

CGPL/UMPP/ENV/MoEF/3687

October 29, 2013

To
The Director,
Western Regional Office,
Ministry of Environment & Forest,
E-5, Arera colony, Link Road-3,
Ravishankar Nagar, Bhopal-462016 (M.P.)

Kind Attn: Dr. A. Mehrotra

Dear Sir,

- Sub** : Half yearly Compliance report for 4000 MW Mundra Ultra Mega Thermal Power Project at village Tunda, near Mundra, district Kutch by M/s Coastal Gujarat Power Limited.
- Ref** : 1) Environment clearance granted to us vide letter dated 2nd March, 2007 bearing No. J-13011/41/2006-IA.II (T) and
2) Corrigendum dated 5th April, 2007 bearing no. J-13011/41/2006-IA.II (T).
3) Corrigendum dated 26th April, 2011 bearing no. J-13011/41/2006-IA.II (T).

Please find enclosed herewith point wise compliance report on the status of implementation of the stipulated conditions in Environmental Clearance for Coastal Gujarat Power Limited.

Thank you,

Yours Faithfully,
For **Coastal Gujarat Power Limited**


(Sharad Baijal)
Head – O&M

Encl: As above

Copy to:

1. The Director, Ministry of Environment & Forest, Paryavaran Bhawan, CGO Complex, Lodi Road, New Delhi-110003
2. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-office complex, East Arjun Nagar, Delhi-110032
3. The Chairman, Gujarat Pollution Control Board, Parvayaran Bhawan, Sector 10A, Gandhinagar-382010(Guj.)

Coastal Gujarat Power Limited

(A Tata Power Company)
Ultra Mega Power Project

Tunda Vandh Road Tunda Village Mundra Kutch 370435

Regd office C/o The Tata Power Company Limited 34 Sant Tukaram Road Carnac Bunder Mumbai 400 009

Status of Conditions stipulated in Environment Clearance for CGPL, Mundra

Ref.: Environment Clearance vide Letter no. J-13011/41/2006 – IA.II (T) dated 02/03/2007,

Corrigendum dated 05/04/2007 and 26/04/2011

Sr. No.	Conditions	Compliance Status as on October 29, 2013
1	Comprehensive EIA study shall be carried out based on full one year data and submitted to MoEF within 15 months. Based on the same, air quality modeling shall be carried out. In case the modeling results show ground level SO ₂ concentration exceeding 80 µg/m ³ at any location in the impact zone or the sulphur content in coal is to ever exceed 1%, FGD shall be installed.	Comprehensive EIA study done based on one full year data and report submitted to MoEF, Delhi on 6 th September, 2007.
2	Space provision shall be made for flue gas de-sulphurisation (FGD) unit, if required at a later stage.	Space for FGD has been provided.
3	Physical modeling shall be carried out through one of the expert organization/ institution like CWPRS with the following objectives a) The activity does not affect the flow regime. b) To determine the intake and outfall location. c) To determine the mode (i.e. open channel or closed channel) for drawl of water. d) Hydraulic and thermal regime is not effected e) Sensitive areas such as mangroves, corals and aquatic flora and fauna are not affected.	Marine EIA Study for the same has been done by NIO. Based on the study open Intake and outfall channel for once through cooling is finalized.
4	Based on above said modeling study, locations of intake and outfall point and the mode of drawl of water shall be finalized prior to start of the work on the intake and outfall channels.	Location of the outfall point and mode of drawl of water is finalized based on the study done by NIO.
5	For the activities in CRZ area, necessary clearance under CRZ Notification as may be applicable shall be obtained prior to start the work on such activities.	Obtained vide letter no. F.No.11-11/2007-IA-III dated 9 th March, 2010 from MoEF.
6	A dredging plan showing the quantity of dredge material likely to be generated by capital dredging and maintenance dredging and the mode of disposal of the dredge material shall be submitted to MoEF at least 6 months prior to the commencement of the dredging operations and the project proponent shall abide by such directions as may be given by the ministry on its environmental aspects.	Dredging plan and Maintenance dredging plan has been submitted vide letter No. CGPL/UMPP/SHE /MoEF/1308 dated July 30, 2010 and letter No. CGPL/UMPP/ENV /MoEF/3318 dated December 24, 2012 respectively.
7	No Land filling of the site shall be carried out.	Noted. Only grading or backfilling of the site is being done wherever required.
8	The total land requirement shall not exceed 1242 Ha for all the activities/ facilities of the power project put together.	Total land under possession is 1037 Hectare excluding outfall channel.
9	The land requirement, which has been added from that proposed, originally, shall be reconciled at the stage of issue of notification for land acquisition under section 6. Land requirement shall be optimized and reduced land earlier meant for MRG system shall be converted into Green Belt.	Noted
10	Imported coal consumption shall not exceed 12 million tonnes per annum and ash and Sulphur content in the coal to be used in the project shall not exceed 10% and 1% respectively.	CGPL is using coal having ash content less than 10% and sulphur content less than 1%.
11	"One tri-flue and one bi-flue stacks of 275 m height each shall be provided with Continuous online monitoring equipments. Exit velocity of 25 m/sec shall be maintained".	One tri flue and one bi flue stack has been provided.
12	High efficiency ESP with efficiency not less than 99.9% shall be installed to ensure that particulate emission does not exceed 100 mg/Nm ³ .	High Efficiency ESP provided to comply with the condition.

Status of Conditions stipulated in Environment Clearance for CGPL, Mundra

Ref.: Environment Clearance vides Letter no. J-13011/41/2006 – IA.II (T) dated 02/03/2007,
Corrigendum dated 05/04/2007 and 26/04/2011

Sr. No.	Conditions	Compliance Status as on October 29, 2013
13	Low NOx burners shall be provided.	Low NOx burners with rating 365ppm have been provided.
14	Adequate dust extraction and dust suppression system such as bag filters and water spray system in dusty areas such as coal and ash handling areas, transfer areas and other vulnerable areas shall be provided.	<ul style="list-style-type: none">• State of the art dry fog system has been provided in all coal transfer points• Bag filters have been provided on the top of fly ash silo.• Water spraying arrangement provided on coal conveyer belt and coal storage area.
15	Fly Ash shall be collected in dry form and shall be used in a phased manner as per provision of the notification on Fly Ash Utilization issued by the Ministry in September, 1999 and its amendment. By the end of 9th year full fly ash utilization should be ensured. Unutilized ash shall be disposed off in the ash pond in the form of High Concentration Slurry.	Noted.
16	Ash Pond shall be lined with impervious lining.	Ash pond is provided with HDPE lining.
17	Rain water harvesting shall be practiced. A detailed scheme for the rain water harvesting to recharge the ground water aquifer shall be prepared in consultation with Central ground water Authorities/ State Ground Water board and a copy of the same shall be submitted within three months to the ministry.	Rain water harvesting Scheme is being implemented as per approved rain water harvesting plan obtained from CGWA & submitted to you vide letter No. CGPL/UMPP/ENV/MoEF/3495 dated April 20, 2013
18	Suitable system shall be provided to reduce water temperature at the final discharge point so that the resultant rise in the temperature of receiving water does not exceed 7°C over and above the ambient temperature of the receiving water body.	Once through cooling system is adopted to comply with the condition.
19	Regular monitoring of ground water in and around the ash pond area shall be carried out, records maintained and periodic reports shall be furnished to the Regional office of this ministry.	Regular monitoring of Ground water in and around ash pond is being carried out and periodic reports are submitted to regional office of the Ministry. Last report submitted on April 20, 2013 vide letter No CGPL/UMPP/ENV/MoEF/3495. The report of ground water quality around ash pond from April, 13 to September, 13 is enclosed as annexure 1.
20	100 m wide green belt shall be developed all around the plant, ash pond and township site covering one third (1/3 rd) of the total project area under green belt development.	Green belt development is in the progress. 300966 Nos. of saplings have been planted till September 30, 2013. The detailed status of Green belt is enclosed as annexure 2.
21	Conservation and development of mangroves species found in this area shall be taken up with a conservation plan duly approved by State Forest Department.	The project area is devoid of mangroves. However, we have developed mangroves on 1000 Ha land in village Kantiyajal, Bharuch, Gujarat in consultation with Gujarat Ecology Commission.

Status of Conditions stipulated in Environment Clearance for CGPL, Mundra

Ref.: Environment Clearance vides Letter no. J-13011/41/2006 – IA.II (T) dated 02/03/2007,

Corrigendum dated 05/04/2007 and 26/04/2011

Sr. No.	Conditions	Compliance Status as on October 29, 2013
22	Infrastructure facilities including first aid and sanitation arrangement shall be made for the drivers and other contract workers during construction phase.	Infrastructure facilities such as first aid centers, toilets, and STPs have been provided.
23	Leq of Noise level should be limited to 75 dB (A) and regular maintenance of equipment be undertaken. For people working in the high noise areas, personal protective devices should be provided.	Noise Monitoring is being carried out on regular basis. PPEs are provided for people working in high noise areas. Last report submitted on April 30, 2013 vide letter No CGPL/UMPP/ENV /MoEF/3495. Monitoring report of Noise levels for the month of April, 13 to September, 13 is enclosed as annexure 3.
24	The proposed generation capacity of the project could be increased only by way of adoption of waste heat recovery and entailing no additional coal and water consumption. The generation capacity thus obtained taking waste heat recovery into account shall however not exceed 4150 MW and configuration of units may be accordingly adopted at 5x830 MW.	Noted.
25	Regular monitoring of ambient air quality shall be carried out in and around the power plant and records maintained. The location of monitoring stations and frequency shall be decided in consultation with SPCB. Periodic reports shall be submitted to the Regional Office of this ministry.	Ambient Air Quality in and around plant is being monitored and reports are submitted to regional office of this ministry. Last report submitted on April 30, 2013 vide letter No CGPL/ UMPP/ ENV/ MoEF/ 3495. Monitoring report of ambient air quality for the month of April, 13 to September, 13 is enclosed as annexure 4.
26	The project proponent shall advertise in at least two local newspapers widely circulated the region around the project, one of which shall be in the vernacular language of the locality concerned, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the State Pollution Control Board/ Committee and may also be seen at website of the MoEF at envfor.nic.in	Published in "Kutch Mitra and The Times of India" dated 08/06/2007. Copy of the same is submitted to you vide our letter No. AK/MOE/2309/2008/66 dated September 23, 2008.
27	A separate environment monitoring cell with suitable staff should be set up for implementation of the stipulate environmental safeguards.	CGPL has established Environment Management Cell with qualified personnel to implement the Environmental Management Plan and a separate budget has been provided.
28	Half yearly report on the status of implementation of the stipulated conditions and environmental safeguards shall be submitted to the ministry, its regional office, CPCB and SPCB	Half yearly compliance report is being submitted to Ministry, Regional Office, CPCB and GPCB on regular basis. Last report submitted on April 30, 2013 vide letter No CGPL/UMPP/ENV /MoEF/3495.
29	Regional office of the MoEF located at Bhopal will monitor the implementation of the stipulated condition. A complete set of EIA Report and EMP along with the additional information submitted to MoEF from time to time shall be forwarded to the Regional Office for their use during monitoring.	Noted.

Status of Conditions stipulated in Environment Clearance for CGPL, Mundra

Ref.: Environment Clearance vide Letter no. J-13011/41/2006 – IA.II (T) dated 02/03/2007,
Corrigendum dated 05/04/2007 and 26/04/2011

Sr. No.	Conditions	Compliance Status as on October 29, 2013
30	Separate funds shall be allocated for implementation of environmental protection measures along with item wise breakup. This cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purpose and year wise expenditure should be reported to this Ministry and its regional office.	Details of the expenditure for the year 2012-13 have been submitted to regional office of this ministry vide letter No. CGPL/UMPP/ENV/MoEF/3495 dated April 30, 2013.
31	The project authorities shall inform the Regional office as well as the Ministry regarding the date of financial closure and final approval of the project by the concerned authorities and dates of start of land development work and commissioning of plant.	<ul style="list-style-type: none">•The financial agreement for debt financing was signed on April 24, 2008.•Test pile work for boiler foundation was started on February 4, 2008.
32	Full cooperation shall be extended to the scientist/ officers from the ministry/ Regional office of the ministry at Bhopal/ the CPCB/ the SPCB who would be monitoring the compliance of environmental status.	Noted.
33	Coal transportation from MPSEZ Port to plant site at Mundra shall be by closed conveyor belt system traversing a distance of about 9.10 Km	Complied with.
34	The project proponent shall upload the status of compliance of the conditions stipulated in the environmental clearance issued vide this Ministry's letter of even no. dated 02.03.2007 and its amendment dated 05.04.2007, in its website and updated periodically and also simultaneously send the same by e-mail to the Regional Office of the Ministry of Environment and Forests.	Compliance status of the conditions stipulated by MoEF is being regularly sent to MoEF and its Regional office. Last report submitted on April 30, 2013 vide letter No CGPL/UMPP/ENV /MoEF/3495. It is also uploaded on www.tatapower.com .
35	Criteria pollutants levels including NOx, RSPM (PM ₁₀ & PM _{2.5}), SOx (from stack & ambient air) shall be regularly monitored and results displayed in your website and also at the main gate of the power plant.	Criteria pollutant levels including NOx, RSPM (PM ₁₀ & PM _{2.5}), SOx, (from Stack and Ambient air) are monitored regularly, results are being displayed at main gate and company website www.tatapower.com .
36	An amount of Rs 72.0 Crores shall be earmarked as one time capital cost for CSR programme. Subsequently a recurring expenditure of Rs 14.40 Crores per annum shall be earmarked as recurring expenditure for CSR activities. Details of the activities to be undertaken shall be submitted within one month along with road map for implementation.	CGPL is committed for its social responsibility and budget is not a constraint for CSR activities. However a report on CSR activities and expenditure is submitted to MoEF, New Delhi on July 11, 2011 vide letter No. CGPL /UMPP /ENV /MoEF /2291. Details of the expenditure for the year 2012-13 have been submitted vide letter No. CGPL/UMPP/ENV/MoEF/3495 dated April 30, 2013.
37	It shall be ensured that an in-built monitoring mechanism for the schemes identified under CSR activities are in place and annual social audit shall be got done from the nearest government institute of repute in the region. The project proponent shall also submit the status of implementation of the scheme from time to time	An In-built monitoring mechanism for the schemes identified under CSR activities are in place and Mahatma Gandhi Labour Institute (MGLI), Government of Gujarat is conducting social audit for CGPL. Social audit report for the year 2012-13 has been submitted to MoEF vide letter No. CGPL/UMPP/ENV/GPCB/3361 on January 29, 2013.

ANNEXURE 1
Ground Water Quality Report

 COASTAL GUJARAT POWER LIMITED (A TATA POWER COMPANY)	Doc. No.		CGPL/FOR/ENV/09	
	Issue No.	01	Date	01/04/13
	Rev. No	00	Date	-
Half Yearly Ground Water Quality Monitoring Report				

Borewell No. 5 (Near Ash Pond):

Sr. No	Parameters	Unit	Apr, 13	May, 13	Jun, 13	Jul, 13	Aug, 13	Sept, 13
			01.04.13	01.05.13	01.06.13	01.07.13	01.08.13	02.09.13
1	Ground Water Level	Ft (approx)	41.5	41.5	40	40	35.5	34
2	Colour	Hazen Units	31	36	20	18	3	1.0
3	Turbidity	NTU	12.5	52.1	1480	1349	4.3	1.7
4	pH	-	7.75	7.60	7.74	7.06	7.34	7.59
5	Electrical Conductivity (at 25 ⁰ C)	µmhos/cm	2725	3142	3154	3196	3031	2976
6	Suspended Solids	mg/L	642	586	495	474	29	7.0
7	Total Dissolved Solids	mg/L	1608	1950	1865	1980	1817	1642
8	BOD (3 days at 27 ⁰ C)	mg/L	12	2.0	BDL	BDL	BDL	BDL
9	COD	mg/L	34	6.0	10.0	9.0	10.0	5.0
10	Alkalinity (as CaCO ₃)	mg/L	645	654	675	705	677	693
11	Carbonate (as CaCO ₃)	mg/L	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
12	Total Hardness(as CaCO ₃)	mg/L	101	72.3	65.9	87.5	94.8	113
13	Calcium (as Ca)	mg/L	22.4	17.9	15.9	19.9	22.1	23.9
14	Magnesium (as Mg)	mg/L	10.7	6.6	4.81	8.41	9.2	12.9
15	Cadmium (as Cd)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
16	Total Chromium (as Cr)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
17	Copper (as Cu)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
18	Iron (as Fe)	mg/L	0.81	0.98	1.72	0.22	0.09	0.13
19	Lead (as Pb)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
20	Manganese (as Mn)	mg/L	0.05	0.091	0.29	0.09	0.03	0.048
21	Zinc (as Zn)	mg/L	BDL	BDL	0.07	0.22	0.08	0.066
22	Sodium (as Na)	mg/L	444	573	566	672	670	470
23	Potassium (as K)	mg/L	4.47	3.24	2.37	2.09	1.6	1.5
24	Chloride (as Cl)	mg/L	443	456	472	494	513	975
25	Sulphate (as SO ₄)	mg/L	174	214	177	109	94.4	132
26	Fluoride (as F)	mg/L	2.11	2.71	4.48	5.6	7.1	5.88
27	Phosphate (as P)	mg/L	0.22	BDL	0.03	0.07	BDL	BDL
28	Nitrate (as NO ₃)	mg/L	7.89	5.12	4.02	1.05	BDL	BDL
29	Cyanide (as CN)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
30	Phenolic Compounds (As C ₆ H ₅ OH)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
31	Oil and Grease	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
32	Arsenic (as As)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
33	Mercury (as Hg)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
34	Total Coliforms	MPN Index/100mL	33.0	17	33	70	70	94.0

 COASTAL GUJARAT POWER LIMITED (A TATA POWER COMPANY)	Doc. No.		CGPL/FOR/ENV/09	
	Issue No.	01	Date	01/04/13
	Rev. No	00	Date	-
Half Yearly Ground Water Quality Monitoring Report				

Borewell No. 6 (Near Ash Pond):

Sr. No	Parameters	Unit	Apr, 13	May, 13	Jun, 13	Jul, 13	Aug, 13	Sept, 13
			01.04.13	01.05.13	01.06.13	01.07.13	01.08.13	02.09.13
1	Ground Water Level	Ft (approx)	36	36	37.5	36	31.5	29.5
2	Colour	Hazen Units	3	3	10	6	5	1.0
3	Turbidity	NTU	6.7	5.1	9.8	6.4	13.9	7.3
4	pH	-	8.41	8.44	8.40	7.84	7.08	7.48
5	Electrical Conductivity (at 25 ^o C)	µmhos/cm	2846	2958	2995	2846	1943	1702
6	Suspended Solids	mg/L	14.0	18.0	24.0	24.0	32	12.0
7	Total Dissolved Solids	mg/L	1706	1819	1810	1814	1204	1040
8	BOD (3 days at 27 ^o C)	mg/L	6.0	6.0	BDL	BDL	BDL	BDL
9	COD	mg/L	12.0	14.0	8.0	10.0	9.0	6.0
10	Alkalinity (as CaCO ₃)	mg/L	880	880	945	890	570	473
11	Carbonate (as CaCO ₃)	mg/L	123	170	193	N.D.	N.D.	N.D.
12	Total Hardness (as CaCO ₃)	mg/L	80.0	58.8	49.2	83.6	93.8	101
13	Calcium (as Ca)	mg/L	12.1	10.0	9.52	16.8	24.1	28.9
14	Magnesium (as Mg)	mg/L	11.4	7.86	5.85	9.9	17.8	11.8
15	Cadmium (as Cd)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
16	Total Chromium (as Cr)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
17	Copper (as Cu)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
18	Iron (as Fe)	mg/L	BDL	BDL	1.55	BDL	0.25	0.089
19	Lead (as Pb)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
20	Manganese (as Mn)	mg/L	BDL	BDL	0.03	BDL	0.03	0.028
21	Zinc (as Zn)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
22	Sodium (as Na)	mg/L	523	618	606	630	423	375
23	Potassium (as K)	mg/L	4.95	10.9	6.65	4.4	3.6	2.85
24	Chloride (as Cl)	mg/L	352	394	373	381	267	240
25	Sulphate (as SO ₄)	mg/L	128	144	149	87.9	67.8	64.0
26	Fluoride (as F)	mg/L	1.86	2.48	3.02	2.0	2.55	1.0
27	Phosphate (as P)	mg/L	0.39	0.55	0.47	0.84	0.45	0.04
28	Nitrate (as NO ₃)	mg/L	13.4	15.7	19.5	10.6	5.65	7.82
29	Cyanide (as CN)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
30	Phenolic Compounds (As C ₆ H ₅ OH)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
31	Oil and Grease	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
32	Arsenic (as As)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
33	Mercury (as Hg)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
34	Total Coliforms	MPN Index/100 mL	23.0	22	33	110	140	110

 COASTAL GUJARAT POWER LIMITED (A TATA POWER COMPANY)	Doc. No.		CGPL/FOR/ENV/09	
	Issue No.	01	Date	01/04/13
	Rev. No	00	Date	-
Half Yearly Ground Water Quality Monitoring Report				

Borewell No. 7(Near Ash Pond):

Sr. No	Parameters	Unit	Apr, 13	May, 13	Jun, 13	Jul, 13	Aug, 13	Sept, 13
			01.04.13	01.05.13	01.06.13	01.07.13	01.08.13	02.09.13
1	Ground Water Level	Ft (approx)	5	2	3.5	3	3	3
2	Colour	Hazen Units	2	1.1	1	1	4	1.0
3	Turbidity	NTU	1.3	8.03	0.3	0.1	5.9	3.2
4	pH	-	7.75	11512	8.17	7.83	7.23	7.68
5	Electrical Conductivity (at 25 ^o C)	µmhos/cm	11600	7.0	11555	11162	15174	12927
6	Suspended Solids	mg/L	10.0	6902	BDL	BDL	78	42
7	Total Dissolved Solids	mg/L	7072	4.0	7390	7462	10470	8290
8	BOD (3 days at 27 ^o C)	mg/L	7.0	11.0	BDL	BDL	16	BDL
9	COD	mg/L	24.0	286	13.0	6.0	48	10
10	Alkalinity (as CaCO ₃)	mg/L	325	11.8	286	274	364	283
11	Carbonate (as CaCO ₃)	mg/L	N.D.	455	11.8	N.D.	N.D.	N.D.
12	Total Hardness(as CaCO ₃)	mg/L	672	98.7	448	496	1199	930
13	Calcium (as Ca)	mg/L	122	64.7	92.0	96.5	162	128
14	Magnesium (as Mg)	mg/L	89.8	BDL	60.0	65.4	195	149
15	Cadmium (as Cd)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
16	Total Chromium (as Cr)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
17	Copper (as Cu)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
18	Iron (as Fe)	mg/L	BDL	BDL	0.35	BDL	2.97	1.55
19	Lead (as Pb)	mg/L	BDL	BDL	0.016	BDL	2.83	1.42
20	Manganese (as Mn)	mg/L	BDL	BDL	BDL	BDL	0.08	BDL
21	Zinc (as Zn)	mg/L	BDL	1138	0.09	BDL	0.10	0.05
22	Sodium (as Na)	mg/L	1542	30.1	1806	2191	2866	2543
23	Potassium (as K)	mg/L	23.8	4569	25.5	29.7	47.3	41.8
24	Chloride (as Cl)	mg/L	4344	330	4189	4047	6014	4893
25	Sulphate (as SO ₄)	mg/L	239	2.08	223	146	168	225
26	Fluoride (as F)	mg/L	1.75	0.09	2.77	3.49	4.3	3.1
27	Phosphate (as P)	mg/L	0.14	6.12	0.20	0.16	0.06	0.05
28	Nitrate (as NO ₃)	mg/L	5.6	BDL	7.64	8.13	3.98	5.52
29	Cyanide (as CN)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
30	Phenolic Compounds (As C ₆ H ₅ OH)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
31	Oil and Grease	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
32	Arsenic (as As)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
33	Mercury (as Hg)	mg/L	BDL	< 1.8	BDL	BDL	BDL	BDL
34	Total Coliforms	MPN Index/100mL	< 1.8	2	< 1.8	540	540	220

 COASTAL GUJARAT POWER LIMITED (A TATA POWER COMPANY)	Doc. No.		CGPL/FOR/ENV/09	
	Issue No.	01	Date	01/04/13
	Rev. No	00	Date	-
Half Yearly Ground Water Quality Monitoring Report				

Borewell No. 8 (Near Ash Pond):

Sr. No	Parameters	Unit	Apr, 13	May, 13	Jun, 13	Jul, 13	Aug, 13	Sept, 13
			01.04.13	01.05.13	01.06.13	01.07.13	01.08.13	02.09.13
1	Ground Water Level	Ft (approx)	7.5	4	4	3.5	3	3
2	Colour	Hazen Units	2	3	1	1	2	1.0
3	Turbidity	NTU	0.7	1.2	0.3	1.2	2.2	1.5
4	pH	-	8.19	8.44	7.93	7.42	7.59	7.74
5	Electrical Conductivity (at 25 ^o C)	µmhos/cm	9420	10270	10921	10313	7977	6754
6	Suspended Solids	mg/L	10.0	13.0	3.0	8.0	9	5.0
7	Total Dissolved Solids	mg/L	5822	6112	6926	6716	4950	4152
8	BOD (3 days at 27 ^o C)	mg/L	7.0	6.0	BDL	BDL	BDL	BDL
9	COD	mg/L	22.0	17.0	9.0	9.0	10	9
10	Alkalinity (as CaCO ₃)	mg/L	280	266	280	166	158	142
11	Carbonate (as CaCO ₃)	mg/L	9.9	25.6	N.D.	N.D.	N.D.	N.D.
12	Total Hardness(as CaCO ₃)	mg/L	387	298	365	425	366	311
13	Calcium (as Ca)	mg/L	71.6	69.5	78.4	81.0	68.8	60.9
14	Magnesium (as Mg)	mg/L	50.1	32.3	42.1	54.6	47.3	38.7
15	Cadmium (as Cd)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
16	Total Chromium (as Cr)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
17	Copper (as Cu)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
18	Iron (as Fe)	mg/L	BDL	BDL	0.64	BDL	BDL	0.08
19	Lead (as Pb)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
20	Manganese (as Mn)	mg/L	BDL	BDL	BDL	BDL	BDL	0.02
21	Zinc (as Zn)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
22	Sodium (as Na)	mg/L	1059	742	1046	1743	1401	1286
23	Potassium (as K)	mg/L	20.5	19.7	20.7	23.8	19.9	14.9
24	Chloride (as Cl)	mg/L	3053	3728	3865	3572	2736	2212
25	Sulphate (as SO ₄)	mg/L	197	310	215	123	109	138
26	Fluoride (as F)	mg/L	1.13	1.87	2.56	3.26	3.45	2.55
27	Phosphate (as P)	mg/L	0.51	0.32	0.25	0.15	0.33	0.20
28	Nitrate (as NO ₃)	mg/L	8.01	7.44	8.51	10.0	10.5	15.4
29	Cyanide (as CN)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
30	Phenolic Compounds (As C ₆ H ₅ OH)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
31	Oil and Grease	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
32	Arsenic (as As)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
33	Mercury (as Hg)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
34	Total Coliforms	MPN Index/100mL	< 1.8	< 1.8	< 1.8	27	26	39

 COASTAL GUJARAT POWER LIMITED (A TATA POWER COMPANY)	Doc. No.		CGPL/FOR/ENV/09	
	Issue No.	01	Date	01/04/13
	Rev. No	00	Date	-
Half Yearly Ground Water Quality Monitoring Report				

Borewell No. 9 (Near Ash Pond):

Sr. No	Parameters	Unit	Apr, 13	May, 13	Jun, 13	Jul, 13	Aug, 13	Sept, 13
			01.04.13	01.05.13	01.06.13	01.07.13	01.08.13	02.09.13
1	Ground Water Level	Ft (approx)	5.0	5.0	5.0	5.0	4	4
2	Colour	Hazen Units	1	2	1	1	2	1.0
3	Turbidity	NTU	0.5	0.9	0.1	0.3	2.3	1.1
4	pH	-	7.95	8.25	8.39	8.02	8.21	8.36
5	Electrical Conductivity (at 25 ^o C)	µmhos/cm	4676	4672	4644	3775	3001	2890
6	Suspended Solids	mg/L	6.0	10.0	BDL	BDL	8.0	6.0
7	Total Dissolved Solids	mg/L	2820	2794	2820	2182	1952	1734
8	BOD (3 days at 27 ^o C)	mg/L	6.0	4.0	BDL	BDL	BDL	BDL
9	COD	mg/L	17.0	12.0	6.0	10.0	10.0	13.0
10	Alkalinity (as CaCO ₃)	mg/L	672	668	679	537	420	379
11	Carbonate (as CaCO ₃)	mg/L	N.D.	25.9	95.5	N.D.	N.D.	N.D.
12	Total Hardness(asCaCO ₃)	mg/L	302	228	243	225	202	200
13	Calcium (as Ca)	mg/L	36.3	31.1	26.3	27.2	25.8	25.6
14	Magnesium (as Mg)	mg/L	51.6	36.5	43.0	38.3	33.4	33.0
15	Cadmium (as Cd)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
16	Total Chromium (as Cr)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
17	Copper (as Cu)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
18	Iron (as Fe)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
19	Lead (as Pb)	mg/L	BDL	BDL	0.54	BDL	BDL	0.008
20	Manganese (as Mn)	mg/L	BDL	BDL	0.03	BDL	BDL	0.02
21	Zinc (as Zn)	mg/L	BDL	BDL	BDL	BDL	BDL	0.05
22	Sodium (as Na)	mg/L	933	656	768	688	600	550
23	Potassium (as K)	mg/L	10.3	8.03	6.47	5.64	4.48	4.50
24	Chloride (as Cl)	mg/L	1072	1136	1113	858	679	645
25	Sulphate (as SO ₄)	mg/L	174	226	171	102	87.6	101
26	Fluoride (as F)	mg/L	2.57	2.99	3.85	5.03	5.15	4.58
27	Phosphate (as P)	mg/L	0.37	0.33	0.23	0.30	0.26	0.33
28	Nitrate (as NO ₃)	mg/L	11.8	13.3	14.9	11.2	8.92	12.7
29	Cyanide (as CN)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
30	Phenolic Compounds (As C ₆ H ₅ OH)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
31	Oil and Grease	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
32	Arsenic (as As)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
33	Mercury (as Hg)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
34	Total Coliforms	MPN Index/100mL	540	350	220	11	17	21.0

 COASTAL GUJARAT POWER LIMITED (A TATA POWER COMPANY)	Doc. No.		CGPL/FOR/ENV/09	
	Issue No.	01	Date	01/04/13
	Rev. No	00	Date	-
Half Yearly Ground Water Quality Monitoring Report				

Borewell No. 10 (Near Ash Pond):

Sr. No	Parameters	Unit	Apr, 13	May, 13	Jun, 13	Jul, 13	Aug, 13	Sept, 13
			01.04.13	01.05.13	01.06.13	01.07.13	01.08.13	02.09.13
1	Ground Water Level	Ft (approx)	13.5	9	9	9	8.5	9.5
2	Colour	Hazen Units	1	2	2	1	3	2.0
3	Turbidity	NTU	0.1	1.8	2.7	0.4	2.7	1.6
4	pH	-	7.86	7.74	8.04	7.92	8.24	8.36
5	Electrical Conductivity (at 25 ^o C)	µmhos/cm	5158	5357	4989	4552	3811	3801
6	Suspended Solids	mg/L	4.0	14.0	12.0	5.0	10.0	5.0
7	Total Dissolved Solids	mg/L	3146	3213	2958	2884	2542	2282
8	BOD (3 days at 27 ^o C)	mg/L	6.0	7.0	6.0	BDL	BDL	BDL
9	COD	mg/L	17.0	21.0	18.0	BDL	11	6.0
10	Alkalinity (as CaCO ₃)	mg/L	599	593	644	649	453	463
11	Carbonate (as CaCO ₃)	mg/L	N.D.	N.D.	31.8	N.D.	N.D.	N.D.
12	Total Hardness(as CaCO ₃)	mg/L	335	294	283	304	264	260
13	Calcium (as Ca)	mg/L	54.6	56.1	44.3	36.7	38.8	32.1
14	Magnesium (as Mg)	mg/L	36.3	31.3	40.2	50.8	40.1	43.7
15	Cadmium (as Cd)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
16	Total Chromium (as Cr)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
17	Copper (as Cu)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
18	Iron (as Fe)	mg/L	BDL	BDL	BDL	BDL	BDL	0.08
19	Lead (as Pb)	mg/L	BDL	BDL	0.57	BDL	BDL	0.008
20	Manganese (as Mn)	mg/L	0.05	0.07	BDL	BDL	BDL	0.02
21	Zinc (as Zn)	mg/L	BDL	BDL	BDL	BDL	BDL	0.07
22	Sodium (as Na)	mg/L	755	607	754	846	759	784
23	Potassium (as K)	mg/L	5.46	9.7	7.3	6.5	5.92	5.0
24	Chloride (as Cl)	mg/L	1470	1494	1273	1119	940	862
25	Sulphate (as SO ₄)	mg/L	158	204	150	104	100	124
26	Fluoride (as F)	mg/L	3.22	3.49	4.87	5.59	7.4	5.98
27	Phosphate (as P)	mg/L	0.88	1.69	1.04	0.44	0.52	0.28
28	Nitrate (as NO ₃)	mg/L	12.7	8.94	12.9	14.6	11.7	14.0
29	Cyanide (as CN)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
30	Phenolic Compounds (As C ₆ H ₅ OH)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
31	Oil and Grease	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
32	Arsenic (as As)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
33	Mercury (as Hg)	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
34	Total Coliforms	MPN Index/100mL	350	240	240	< 1.8	< 1.8	< 1.8

ANNEXURE 2
Green Belt Development Report

 COASTAL GUJARAT POWER LIMITED (A TATA POWER COMPANY)	Doc. No.		CGPL/FOR/ENV/10	
	Issue No.	01	Date	01/04/13
	Rev. No	00	Date	-
Green Belt Development Report				


Total Area Covered : 143.70 ha

Total Plants Planted : 300966 Nos.

Total Plants Survived : 294171 Nos.


Species wise details:

Sr. No.	Botanical Name	Local Name	Plants planted	Plants survived	Survival Rate
			Nos.	Nos.	%
1	Dalbergia Sissoo	Shisham	8511	8511	100
2	Calaspermaum Mopen	Mopen	4225	4225	100
3	Acacia Nelotica	Babool	8156	8100	99
4	Casuarina Equisetifolia	Saru	42042	42000	100
5	Ziziphus Mauritiana	Ber	2600	2600	100
6	Salvadora Percia	Piloo	1800	1800	100
7	Prosopis Cineraria	Khejdi	850	850	100
8	Azadirachta Indica	Neem	46333	46332	100
9	Pithecellobium Dulce	Mithi Iml	3405	3405	100
10	Delonix Regia	Gulmohar	2492	2492	100
11	Albizia Lebbeck	Shirish	765	756	99
12	Phyllanthus Emblica	Amla	300	300	100
13	Terminalia Catappa	Badam	215	215	100
14	Pongamia Pinnata	Karanj	1538	1500	98
15	Phoenix Dactyifera	Khajur(Dates)	453	417	92
16	Mangifera Indica	Mango	1500	267	18
17	Acacia Farnesiana	Acacia Farnesiana	900	900	100
18	Acacia Leucophloea	Harmobaval	900	900	100
19	Ailanthus Excelsa	Arduso	402	400	100
20	Ficus Carica	Anjir	5	5	100
21	Phyllanthus Acidus	Arfa Revdi	22	22	100
22	Terminalia Arjuna	Arjun Sadad	147	145	99
23	Saraca Ashoka	Asopalav	25	25	100
24	Cassia Ariculata	Aval	770	759	99
25	Manilkara Zapota	Chikoo	50	35	70
26	Punica Granatum	Dadam	200	182	91
27	Commiphora Mukul	Gugal	620	369	60
28	Psidium Guajava	Jamfal	100	85	85
29	Ceiba Pentandra	Kapok(Shimlo)	141	140	99
30	Nerium Indicum	Karen	19640	19550	100
31	Casia Siamiea	Kashid	300	150	50
32	Tamarindus Indica	Khiti Aml	50	50	100
33	Citrus Limon	Limbu	10	10	100
34	Cocus Nucifera	Nariyel	100	39	39
35	Thespesia Populnea	Paras Pipla	500	500	100

 COASTAL GUJARAT POWER LIMITED (A TATA POWER COMPANY)	Doc. No.		CGPL/FOR/ENV/10	
	Issue No.	01	Date	01/04/13
	Rev. No.	00	Date	-
Green Belt Development Report				

Sr. No.	Botanical Name	Local Name	Plants planted	Plants survived	Survival Rate
			Nos.	Nos.	%
36	Peltoforum	Peltoforum	13640	13640	100
37	Ficus Religiosa	Pipal	200	200	100
38	Parkinsonia Aculata	Rambaval	80	80	100
39	Tecoma Stans	Tecoma	305	305	100
40	Ceasalpinia Pulcherima	Galtoro	4457	4457	100
41	Grevillea Robusta	Silver Oak	2	2	100
42	Pterocarpus Santalinus	Red Sandal Wood	2	2	100
43	<i>Syzygium Cumini</i>	Jamun	2	2	100
44	Plumeria Alba	Champa	1	1	100
45	Clerodendron Ermie		60000	60000	100
46	Nerium Pink & White		6900	6500	94
47	Nerium Dwarf		5700	5650	99
48	Bougainvillea		8750	8350	95
49	Ficus Blacky		2320	250	11
50	Albezia Procera	Safed Siris	500	500	100
51	Samanea Saman	Rain Tree	92	90	98
52	Assia Javanica		180	88	49
53	Thivetia Peruviana	Bitti	28718	28718	100
54	Alstonioa Scholaris		800	350	44
55	Acacia Mangium		10436	10436	100
56	Thumbergia Grandiflora		500	200	40
57	Quisqualis Indica		500	250	50
58	Adenocalymma Alliaceum		500	100	20
59	Ipomea Morning Glory		500	150	30
60	Lecena Lucocephala	Su babul	5814	5814	100

ANNEXURE 3
Noise Level Monitoring Report

 COASTAL GUJARAT POWER LIMITED (A TATA POWER COMPANY)	Doc. No.		CGPL/FOR/ENV/11	
	Issue No.	01	Date	01/04/13
	Rev. No	00	Date	-
Noise Level Monitoring Report				

Date	Time	Unit	Project Site Near CGPL Hostel	Project site Near STP Gate	Project Site Near Intake Channel	Project Site Near Main Gate
13.04.13	Day	dB(A)	56.0	62.5	58.7	63.3
	Night	dB(A)	51.0	53.8	53.1	54.8
17.05.13	Day	dB(A)	56.7	63.0	58.9	63.8
	Night	dB(A)	52.1	56.2	53.6	55.1
14.06.13	Day	dB(A)	56.4	62.7	58.8	63.2
	Night	dB(A)	51.5	55.3	53.7	55.0
14.07.13	Day	dB(A)	56.0	60.8	57.5	62.3
	Night	dB(A)	51.2	55.0	52.0	55.4
13.08.13	Day	dB(A)	55.3	60.0	57.2	61.4
	Night	dB(A)	50.9	54.8	51.8	55.0
10.09.13	Day	dB(A)	55.1	59.4	57.0	60.8
	Night	dB(A)	50.4	50.0	52.0	54.8

ANNEXURE 4
Ambient Air Quality Monitoring
Report


 COASTAL GUJARAT POWER LIMITED (A TATA POWER COMPANY)	Doc. No.		CGPL/FOR/ENV/12	
	Issue No.	01	Date	01/11/12
	Rev. No	00	Date	01/04/13
Ambient Air Quality Monitoring Report				

Table 1:

Location: Date of Sampling	Project Site, Nr. CGPL Hostel				Project Site, Nr. Labour Colony			
	SO ₂ µg/m ³	NO _x µg/m ³	PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO _x µg/m ³	PM ₁₀ µg/m ³	PM _{2.5} µg/m ³
22/03/13	6.3	7.8	142	32.9	6.5	8.2	145	43.2
25/03/13	6.5	8.1	148	37.5	6.8	8.4	153	41.5
27/03/13	6.8	8.2	154	36.4	7.1	8.9	157	44.5
29/03/13	6.1	7.6	158	31.1	6.3	8.6	164	42.1
01/04/13	6.7	8.1	151	32.8	6.2	8.3	169	38.9
03/04/13	6.4	8.0	163	31.4	6.5	8.7	172	34.6
05/04/13	6.6	8.4	172	33.2	6.4	8.3	193	37.8
08/04/13	7.1	8.6	195	39.8	6.9	8.7	187	35.7
10/04/13	6.8	8.3	175	46.6	7.1	8.8	174	32.3
12/04/13	6.2	7.6	150	45.9	6.5	8.6	169	31.4
15/04/13	6.0	7.4	155	48.7	6.8	8.5	151	42.1
17/04/13	6.7	8.3	152	49.5	6.9	8.8	145	44.5
19/04/13	6.4	8.2	152	46.6	7.2	9.1	153	29.8
22/04/13	6.1	7.5	142	31.1	5.5	6.6	145	37.8
24/04/13	6.4	7.8	148	37.9	6.0	6.9	153	43.2
26/04/13	5.9	7.4	154	37.5	5.8	6.8	157	42.1
29/04/13	6.3	7.7	148	36.4	6.3	7.5	164	45.3
01/05/13	5.7	7.1	151	36.7	6.2	7.3	149	41.5
03/05/13	5.4	6.8	153	33.2	5.3	6.5	142	34.6
06/05/13	6.0	7.2	142	31.4	5.7	6.9	153	44.5
08/05/13	5.8	7.1	165	49.8	6.1	7.3	147	38.9
10/05/13	6.2	7.3	155	46.6	5.6	6.9	134	32.3
13/05/13	5.5	6.7	143	32.9	5.9	7.3	146	41.2
15/05/13	5.4	6.6	151	39.8	6.3	7.4	149	43.7
17/05/13	5.7	6.9	146	32.8	5.9	6.9	147	40.8
20/05/13	6.2	7.6	149	39.1	6.1	7.4	144	35.7
22/05/13	5.6	7.8	142	43.2	6.2	7.5	6.2	7.5
24/05/13	4.2	5.4	149	45.7	5.6	6.8	5.6	6.8
27/05/13	4.6	6.2	152	49.7	5.8	6.6	5.8	6.6
29/05/13	5.4	7.3	134	32.6	5.3	6.8	5.3	6.8
31/05/13	4.5	5.7	141	45.2	6.5	7.4	6.5	7.4
03/06/13	4.8	6.4	147	42.3	4.9	5.3	4.9	5.3
05/06/13	4.2	5.2	144	45.9	5.9	7.1	5.9	7.1
07/06/13	5.5	6.8	139	43.4	6.6	7.2	6.6	7.2
10/06/13	4.2	5.9	152	48.7	6.3	6.8	6.3	6.8
12/06/13	5.1	6.3	141	41.8	6.7	7.9	6.7	7.9
17/06/13	4.3	5.6	134	37.9	5.7	6.9	5.7	6.9
19/06/13	4.5	6.7	131	32.8	4.1	5.8	4.1	5.8
21/06/13	4.7	5.9	147	42.5	5.6	6.7	142	36.3
24/06/13	5.8	6.3	145	36.9	4.3	5.6	147	43.2



COASTAL GUJARAT POWER LIMITED
(A TATA POWER COMPANY)

Doc. No.	CGPL/FOR/ENV/12		
Issue No.	01	Date	01/11/12
Rev. No	00	Date	01/04/13

Ambient Air Quality Monitoring Report

Location: Date of Sampling	Project Site, Nr. CGPL Hostel				Project Site, Nr. Labour Colony			
	SO ₂ µg/m ³	NO _x µg/m ³	PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO _x µg/m ³	PM ₁₀ µg/m ³	PM _{2.5} µg/m ³
26/06/13	5.4	6.9	141	35.4	5.2	5.9	151	46.7
28/06/13	4.9	6.7	146	37.8	6.1	6.9	145	44.2
01/07/13	5.1	6.5	149	41.6	5.7	7.2	141	39.8
03/07/13	4.7	5.5	140	39.3	6.4	7.7	135	31.5
05/07/13	4.2	5.1	131	29.5	4.2	5.0	130	27.6
08/07/13	4.5	5.7	137	39.2	5.5	6.7	139	32.8
10/07/13	4.2	5.3	138	35.8	4.8	5.7	139	31.5
12/07/13	4.4	5.5	136	32.1	4.2	5.3	134	29.7
15/07/13	4.3	5.6	132	34.9	4.3	5.6	135	32.7
17/07/13	4.2	5.7	130	31.8	4.5	5.7	139	31.8
19/07/13	4.5	5.9	133	33.8	5.7	6.9	131	32.1
22/07/13	5.9	5.5	103	22.6	4.7	5.1	106	23.6
24/07/13	6.3	5.3	145	43.6	5.1	4.9	145	40.6
26/07/13	6.9	6.2	135	40.2	5.5	5.2	155	50.2
29/07/13	6.2	5.6	92	20.8	4.4	5.0	93.1	19.7
31/07/13	5.8	6.3	134	31.6	5.3	5.5	154	48.6
02/08/13	5.5	5.1	108	24.3	4.9	5.1	103	20.3
05/08/13	6.2	5.7	130	34.3	5.1	4.9	153	46.3
07/08/13	6.9	6.3	141	38.6	4.7	5.4	151	48.6
09/08/13	6.1	5.6	149	43.9	5.0	5.3	144	41.7
12/08/13	5.6	5.2	113	26.7	4.3	4.7	102	21.7
14/08/13	6.3	5.7	142	39.2	5.1	4.9	141	36.5
16/08/13	6.7	5.9	139	32.7	5.4	5.2	147	37.4
19/08/13	6.9	6.4	140	32.2	5.7	5.8	136	34.5
21/08/13	6.5	5.9	98.5	23.8	5.2	5.6	94.9	22.6
23/08/13	6.1	5.2	128	26.5	5.4	5.3	142	39.8
26/08/13	6.3	5.6	135	34.2	5.6	5.8	143	43.2
28/08/13	5.9	5.1	143	40.1	5.1	5.4	146	39.9
30/08/13	5.4	5.7	151	48.4	5.3	5.5	149	39.9
02/09/13	5.5	5.3	154	49.7	5.4	5.6	146	43.4
04/09/13	6.1	5.7	135	38.6	5.8	5.2	128	30.1
06/09/13	6.7	6.0	104	24.5	5.7	5.3	132	33.5
09/09/13	6.5	5.9	96.6	22.4	5.5	5.6	97.1	23.6
11/09/13	5.8	5.7	148	45.6	4.9	5.3	141	41.6
13/09/13	6.6	6.9	124	21.5	5.9	6.4	116	25.9
16/09/13	6.5	6.1	97.4	20.7	5.4	5.1	96.1	24.5
18/09/13	6.8	6.0	95.2	17.9	5.6	5.3	98.5	26.1
20/09/13	6.7	6.3	98.1	27.3	5.4	5.1	94.6	23.7

 COASTAL GUJARAT POWER LIMITED (A TATA POWER COMPANY)	Doc. No.		CGPL/FOR/ENV/12	
	Issue No.	01	Date	01/11/12
	Rev. No	00	Date	01/04/13
Ambient Air Quality Monitoring Report				

Table 2:

Date of Sampling	Location: Project Site, Nr. Site Office											
	PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NOx µg/m ³	NH ₃ µg/m ³	O ₃ µg/m ³	CO µg/m ³	C ₆ H ₆ µg/m ³	BaP ng/m ³	Pb µg/m ³	As ng/m ³	Ni ng/m ³
22/03/13	147	44.5	8.1	9.9	BDL	BDL	1260	BDL	BDL	BDL	BDL	BDL
25/03/13	142	42.5	7.6	9.4	BDL	BDL	1145	BDL	BDL	BDL	BDL	BDL
27/03/13	146	43.6	8.4	10.4	BDL	BDL	1031	BDL	BDL	BDL	BDL	BDL
29/03/13	152	46.6	8.3	10.2	BDL	BDL	1031	BDL	BDL	BDL	BDL	BDL
01/04/13	150	45.9	7.8	9.8	BDL	BDL	1031	BDL	BDL	BDL	BDL	BDL
03/04/13	155	48.7	7.5	9.5	BDL	BDL	1145	BDL	BDL	BDL	BDL	BDL
05/04/13	162	49.5	8.1	9.9	BDL	BDL	1260	BDL	BDL	BDL	BDL	BDL
08/04/13	170	47.6	8.6	10.7	BDL	BDL	1145	BDL	BDL	BDL	BDL	BDL
10/04/13	185	44.8	8.4	10.5	BDL	BDL	916	BDL	BDL	BDL	BDL	BDL
12/04/13	179	32.3	7.9	9.9	BDL	BDL	1145	BDL	BDL	BDL	BDL	BDL
15/04/13	161	41.8	7.7	9.8	BDL	BDL	1260	BDL	BDL	BDL	BDL	BDL
17/04/13	163	44.9	7.6	9.4	BDL	BDL	1145	BDL	BDL	BDL	BDL	BDL
19/04/13	151	48.3	8.5	10.3	BDL	BDL	916	BDL	BDL	BDL	BDL	BDL
22/04/13	145	44.8	7.7	9.4	BDL	BDL	916	BDL	BDL	BDL	BDL	BDL
24/04/13	141	43.6	7.9	9.8	BDL	BDL	1145	BDL	BDL	BDL	BDL	BDL
26/04/13	144	45.9	8.2	10.1	BDL	BDL	1260	BDL	BDL	BDL	BDL	BDL
29/04/13	151	49.5	7.8	9.6	BDL	BDL	802	BDL	BDL	BDL	BDL	BDL
01/05/13	152	47.6	7.3	8.8	BDL	BDL	687	BDL	BDL	BDL	BDL	BDL
03/05/13	153	49.5	8.1	9.9	BDL	BDL	1145	BDL	BDL	BDL	BDL	BDL
06/05/13	143	43.4	7.8	9.8	BDL	BDL	1260	BDL	BDL	BDL	BDL	BDL
08/05/13	140	42.5	8.3	10.5	BDL	BDL	1145	BDL	BDL	BDL	BDL	BDL
10/05/13	145	44.5	7.8	10.1	BDL	BDL	1031	BDL	BDL	BDL	BDL	BDL
13/05/13	155	46.6	8.0	10.3	BDL	BDL	916	BDL	BDL	BDL	BDL	BDL
15/05/13	147	48.7	7.6	9.5	BDL	BDL	1260	BDL	BDL	BDL	BDL	BDL
17/05/13	155	48.6	7.5	9.3	BDL	BDL	1145	BDL	BDL	BDL	BDL	BDL
20/05/13	152	47.9	8.1	9.8	BDL	BDL	802	BDL	BDL	BDL	BDL	BDL
22/05/13	153	44.5	5.9	7.2	BDL	BDL	1031	BDL	BDL	BDL	BDL	BDL
24/05/13	147	38.9	6.4	7.8	BDL	BDL	916	BDL	BDL	BDL	BDL	BDL
27/05/13	134	32.3	6.8	8.1	BDL	BDL	802	BDL	BDL	BDL	BDL	BDL
29/05/13	146	41.2	5.7	6.6	BDL	BDL	687	BDL	BDL	BDL	BDL	BDL
31/05/13	149	43.7	7.2	8.8	BDL	BDL	916	BDL	BDL	BDL	BDL	BDL
03/06/13	147	40.8	4.9	6.2	BDL	BDL	573	BDL	BDL	BDL	BDL	BDL
05/06/13	156	48.9	5.7	7.3	BDL	BDL	1031	BDL	BDL	BDL	BDL	BDL
07/06/13	152	48.5	6.2	7.7	BDL	BDL	802	BDL	BDL	BDL	BDL	BDL
10/06/13	144	41.2	6.3	7.8	BDL	BDL	1145	BDL	BDL	BDL	BDL	BDL
12/06/13	153	48.7	6.6	8.0	BDL	BDL	916	BDL	BDL	BDL	BDL	BDL
17/06/13	159	49.6	5.8	7.2	BDL	BDL	802	BDL	BDL	BDL	BDL	BDL
19/06/13	152	48.7	5.1	6.9	BDL	BDL	1031	BDL	BDL	BDL	BDL	BDL
21/06/13	152	44.8	6.4	7.7	BDL	BDL	1145	BDL	BDL	BDL	BDL	BDL
24/06/13	155	49.4	6.5	8.2	BDL	BDL	916	BDL	BDL	BDL	BDL	BDL



COASTAL GUJARAT POWER LIMITED
(A TATA POWER COMPANY)

Doc. No.	CGPL/FOR/ENV/12		
Issue No.	01	Date	01/11/12
Rev. No	00	Date	01/04/13

Ambient Air Quality Monitoring Report

Date of Sampling	Location: Project Site, Nr. Site Office											
	PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO _x µg/m ³	NH ₃ µg/m ³	O ₃ µg/m ³	CO µg/m ³	C ₆ H ₆ µg/m ³	BaP ng/m ³	Pb µg/m ³	As ng/m ³	Ni ng/m ³
26/06/13	149	43.6	5.6	7.0	BDL	BDL	1031	BDL	BDL	BDL	BDL	BDL
28/06/13	151	46.1	5.3	7.6	BDL	BDL	802	BDL	BDL	BDL	BDL	BDL
01/07/13	148	43.6	4.9	6.4	BDL	BDL	1031	BDL	BDL	BDL	BDL	BDL
03/07/13	139	32.1	6.9	8.3	BDL	BDL	1031	BDL	BDL	BDL	BDL	BDL
05/07/13	130	36.8	5.2	7.0	BDL	BDL	687	BDL	BDL	BDL	BDL	BDL
08/07/13	141	42.0	6.1	7.3	BDL	BDL	916	BDL	BDL	BDL	BDL	BDL
10/07/13	134	37.8	4.9	6.1	BDL	BDL	802	BDL	BDL	BDL	BDL	BDL
12/07/13	131	35.4	4.6	5.8	BDL	BDL	573	BDL	BDL	BDL	BDL	BDL
15/07/13	135	37.4	4.4	5.6	BDL	BDL	802	BDL	BDL	BDL	BDL	BDL
17/07/13	139	37.9	4.9	5.8	BDL	BDL	687	BDL	BDL	BDL	BDL	BDL
19/07/13	149	41.2	6.2	7.8	BDL	BDL	1031	BDL	BDL	BDL	BDL	BDL
22/07/13	103	23.2	5.2	5.9	BDL	BDL	802	BDL	BDL	BDL	BDL	BDL
24/07/13	141	36.8	6.1	5.7	BDL	BDL	916	BDL	BDL	BDL	BDL	BDL
26/07/13	133	29.9	6.5	5.9	BDL	BDL	1031	BDL	BDL	BDL	BDL	BDL
29/07/13	92	21.3	5.4	5.7	BDL	BDL	687	BDL	BDL	BDL	BDL	BDL
31/07/13	142	41.1	5.7	6.1	BDL	BDL	802	BDL	BDL	BDL	BDL	BDL
02/08/13	104	25.9	5.3	5.5	BDL	BDL	573	BDL	BDL	BDL	BDL	BDL
05/08/13	131	31.0	5.9	6.1	BDL	BDL	687	BDL	BDL	BDL	BDL	BDL
07/08/13	145	43.2	6.5	6.2	BDL	BDL	916	BDL	BDL	BDL	BDL	BDL
09/08/13	148	44.7	6.8	5.9	BDL	BDL	1031	BDL	BDL	BDL	BDL	BDL
12/08/13	101	23.0	5.8	5.5	BDL	BDL	573	BDL	BDL	BDL	BDL	BDL
14/08/13	139	32.3	6.1	5.7	BDL	BDL	802	BDL	BDL	BDL	BDL	BDL
16/08/13	141	36.7	5.9	5.5	BDL	BDL	1031	BDL	BDL	BDL	BDL	BDL
19/08/13	145	37.9	6.7	6.0	BDL	BDL	1145	BDL	BDL	BDL	BDL	BDL
21/08/13	97.3	24.3	6.3	5.7	BDL	BDL	916	BDL	BDL	BDL	BDL	BDL
23/08/13	148	41.3	5.9	5.6	BDL	BDL	573	BDL	BDL	BDL	BDL	BDL
26/08/13	137	34.4	6.4	6.0	BDL	BDL	802	BDL	BDL	BDL	BDL	BDL
28/08/13	131	28.9	6.6	6.2	BDL	BDL	916	BDL	BDL	BDL	BDL	BDL
30/08/13	139	34.5	6.1	5.8	BDL	BDL	802	BDL	BDL	BDL	BDL	BDL
02/09/13	140	41.3	6.3	5.7	BDL	BDL	687	BDL	BDL	BDL	BDL	BDL
04/09/13	144	40.3	5.9	5.5	BDL	BDL	573	BDL	BDL	BDL	BDL	BDL
06/09/13	121	31.4	6.8	6.1	BDL	BDL	1031	BDL	BDL	BDL	BDL	BDL
09/09/13	98.6	24.2	7.3	6.6	BDL	BDL	1260	BDL	BDL	BDL	BDL	BDL
11/09/13	118	29.7	7.0	6.3	BDL	BDL	1145	BDL	BDL	BDL	BDL	BDL
13/09/13	103	23.2	7.5	6.5	BDL	BDL	1031	BDL	BDL	BDL	BDL	BDL
16/09/13	97.3	24.6	5.9	5.3	BDL	BDL	687	BDL	BDL	BDL	BDL	BDL
18/09/13	99.5	28.6	7.2	6.4	BDL	BDL	1145	BDL	BDL	BDL	BDL	BDL
20/09/13	102	29.7	6.9	6.2	BDL	BDL	1031	BDL	BDL	BDL	BDL	BDL