

Compliance Report for 100 KLPD Ligno-cellulosic 2G Ethanol Plant at Village Baulsingha, Tehsil Bhatli, District Bargarh (Odisha) by M/s Bharat Petroleum Corporation Ltd.

EC letter No.: F. No. IA-J-11011/351/2017-IA-II (I) dated 10th August, 2018

As per the stipulations given in the Environmental Clearance the detailed compliance status is given below:

TERMS AND CONDITIONS

SR. NO.	TERMS AND CONDITION	STATUS AS ON 1st JUNE 2021
i.	Ethanol shall be used exclusively for fuel blending only.	Noted. Plant is under construction. After commissioning, Ethanol shall be used exclusively for fuel blending only.
ii.	Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.	Noted. Consent to Establish (CTE) has been obtained from State Pollution Control Board, Odisha vide Letter No. 11750 dtd. 29th September 2018 (<i>Refer Annexure-1</i>). Consent to Operate shall be applied for and obtained before commissioning of plant.
iii.	As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.	Noted. Plant is designed for Zero Liquid discharge. Same shall be ensured after commissioning of plant.
iv.	Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.	Noted. No hazardous waste shall be generated from Plant. Necessary authorizations required for solid waste, if any, shall be obtained.
v.	To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.	Noted. This has been considered in Plant design. The conditions shall be complied.
vi.	Total fresh water requirement shall not exceed 3192 cum/day, proposed to be met from Bargarh Canal.	Noted. The plant is under construction. The conditions shall be adhered.
vii.	Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through a separate conveyance system.	Noted. Plant is under construction. These conditions have been taken into consideration at the design stage and shall be implemented.

viii.	The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.	Noted. The MSIHC Rules, 1989 and MVA, 1989 shall be complied.
ix.	The company shall undertake waste minimization measures as below:- (a) Metering and control of quantities of active ingredients to minimize waste. (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation	Noted. Waste minimization measures are being implemented in plant design.
x.	The green belt of 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.	Noted. Green belt shall be developed as per guidelines.
xi.	All the commitments made regarding issues raised during the public hearing/ consultation meeting shall be satisfactorily implemented.	Noted. All the commitments made during public hearing shall be satisfactorily implemented.
xii.	At least 1% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and the details along with time bound action plan shall be submitted to the Ministry's Regional Office.	Noted. 1% of the total project cost has been allocated for Corporate Environment Responsibility (CER). Plant is under construction. Time bound action plan shall be submitted to Ministry's Regional Office. The following CER activities are in progress: 1. Construction of crematorium platforms and boundary wall in crematorium ground, Pipalmunda. 2. Digging of tube well in front of crematorium ground, Pipalmunda. 3. Installation of 2 nos., 24 watt semi integrated Solar Street Light fittings in crematorium ground, Pipalmunda.

		<p>Further following CER activities are also planned for 2021-2022 subject to approval from administration</p> <ol style="list-style-type: none"> 1. Infrastructure development of Primary school at Baulsingha village. 2. Provision of Solar Street Lighting for Gram Panchayat, Tejagola.
xiii.	For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.	Noted. The conditions are being implemented in plant design and shall be complied.
xiv.	The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms.	Noted. Adequate arrangement for protection of fire hazards is being implemented in plant design as per norms. The conditions shall be complied.
xv.	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	Noted. Being complied.
xvi.	There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.	Noted. Adequate parking space is under development. The conditions shall be complied.
xvii.	Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.	Noted. The conditions shall be complied.
xviii.	Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.	Noted. Continuous online monitoring systems for stack emissions have been provided in design and shall be implemented. This is a Zero Liquid Discharge plant hence no effluent shall be discharged from premises. The conditions shall be complied.
xix.	CO ₂ generated from the process shall be bottled/made solid ice and sold to authorized vendors.	Noted. The conditions shall be complied.

GENERIC CONDITIONS

SR. NO.	GENERAL CONDITION	STATUS AS ON 1st JUNE 2021
i.	The project authorities must strictly adhere to the stipulations made by the State pollution Control	Noted & being complied.

	Board, Central Pollution Control Board, State Government and any other statutory authority.	
ii.	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	Noted.
iii.	The locations of ambient air quality monitoring stations shall be decided in consultation with the State Pollution Control Board (SPCB) and it shall be ensured that at least one station each is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.	Noted. Ambient Air quality monitoring shall be done in consultation with SPCB.
iv.	The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.	Noted. The conditions shall be complied.
v.	The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environment (Protection) Act, 1986 Rules, '1989 viz. 75 dBA (day time) and 70 dBA (night time).	Noted. The conditions shall be complied.
vi.	The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and use the same water for the process activities of the project to conserve fresh water.	Noted. Rain Water harvesting systems have been considered in plant design and shall be implemented.
vii.	Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.	Noted. Being complied.
viii.	The company shall also comply with all the environmental protection measures and	Noted. The condition shall be complied.

	safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.	
ix.	The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. ESC activities shall be undertaken by involving local villages and administration.	Noted. All relevant measures/ESC activities shall be undertaken as per company guidelines.
x.	The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.	Noted. Eco-developmental & community welfare measures shall be undertaken as per company guidelines.
xi.	The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management pollution control measures shall not be diverted for any other purpose.	Noted. Sufficient funds has been earmarked to implement Environment Management Plan. The conditions shall be complied.
xii.	A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, ZillaParishad/ Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.	EC has been published on BPCL Corporate Website. https://www.bharatpetroleum.com/Sustainability/Environmental-Clearance.aspx
xiii.	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.	Noted. EC and six monthly Compliance Report for June/December 2019 & June 2020 has been published on BPCL Corporate Website. Copy of the six monthly Compliance Report for June/December 2019 & June 2020 has been sent to SPCB, Regional office. The condition shall be complied.
xiv.	The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the	Noted. The plant is under construction. Form-V shall be submitted annually after plant commissioning.

	website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.	
xv.	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry at http://moef.nic.in . This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.	Complied. Subsequent to obtaining Environment Clearance from MoEF for project, the same was published in two newspapers (Times of India in English & Prameya in Odia) on 23 rd August 2018. (<i>Refer Annexure-2 & 2a</i>). Copy of the advertisement was forwarded to SPCB, Regional office.
xvi.	The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.	Noted. Plant under construction.

Annexure-1

Consent to Establish received from SPCB, Odisha



FAX : 2562822/2560955
Tel : 2564033/2563924
EPABX : 2561909/2562847
E-mail: paribesh1@ospcboard.org
Web site : www.ospcboard.org

**OFFICE OF THE
STATE POLLUTION CONTROL BOARD, ODISHA**

(Department of Forest & Environment, Govt. of Odisha)
Paribesh Bhawan, A/118, Nilakantha Nagar, Unit-VIII
Bhubaneswar – 751012

BY REGD POST

No. 11750 /

IND-II-NOC - 6186

Date 29.09.2018

OFFICE MEMORANDUM

In consideration of the online application no. **2172150** for obtaining Consent to Establish for **M/s Bharat Petroleum Corporation Ltd.**, the State Pollution Control Board is pleased to convey its Consent to Establish under section 25 of Water (Prevention & Control of Pollution) Act, 1974 and section 21 of Air (Prevention & Control of Pollution) Act, 1981 for **establishment of Ligno-Cellulosic 2G Ethanol Plant for production of fuel grade Ethanol (2G Ethanol) of capacity 100 KLPD with project cost of ₹ 747.46 Crores over an area of 58.44 acres, At - Baulsingha, Tahasil – Bhatli (Plot No. & Khata No. as mentioned in the application form)** in the district of **Bargarh** with the following conditions.

GENERAL CONDITIONS:

1. This Consent to Establish is valid for the raw materials, product, manufacturing process and capacity mentioned in the application form. This order is valid for five years. The proponent shall commence construction of the project within a period of five years from the date of issue of this order. If the proponent fails to do substantial physical progress of the project within five years then a renewal of this consent to establish shall be sought by the proponent.
2. The industry shall comply to the provisions of Environment Protection Act, 1986 and the rules made there under with their amendments from time to time such as the Hazardous and Other Wastes (Management and Trans boundary Movement) Rules, 2016 and amendment thereof, Hazardous Chemical Rules / Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 etc. and amendments there under. The industry shall also comply to the provisions of Public Liability Insurance Act, 1991, if applicable.
3. The industry shall apply for grant of Consent to Operate under section 25/26 of Water (Prevention & Control of Pollution) Act, 1974 & Air (Prevention & Control of Pollution) Act, 1981 at least 3 (three) months before the commercial production and obtain Consent to Operate from this Board.
4. **This Consent to Establish is subject to statutory and other clearances from Govt. of Odisha and/or Govt. of India, as and when applicable.**



SPECIAL CONDITIONS:

A. GENERAL:

1. **The industry shall comply to the conditions stipulated in the Environmental Clearance obtained vide letter No. J-11011/351/2017-IA-II(I) dated 10.08.2018 from MoEF&CC, Govt. of India.**
2. **The industry shall implement the pollution control measures and safeguards as proposed in the Environment Management Plan (EMP) of Environment Impact Assessment (EIA) report and Risk Assessment Report (RAR).**
3. This Consent to Establish is granted for the capacity as mentioned above and any expansion in the capacity change or modification in the process addition, alternation any nature has to be undertaken with prior approval of the Board. For any change in the site or area fresh consent to establish has to be obtained from the Board. The proponent shall carry out construction activity as per approved lay out map (**copy enclosed**). If the proponent wants to change the approved plant layout map, they can submit a modified plant layout map with adequate justification for such modification.
4. The civil construction shall be carried out with the fly ash bricks. If the fly ash bricks are not available locally the civil construction may carried out with other bricks with prior intimation to the concerned Regional Office of SPC Board. A quarterly statement indicating the use of fly ash bricks during civil construction shall be submitted to the Board for record.
5. The unit shall obtain authorization from the Board under Hazardous and Other Wastes (Management and Trans boundary Movement) Rules, 2016 and amended thereafter.
6. The proponent shall comply to the provisions of E-Waste (Management) Rules, 2016 and amendment thereafter and shall handover e-waste to authorized collection centers/register dismantlers/ recyclers for proper disposal of e-waste.
7. The proponent shall comply the plastic waste generated from the premises as per the Plastic Waste Management Rules, 2016 and amendment thereafter.
8. All the plastic waste generated from industry as well as colony shall be co-processed in nearby cement kiln.
9. The construction and demolition wastes to be generated from the proposed project shall be disposed of in accordance with the provision under "Construction & Demolition Wastes Management Rules 2016".
10. All compliance shall be made with respect to manufacture, storage and import of Hazardous Chemical Rue, 1989 and amendment thereof and other provisions of E (P) Act, 1986.
11. Good housekeeping practices shall be followed to improve the work environment. All roads and shop floors shall be cleaned regularly.
12. **A green belt of adequate width and density preferably with local species along the periphery of the plant shall be raised so as to provide protection against particulates and noise. It must be ensured that at least 33% of the total land area shall be under permanent green cover. The proponent shall ensure the maintenance of green belt throughout the year and for all time to come. It is advised**



that they may engage professionals in this field for creation and maintenance of the green belt. An action plan for this purpose shall be prepared and shall be submitted accordingly.

13. There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places.
14. The industry shall take up adequate measure for routine health checkup of its employees / workers and the people residing in the neighborhood of the plant free of cost.
15. The company shall obtain all requisite clearance for fire safety and explosives and shall comply with the stipulation made by the respective authorities.
16. The Board may impose further condition or modify the conditions are stipulated in this order during installation and / or at the time of obtaining Consent to Operate and may revoke this order in case the stipulated conditions are not implemented and / or information is found to have been suppressed / wrongly furnished in the application form.
17. The unit shall abide by the provisions of Environment (Protection) Act, 1986 and rules framed thereunder.
18. No production activity shall commence prior to installation of all pollution control measures. In case it is found that the industry is operated without installation of adequate pollution control equipment, direction for closure shall be issued u/s 31 (A) of Air (PCP) Act, 1981 and / or u/s 33(A) of Water (PCP) Act, 1974 as the case may be without any further notice.

B. WATER:

19. Waste water generated from the unit shall be treated in full-fledged ETP. The treated effluent shall meet prescribed standard of **pH – 5.5 to 9.0, BOD – 30 mg/l and SS-100 mg/l** even though there will not any discharge. The treated effluent shall be completely reused in gardening / plantation or any other purpose.
20. The proponent shall adopt Zero Liquid Discharge (ZLD) concept and under no circumstances the waste water shall be discharged to outside the factory premises.
21. Rainwater harvesting structure shall be developed inside the plant premises and maximum efforts shall be made to reuse harvested rain water, with a definite plan and programme to reduce drawal of fresh water from the local water bodies Rainwater harvesting structure shall be included from the construction stage itself.
22. The domestic wastewater generated from the industry shall be treated in Sewage Treatment Plant to meet the following standards as notified by the MoEF&CC, Govt. of India vide G.S.R. 1265 (E), dated 13.10.2017. The treated water shall be reused for gardening and plantation. Under no circumstances there shall be any discharge of treated domestic waste water to outside the factory premises.

Sl. No.	Parameters	Standards
1.	pH	6.5-9.0
2.	BOD(mg/l)	30
3.	TSS(mg/l)	<100
4.	Fecal Coliform (MPN/100ml)	< 1000



C. AIR:

23. Necessary preventive measures shall be taken during construction phase so that the ambient air quality including noise shall conform to National Ambient Air Quality Standards and standards for noise in industrial area as per **Annexure-I**. Ambient Air Quality at the boundary of the plant premises shall meet the prescribed standards of the Board as per **Annexure - II**. The ambient air quality monitoring report shall be submitted to the Board every month.
24. Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emission.
25. Work zone area including the internal roads surrounding the plant shall be asphalted or concreted. Water spraying system shall be installed for regular spraying of water on roads and work zone to minimizing fugitive dust emission.
26. The transportation of raw material during construction and operation shall be carried out in covered trucks/ vehicles. The industry shall regulate vehicle movement inside the premises to avoid traffic congestion.
27. **CO₂ generated from the process shall be cleaned and liquefied. The liquefied CO₂ shall be sold to authorised vendors.**
28. **The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.**
29. Adequate air pollution control measures shall be provided in the stack attached to the boiler in order to meet the prescribed standard as per Environment (P) Act, 1986.
30. The unit shall provide suitable porthole and platform facilities in the stack attached to boiler for stack monitoring.
31. For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
32. The height of the stack attached to the D.G sets shall conform to the following:
$$H = h + 0.2\sqrt{KVA}$$

(Where, h = Height of the building where it is installed in meter
KVA = Capacity of D.G Set and H = Height of the stack in meter above ground level)
33. All Pollution control equipment may be provided with separate electricity meter and totalizer for continuous recording of power consumption. The amperage of the ID fan may also be recorded continuously. Non-functioning of Pollution control equipment should be recorded in the same logbook along with reasons for not running the Pollution Control Equipment.
34. Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration and the date to be transmitted to the CPCB and SPCB server.

D. SOLID WASTE & HAZARDOUS WASTE:

35. Hazardous wastes shall be stored under concrete platform with covered shed.



36. Solid Waste (Non-Hazardous) generated from the proposed project activity shall be disposed off properly without creating public nuisance.
37. Land disposable Hazardous Waste generated from the proposed project activity shall be sent to Common Hazardous Waste Treatment, Storage and Disposal Facility (CHWTSDF) for disposal.
38. The industry shall obtain authorization for management of Hazardous Waste as per provisions of Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016 as amended from time to time.

Encl: Approved plant lay out map and Annexures

29/9/18
MEMBER SECRETARY

To

**The DGM (Bio-fuels)
M/s Bharat Petroleum Corporation Ltd.,
Bharat Bhavan, 4 & 6,
Currimbhoy Road, Ballard Estate,
Mumbai – 400001.**

Memo No. 11751 /Date 29.09.2018

Copy forwarded to:

1. The Collector & District Magistrate, Bargarh.
2. The DFO, Bargarh.
3. The Director, Factories & Boiler, Bhubaneswar.
4. The Regional Officer, SPC Board, Sambalpur.
5. Consent to Operate Section, SPC Board, BBSR
6. Hazardous Waste Management Cell, SPC Board, BBSR
7. Copy to Guard file.

29/9/18
CHIEF ENV. ENGINEER

d/c

दिएगा।

1. जब कभी और जहाँ भी किसी अपने-अपने प्रवर्ग के लिये दो क्रमिक प्रदूषण दिनों पर मासिक मूल्य, ऊपर विनिर्दिष्ट सीमा से अधिक हो तो इसे निर्दिष्ट या निरंतर प्रदूषण का अतिरिक्त अन्वेषण कथाने के लिये पर्याप्त कारण समझा जावेगा।

[फा. सं. न्यू 15017/43/2007-सौ.पी.डब्ल्यू.]

रजनीश दुबे, संयुक्त सचिव

टिप्पण : मूल नियम भारत के राजपत्र में असाधारण सं.का.आ.844 (अ), तारीख 19 नवम्बर 1986 द्वारा प्रकाशित किये गये थे और पश्चात्कालीन संशोधन सं.का.आ.433 (अ), तारीख 18 अप्रैल 1987, सा.का.नि. 176 (अ), तारीख 2 अप्रैल 1996 और हाल में ही सा.का.नि. 97 (अ), तारीख 18 फरवरी 2009; सा.का.नि. 149 (अ), तारीख 4 मार्च, 2009; सा.का.नि. 512 (अ), तारीख 9 जुलाई, 2009; सा.का.नि. 543 (अ), तारीख 22 जुलाई, 2009; सा.का.नि. 596 (अ), तारीख 21 अगस्त, 2009; और सा.का.नि. 974 (अ) तारीख, 04 नवम्बर 2009 द्वारा प्रकाशित किए गए।

MINISTRY OF ENVIRONMENT AND FORESTS

NOTIFICATION

New Delhi, the 16th November, 2009

G.S.R. 826(E).— In exercise of the powers conferred by section 6 and section 25 of the Environment (Protection) Act, 1986 (29 of 1986), the Central Government hereby makes the following rules further to amend the Environment (Protection) Rules, 1986, namely:—

1. (1) These rules may be called the Environment (Protection) Seventh Amendment Rules, 2009.

(2) They shall come into force on the date of their publication in the Official Gazette.

2. In the Environment (Protection) Rules, 1986 (hereinafter referred to as the said rules), in rule 3, in sub-rule (3B), for the words, brackets, figures and letters, "in columns (3) to (5) of Schedule VII", the words, brackets, figures and letters "in columns (4) and (5) of Schedule VII" shall be substituted.

3. For Schedule VII to the said rules and entries relating thereto, the following Schedule and entries shall be substituted, namely:—

"[SCHEDULE VII]

[See rule 3(3B)]

NATIONAL AMBIENT AIR QUALITY STANDARDS

S. No.	Pollutant	Time Weighted Average	Concentration in Ambient Air		
			Industrial, Residential, Rural and Other Area	Ecologically Sensitive Area (notified by Central Government)	Methods of Measurement
(1)	(2)	(3)	(4)	(5)	(6)
1	Sulphur Dioxide (SO ₂), µg/m ³	Annual* 24 hours**	50 80	20 80	- Improved West and Clarke - Ultraviolet fluorescence
2	Nitrogen Dioxide (NO ₂), µg/m ³	Annual* 24 hours**	40 80	30 80	- Modified Jacob & Hochheiser (Na-Arsenite) - Chemiluminescence
3	Particulate Matter (size less than 10µm) or PM ₁₀ , µg/m ³	Annual* 24 hours**	60 100	60 100	- Gravimetric - TOEM - Beta attenuation
4	Particulate Matter (size less than 2.5µm) or PM _{2.5} , µg/m ³	Annual* 24 hours**	40 60	40 60	- Gravimetric - TOEM - Beta attenuation

(1)	(2)	(3)	(4)	(5)	(6)
5	Ozone (O ₃) µg/m ³	8 hours** 1 hour**	100 180	100 180	- UV photometric - Chemiluminescence - Chemical Method
6	Lead (Pb) µg/m ³	Annual* 24 hours**	0.50 1.0	0.50 1.0	- AAS /ICP method after sampling on EPM 2000 or equivalent filter paper - ED-XRF using Teflon filter
7	Carbon Monoxide(CO) mg/m ³	8 hours** 1 hour**	02 04	02 04	- Non Dispersive Infra Red (NDIR) spectroscopy
8	Ammonia(NH ₃) µg/m ³	Annual* 24 hours**	100 400	100 400	- Chemiluminescence - Indophenol blue method
9	Benzene (C ₆ H ₆) µg/m ³	Annual*	05	05	- Gas chromatography based continuous analyzer - Adsorption and Desorption followed by GC analysis
10	Benzo(a)Pyrene (BaP) - particulate phase only, ng/m ³	Annual*	01	01	- Solvent extraction followed by HPLC/GC analysis
11	Arsenic (As), ng/m ³	Annual*	06	06	- AAS /ICP method after sampling on EPM 2000 or equivalent filter paper
12	Nickel (Ni), ng/m ³	Annual*	20	20	- AAS /ICP method after sampling on EPM 2000 or equivalent filter paper

* Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

** 24 hourly or 08 hourly or 01 hourly monitored values, as applicable, shall be complied with 98% of the time in a year. 2% of the time, they may exceed the limits but not on two consecutive days of monitoring.

Note.— Whenever and wherever monitoring results on two consecutive days of monitoring exceed the limits specified above for the respective category, it shall be considered adequate reason to institute regular or continuous monitoring and further investigation.”

[F. No. Q-15017/43/2007-CPW]

RAJNEESH DUBE, Jt. Secy

Note.— The principal rules were published in the Gazette of India, Extraordinary vide number S.O.844(E), dated the 19th November, 1986; and subsequently amended vide numbers S.O. 433(E), dated the 18th April, 1987; G.S.R. 176 (E), dated the 2nd April 1996; and were recently amended vide numbers G.S.R. 97(E), dated the 18th February, 2009; G.S.R. 149(E), dated the 4th March, 2009; G.S.R. 512(E), dated the 9th July, 2009; G.S.R. 543(E), dated the 22nd July, 2009; G.S.R. 595(E), dated the 21st August, 2009; and G.S.R. 794(E), dated the 4th November, 2009.

ANNEXURE-II

SCHEDULE
(see rule 3(1) and 4(1))

Ambient Air Quality Standards in respect of Noise

Area Code	Category of Area/Zone	Limits in dB(A) Leq *	
		Day Time	Night Time
(A)	Industrial area	75	70
(B)	Commercial area	65	55
(C)	Residential area	55	45
(D)	Silence Zone	50	40

Note

1. Day time shall mean from 06:00 A.M. to 10:00 P.M.
2. Night time shall mean from 10:00 P.M. to 06:00 A.M.
3. Silence zone is defined as an area comprising not less than 100 meters around hospitals, educational institutions and courts. The silence zones are zones which are declared as such by the competent authority.
4. Mixed categories of areas may be declared as one of the four above mentioned categories by the competent authority.

*dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.

A "decibel" is a unit in which noise is measured.

"A", in dB(A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.

Leq : It is an energy mean of the noise level, over a specified period.

[F. No. Q-14012/1/96-CPA]
VIJAI SHARMA, R. Secy.

SCHEDULE
(see rule 3(l) and 4(l))

Ambient Air Quality Standards in respect of Noise

Area Code	Category of Area/Zone	Limits in dB(A) Leq *	
		Day Time	NightTime
(A)	Industrial area	75	70
(B)	Commercial area	65	55
(C)	Residential area	55	45
(D)	Silence Zone	50	40

Annexure-2

EC Advertisement Notice (English)

**कोलकाता पोर्ट ट्रस्ट
KOLKATA PORT TRUST
HALDIA DOCK COMPLEX**

E-Tender No.: KoPT/Haldia Dock Complex/ISCF Div/6918-19/ET/257 for "Widening of Concrete Road and Construction of Guard Wall along the Cargo Storage Plots including Drains beside the roads leading to Berth No. 13 from G.C. Berth Main Gate, Haldia Dock Complex, Haldia", Pre-bid Meeting on 30.08.2018 at 11.00 hrs. Last date of submission: 20.09.2018 up to 15.00 hrs. For details, please visit www.kolkataporttrust.gov.in

STEEL AUTHORITY OF INDIA LIMITED
Raw Materials Division
Industry House, 10, Camac Street, Kolkata - 700 017

Tender Notice: Hiring of 01 TATA Winger, 3200WB High Roof AC Ambulance of Model - 2014 or Later Model for 24x7 Hrs for BIM Hospital, P.O.: Terna, Dist. - Sursiktagarh-770 042, Odisha.
Tender No.: BIM/CC/18-19/NIT-094, Dt.: 20/08/2018.
Last date of sale of tender paper: 18/09/2018 up to 4:00 p.m.
Last date & time for submission of tender: 19/09/2018 up to 3:00 p.m.
Issuing authority: Manager (Mech.) CC, Barsua Iron Mines.
For details & downloading, visit www.saitenders.co.in

Registered Office: Ispat Bhawan, Lodi Road, New Delhi 110 002
Corporate Identity Number - L27109DL197300906454, Website: www.sail.co.in

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**भा.क.अ.प. - केन्द्रीय मात्स्यिकी शिक्षा संस्थान
ICAR - CENTRAL INSTITUTE OF FISHERIES EDUCATION**
F.No.32(164)Works/2017-18/F-29
CORRIGENDUM
Date: 21.08.2018

With reference to Advertisement F. No.32(164)Works/2018-19F-29 dated 07.08.2018 published on 10.08.2018 for Expression of Interest (EOI) for selection of Public Works Organizations (PWOs)/Public Sector Undertakings (PSUs) for "Construction of Office Building/Training Hall and Ponds/Concrete Tanks" at ICAR-CIFE's Regional Research and Training Centre (RRTC), Muzpur, Bihar; it is hereby informed that due to some administrative reasons, the last date for submission of bids has been extended up to 3.00 PM on 12.09.2018. For further details, please visit our website www.cife.edu.in and Central Public Procurement Portal www.eprocure.gov.in. Further updates and corrigendum, if any, shall be uploaded only on Institute's website and Central Public Procurement Portal.
Sr. Administrative Officer

**SECURITY PRINTING AND MINTING CORPORATION
OF INDIA LIMITED**
(Wholly owned by Government of India, A Mini Ratna - Category I CPSE)
Regd. Office : 16th Floor, Jawahar Vapar Bhawan, Janpath, New Delhi-110001

Notice Inviting Tender

No. CHO(HR)/Manpower/Admn./351-18/1 Date 23.08.2018

Security Printing & Minting Corporation of India Limited invites tender for engaging agency to provide 69 manpower (30-Assistants, 3-Drivers, 4-Housekeeping manpower & 26-Office Boy and 6- Security Guards (Without arms) for its Corporate Office, New Delhi. Sealed tenders may be sent latest by 24.09.2018 (Monday) upto 3.00PM. For Tender Form and other details please visit Company's website www.spmcil.com. Future Amendment/Corrigendum if any, will be published on website only.
Dy. Manager (HR)

Bharat Petroleum Corporation Limited
(A Govt. of India Enterprise)

Environment Clearance for Installation of 100 KLPD ligno-cellulosic 2G Ethanol Plant at Village Baulsingha, Bhatli Tehsil, Bargarh District, Odisha

Ministry of Environment, Forest & Climate Change has accorded Environment Clearance for Installation of 100 KLPD ligno-cellulosic 2G Ethanol Plant at Village Baulsingha, Bhatli Tehsil, Bargarh District, Odisha vide letter F. No. IA-J-11011/351/2017-IA-II(I) dated 10th August 2018.
Copy of Clearance letter issued by MoEF&CC is available with Odisha State Pollution Control Board and may also be seen at website of the Ministry of Environment, Forest and Climate Change at <http://www.moef.nic.in>
This is for the information of all concerned.

Enriching Lives, Enriching Business

नगर निगम जयपुर

ई-निविदा सूचना संख्या - 69 से 75/2018-19

केन्द्र एवं राज्य सरकार के तन्वी विभागों में पंजीकृत/उपयुक्त भेजी जा रहे/कायदे एवं मानक विवरण; जयपुर के पंजीकृत निविदादातों से अधिशासी अधिकारता (साधारणतः कोन) से संबंधित कार्य हेतु निविदाएं आमंत्रित की जाती हैं। कार्य की अनुमानित लागत टेण्डर के बिना तथा फ्रॉल करने की लक्षित टेण्डर शर्त जॉर्जि समूहों विवरण नगर निगम, जयपुर की वेबसाइट www.jalpnrc.org पर राजस्थान सरकार के पोर्टल <http://eproc.raj.nic.in> तथा <http://ecprocrajasthan.gov.in> पर देखी व डाउनलोड की जा सकती है। स्टेट पब्लिक प्रोचोरमेंट पोर्टल का Unique Bid Number JMC1819WSOB00789 पर JMC1819WSOB00785 है।
अधिकारी अधिकारता (साधारणतः कोन)

**BHARATIYA RESERVE BANK
NOTE MUDRAN (P) LIMITED**
(WHOLLY OWNED SUBSIDIARY OF RESERVE BANK OF INDIA)
NOTE MUDRAN NAGAR, MYSURU-570003

National Competitive Bid (Open Tender)

1. PROVIDING WELD MESH FENCING FROM CENTRAL CIRCLE TO ENTRANCE OF BNPMPPL AT NOTE MUDRAN NAGAR, MYSURU - Tender No. 046/MYS/CIVIL/2018-19 - Estimated value: ₹ 29.00 Lakh.
2. AMC FOR PEST CONTROL TREATMENT AT BRBNMPL, MYSURU - Tender No. 055/MYS/CIVIL/2018-19 - Estimated value: ₹ 11.50 Lakh.
3. SUPPLY, TESTING AND HANDING OVER OF TRUCK MOUNTED ROAD SWEEPING MACHINE AT BRBNMPL, MYSURU UNDER CSR SCHEME - Tender No. 059/MYS/MMO/2018-19 - Estimated value: ₹ 60.00 Lakh.
4. SUPPLY OF READYMADE UNIFORM FOR EMPLOYEES (MALE AND FEMALE) AT BRBNMPL, MYSURU - Tender No. 060/MYS/MMO/2018-19 - Estimated value: ₹ 26.12 Lakh.

Last date of submission of all the above tenders is 26.09.2018 by 1430 hrs. For downloading tender documents and other details, kindly visit our website www.brbnmpl.co.in. Further extension or amendments, if any will be uploaded on our website only.

General Manager

**RIICO
RAJASTHAN STATE INDUSTRIAL DEVELOPMENT & INVESTMENT CORPORATION LTD.**
(A Rajasthan Government Undertaking)

Udyog Bhawan, Tilak Marg, Jaipur- 302 005, Phone : 0141-2227751, 4593201
Fax : 0141-4593210 E - Mail : riico@riico.co.in Website : www.riico.co.in

E-TENDER NOTICE

RIICO invites tenders/bids costing more than Rs. 100 lacs through eproc.rajjasthan.gov.in from registered, reputed and experienced contractors for under mentioned works. As such, this is to inform all the prospective bidders/contractors registered in appropriate class in any department or public undertaking of any state in India/GOI, that they may download & submit online tenders/bids for following works:

Sr. No.	Name of Work	Estimated Cost (Rs. in Lacs)
1	Sr. Regional Manager, Nimrana	
1.1	Construction of boundary wall, cement concrete road, drains and cleaning of malba under Up-Gradation of Infrastructure facilities at industrial area behror.	267.23
2	Sr. Regional Manager, Kota	
2.1	Development of Water supply scheme at o'industrial area kuber Extension UBN-RDC1819WSOB00617	293.43
3	Sr. Regional Manager, Ajmer	
3.1	Construction of Road, CD works and demarcation boundary Pillars at I/A Sathana, Blijaynagar UBN-RDC1819WSOB00574	254.25
4	Sr. Regional Manager, Kota	
4.1	Construction of Cement concrete approach Road (Sundlak Road) and Internal Roads at I/A IID Centre: Baran. UBN-RDC1819WSOB	244.55
5	Sr. Regional Manager, North, Jaipur	
5.1	Supply, installation, Testing and commissioning of LED lights in place of conventional Lights at Industrial Area Jhotwara (T.A.), Jaipur UBN-RDC1819WSOB00603	95.69

For details information and instruction for online submission of tender/bid, please log on www.riico.co.in and www.eproc.rajjasthan.gov.in. For queries please contact. Additional GM Ph: 0141-4593233
@Samwad/18/2296

Times of India (Chhubangswar) 23-08-2018 P-9

