, Chandrapur to visit MSW site, Ballarpur and to submit report for initiating action against the Municipal Council, Ballarpur. |

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| 4 | <p>Chandrapur: Total MSW generation is 120 Ton/Day. At present 1.5 Ton/Day capacity of wet waste treatment facility is installed but not operational. Municipal Council is required to provide adequate capacity of waste treatment facility</p> | Municipal Council | 31/03/2012 | | <p>The fencing work is completed. Tenders are floated for installation of processing facility i.e. composting. Commissioner, Municipal Corporation, Chandrapur reported that, in spite of repeated tendering no response is received from the agencies. However, he assured to call proposals by changing some conditions in tender. The Chairman of sub-committee has directed to speed up this work immediately during meeting dated 30/10/2012.</p> |
| 5 | <p><u>WCL & CSTPS:-</u> Demonstration project for use of fly ash for filling the abandoned opencast coal mines</p> | CSTPS and WCL | | | <p>Work started.WCL authority has disposed 2000 Cu. Meter of pond ash in the underground mines. Besides this WCL Chandrapur area has utilized 472288 cubic meter of slag generated by Maharashtra electros melt Chandrapur.(MEL). However, DGMS has not given final approval for fly ash stoying instead of sand due to technical</p> |
| 6 | <p><u>Development of Landfilling site by MIDC Tadali</u></p> | MIDC AND Industry | | | <p>It is understood that MIDC has inventories the total quantum of solid waste to be disposed. MIDC has reserved plot admeasuring 20 acres for such facility.</p> |

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| 9. | Shifting of Unauthorized Coal depot on Nagpur and Ghuggus Road. | District Administ ration | 31/03/2011 | | Under implementation. |
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