

MoEF Compliance Report (Period: April '14 - September'14)

Ministries Clearance Letter No.: J-13012/122/2008-IA.II(T) dated 07-04-2011

SPECIFIC CONDITIONS

As per conditions mentioned in letter from MOEF dt 12.04.2011			
A.	Specific Conditions:	Remarks	Status
(i)	Road transportation of coal shall be permitted for a limited period of 36 months only. The project proponent shall shift to railway transportation thereafter. The project proponent shall be vicariously responsible for liabilities incurred for road transportation such as accidental damages to public, coal fines emission from transporting trucks etc. The project proponent shall immediately start its action plan for rail transportation with consultation with the Railways and shall submit half yearly action taken report to the Ministry on the matter.	The following actions undertaken:	
		1) The coal is being transported under total tarpaulin cover to arrest coal fines emission.	The trucks coming to the plant are well covered with tarpaulins.
		2) A letter has been written to Railway authority regarding their action plan for up gradation of Tatisilwai Railway Station for unloading of coal etc.	We have submitted another letter to the Railway Authority, Hatia (Ref Letter No : UML/ CPP/Coal rail/14/01) requesting for the permission for coal siding at Tatisilwai Station. Awaiting reply from Railway Authority (Annex-1)
		3) Safety/Environment Wing has taken initiative to interact with transport drivers for road safety to avoid accident etc.	A few bumpers have been fixed at some critical points of the road adjacent to the plant & continuous counseling going on.

(ii)	<p>High Efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm³</p> <p>Adequate dust extraction system such as cyclones/ bag filters and water spray system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided.</p>	<p>High efficiency ESPs consisting of 4 fields are being installed to cater the SPM emission below 50mg/Nm³.Dust will be collected through Pneumatic Dense Phase System via conveying pipeline in Bed& Fly ash silos, which is having bag filters, water spray system & ash conditioner. Adequate Dust extraction system and Dust suppression system with water sprays in dusty areas is being installed especially in CHP area.</p>	<p>All necessary devices as mentioned have been commissioned & now all are in operation. Real time monitoring system also installed & connected to JSPCB</p>
(iii)	<p>Sulfur and ash contents in the coal to be used in the project shall not exceed 0.5 % and 34 % respectively at any given time. In case of variation of coal quality at any point of time fresh reference shall be made of MoEF for suitable amendments to environmental clearance condition wherever necessary.</p>	<p>We will be using Indian coal available in & around Jharkhand, wherein Sulphur and Ash Contents will be less than 0.5% & 34% respectively. In case of non availability of specified coal as suggested, we will inform MOEF accordingly.</p>	<p>Coal parameters are within limit. Detail reports are attached (Annex-2)</p>
(iv)	<p>Stack of 70 m height shall be installed and provided with continuous online monitoring equipments for Sox, Nox and PM_{2.5} and PM₁₀. Exit velocity of flue gases shall not be less than 22 m/sec. Mercury emissions from stack may also monitored on periodic basis.</p>	<p>As advised, we are installing chimney of 70 m height. Online monitoring equipments for Sox , Nox analyzer of ABB make are being installed at Chimney. The procurement of PM_{2.5} & PM₁₀ is under process. We are searching for the accredited agency in Ranchi who can monitor Hg emission from Stack on periodic basis.</p>	<p>Real time monitoring system is installed & connected to JSPCB (Annex-12). Through In-house Laboratory all the parameters are tested on Dailey basis. Also M/S MECON has tested the parameters in regular interval. Report Attached (Annex-3 & 11.c)</p>

(v)	Existing de-generated water bodies (if any) in the study area shall be regenerated at the project proponent's expenses in consultation with the state Govt.	As there are no degenerated water bodies available at CPP site, the question of regeneration does not arise.	-
(vi)	Water requirement for running the plant shall be met from harvested rainwater and no ground water shall be extracted for the purpose.	We are actively considering your suggestion. We have already deployed a renowned consultant of Rainwater Harvesting system from Chennai to implement the scheme, so that the requirement of water can be met from Rainwater to a large extent.	Rainwater harvesting system has already installed & report submitted. (Annex-13)
(vii)	Hydro-geological status (quality and quantity) of ground water shall be reviewed annually from an institute/ organization of repute to assess impact of surface water and ground regime (especially around ash dyke). In case and deterioration is observed specific mitigation measures shall be undertaken and reports/ date of water quality monitored regularly and maintained shall be submitted to the Regional Office of the Ministry.	We are consulting with M/s. MECON, Ranchi for implementation of your suggestion.	Samples have been checked by M/s Mecon. Report is attached (Annex-4 & 11.e)

(viii)	Source of water for meeting the requirement during lean season shall be specified and submitted to the Regional Office of the Ministry within three months.	Large reservoirs (2 x 10000 KL) have been made for collection of harvested rainwater which will cater the demand of water during lean season. Kindly go through our reply also against your Specific Condition No. (XI).	Please see S.No. (vi)
(ix)	No water bodies (including natural drainage system) in the area shall be disturbed due to activities associated with the setting up / operation of the power plant.	We will adhere your suggestion, while operating the plant.	-
(x)	COC of 5.0 (as may be applicable) shall be adopted.	As our power plant is supported by Air cooled condenser, the water requirement will be very less. For cooling of drives & lubrication system, an auxiliary cooling tower is envisaged, where COC of 5.0. will be adopted.	Our COC is less than 3.5 at present.
(xii)	The treated effluents conforming to the prescribed standards only shall be re-circulated and reused within the plant. Arrangements shall be made that effluents and storm water do not get mixed. A sewage treatment plant shall be provided (as applicable) and the treated sewage shall be used for raising greenbelt/plantation.	ETP of latest technology consists of neutralizing pit, guard pond,clarifier, filter press,sludge treatment plant and storage tank etc. are being installed to take care of the waste of Power plant. We are also installing Sewage Treatment system(STP). All the function of ETP and STP are in closed loop, as such there will be no chance of getting mixed with storm water. We have already planned for utilizing treated water for plantation.	Water Treatment Plant, Effluent Treatment Plant & Sewage Treatment Plants have been commissioned and we are following your directions in all respect. Report of Effluent is attached (Annex-5 & 11.a,11.b,11.d)

(xiii)	Additional soil for leveling of the proposed site shall be generated within the sites (to the extent possible) so that natural drainage system of the area is protected and improved.	We are taking care of your suggestion.	
(xiv)	Utilization of 100% Fly Ash generated shall be made from 4th year of operation. Status of implementation shall be reported to the Regional Office of the Ministry from time to time.	<p>a) Company has planned to establish Fly Ash Brick making plant which will consume some portion of our generated fly ash.</p> <p>Action Taken: Brick plant machinery has been ordered to M/s Neptune Industries, Gujarat.</p> <p>b) The company is studying feasibility of establishing a 1.0 MTPA capacity Cement Grinding & Blending Plant for which M/s Holtec, Gurgaon, the cement consultant has been engaged.</p> <p>c) Parallel for the utilization of fly ash, the company has explored the possibility of supplying Fly Ash to nearby Cement, Fly ash Brick manufacturing plants and batching plant (pre-mixing). MoUs have been signed with the following manufacturers,</p> <p>1. M/s Lafarge (for batching plant)</p>	(a) There are 03 nos of fly ash brick production units which have been installed & in operation. (b) Cement & outside brick manufacturers are also taking our fly ash on regular basis (Annex-6, 2 pages)

		2. M/s Khalari Cement Co. Ltd.	
		3. M/s Sri Rungta Cement.	
		4. M/s Jharkhand bricks	
(xv)	<p>Fly ash shall be collected in dry form and storage facility (silos) shall be provided. Unutilized fly ash shall be disposed off in the ash pond in the form of slurry form. <u>Mercury and other heavy metals (As, Hg, Cr, Pb etc.)</u> will be monitored in the bottom ash as also in the effluents emanating from the existing ash pond. No ash shall be disposed off in low</p>	To be complied.	2 nd Ash disposal area with 150 micron thick polyethylene (HDP) sheet to ensure impermeability has been constructed recently as per TOR Point 22 of MOEF Presentation.
(xvi)	<p>Ash pond (if any) shall be lined with HDP/LDPE lining or any other suitable impermeable media such that no leachate takes place at any point of time. Adequate safety measures shall also be implemented to protect the ash dyke from getting breached.</p>		
(xvii)	<p>Green Belt consisting of 3 tiers of plantations of native species around plant and covering 33% of area shall be raised. Tree density shall not less than 2500 per ha with survival rate not less than 80%.</p>	<p>GREEN BELT DEVELOPMENT PLAN:</p> <p>Action has already been initiated. During first rainy season, we have already planted various trees. Further action will be taken to plant below mentioned trees gradually:</p>	Following plantation done at CPP site :

		<p>Planted species include the following: Fruit Bearing : 1) Mango, 2) Tamarind, 3)Jamun, 4) Ber, 5) Guava, 6) Karaunda, 7) Shahtut, 8) Lemon, 9) Bel</p>	
		<p>Herbal : 1) Arjun, 2) Amaltas, 3), Harsingar, 4) Bahera, 5) Awala, 6) Maulshree, 7) Shyama Tulsi, 8) Kachanar, 9) Karanjee, 10) Neem, 11) Kattha, 12) Red Kesar</p>	
		<p>Flowering Shrubs/trees : 1) Bellow Kaner, 2) Chandani, 3) Gurahal, 4) Sawami, 5) Gulmohar, 6) Gandharaj, 7) Kamini, 8) Mayur Thuja, 9) Junipras</p>	<p>Mango - 69, Lichi-35, Guava - 36, Arlia - 14, Dipin Bichiyan- 17, Arica pamp - 32, Derisina - 26, Golden Hedge - 21 rows, Bogenvilia - 1 , Bebal Hedge - 1 row, Coliasa Plund -52, Korton - 50, Rose - 86, Chinese Genda - 9, Calendula - 2 rows, Folox - 9, Pathal Chatta - 6, Dehelia - 4, Berbena - 1 rows, Pitunia - 20, Inka Genda - 9, CAndi Top - 2, SALvia - 18, Popi - 1 row, Bigenia - 10, Colias - 200, Tulsi - 56, Derisina - 18, Bandluci-33 , Lala Hedge - 10 rows, Grass (Dub)- 2 Location, Gurala - 30, Motia flower - 78, Rangan - 18, Cochian - 14 , Chinese Flower- 10 , Band Gobhi Flower-24</p>
		<p>-</p>	
		<p>Forest Species : 1) Bamboo, 2) Sisoo, 3) White Siras, 4) Black Siras, 5) Eucalyptus sp, 6) Teak, 7) Kesia Samia, 8) Akesia, 9) Kesia Biflora, 10) Jungle Jalebi, 11) Arelia, 12) Gravelia, 13) Bamboo, 14) Subabool, 15) Kadamba, 16) Khamber, 17) Palm, 18) Peepal, 19) Banyan, 20) Devil's Tree</p>	

(xviii)	<p>The project proponent shall also adequately contribute in the development of the neighboring villages. Special package with implementation schedule for providing fluoride free potable drinking water supply in the nearby villages and schools shall be undertaken in a time bound manner.</p>	<p>A NGO under Usha Martin is engaged in its unwavering commitment to social responsibility. For over three decades, the company has invested ample man-hours and capital on community development projects for integrated prosperity in rural Jharkhand, through a CSR arm, Krishi Gram Vikas Kendra (KGVK). This NGO undertakes various development initiatives, following a model of Total Village Management (TVM). Focusing on key areas like Watershed development, agricultural productivity, better health practices, education, empowering women and encouraging micro enterprise. We have already indicated the scheme in our EIA & EMP submitted to your office.</p>	Compliance done as per requirement.
(xix)	<p>An amount of Rs. 0.50 Crores shall be earmarked as one time capital cost for CSR programmed. Subsequently a recurring expenditure of Rs. 0.10 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.</p>	<p>It is already allocated. The details are available in the attached (Annexure-7.)</p>	Compliance done as per requirement.

(xx)	<p>While identifying CSR activities it shall be ensured that need based assessment for the nearby villages within study area shall be conducted to study economic measures with action plan which can help in upliftment of poor section of society. Income generating projects consistent with the traditional skills of the people shall be undertaken.</p> <p>Development of fodder farm, fruit bearing orchards, vocational training etc. can form a part of such programme. Company shall provide separate budget for community development activities and income generating programmes.</p> <p>Vocational training programme for possible self employment and jobs shall be imparted to identified villagers free of cost.</p>	<p>A NGO under Usha Martin is engaged in its unwavering commitment to social responsibility. For over three decades, the company has invested ample man-hours and capital on community development projects for integrated prosperity in rural Jharkhand, through a CSR arm, Krishi Gram Vikas Kendra (KGVK). This NGO undertakes various development initiatives, following a model of Total Village Management (TVM). Focusing on key areas like Watershed development, agricultural productivity, better health practices, education, empowering women and encouraging micro enterprise. We have already indicated the scheme in our EIA & EMP submitted to your office.</p>	Compliance done as per requirement.
(xxi)	<p>It shall be ensured that in-built monitoring mechanism for the schemes identified is 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.</p>	<p>We will submit you the report from time to time to appraise the activities carried out at Power Plant, Ranchi.</p>	Compliance done as per requirement.

GENERAL CONDITIONS

As per conditions mentioned in letter from MoEF dt 12.04.2011			
B.	General Conditions:	Remarks	Status
(i)	Adequate safety measures shall be provided in the plant area to check/ minimize spontaneous fires in coal yard, especially during summer season. Copy of these measures with full details along with location plant layout shall be submitted to the Ministry as well as to the Regional Office of the Ministry.	Our captive power plant is fully protected from Fire Hazards as sufficient qty. of fire hydrants are being installed around coal yard. Water spaying system are also provided to neutralize the dust particles which also can be used during fire, if any.	Fire protection/detection system has been installed at our project site as per Survey Report On Fire Protection System by Fire Net (India) Services , New Delhi. Detail report already submitted in our previous Half yearly reports on dated 3 rd March,2012,(Ref. Annexure no-4a,4 b &5)
(ii)	Storage facilities for auxiliary liquid fuel such as LDO and/ HFO/LSHS shall be made in the plant area in consultation with Department of Explosives, Nagpur. Sulphur content in the liquid fuel will not exceed 0.5%. Disaster Management Plan shall be prepared to meet any eventuality in case of an accident taking place due to	We are installing the same under guidelines of Explosives deptt. All the statutory obligation are also being fulfilled. We always give top priority to the safety aspect, so that there is zero accident. For storing of Oil, we will follow the guideline given by the local authority for safety purpose. Elaborate Disaster Management plan are outlaid in our EIA & EMP, and we will follow the same for any eventuality.	Necessary clearance from explosives department for LDO Storage at CPP has been taken . We shall follow disaster management plan as mentioned in Chapter 6 of Rapid Environment Impact Assessment report.

storage of oil.

(iii)	<p>Regular monitoring of ground water level shall be carried out by establishing a network of existing wells and constructing new piezometers.</p> <p>Monitoring around the ash pond area shall be carried out particularly for <u>heavy metals (Hg, Cr, As, Pb)</u> and records maintained and submitted to the Regional Office of this Ministry.</p> <p>The data so obtained should be compared with the baseline data so as to ensure that the ground water quality is not adversely affected due to the project.</p>	<p>Since in our project, we have envisaged dry collection of Ash and disposal of the same by dry method for various uses like ash brick manufacturing and supply to cement industries. However , to store excess ash we will make one ash disposal area as mentioned in TOR Point 22 of MOEF Presentation.</p>	<p>Accordingly we have made the same with necessary precautions.</p>
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(iv)	<p>Monitoring surface water quantity and quality shall also be regularly conducted and records maintained. The monitored data shall be submitted to the Ministry regularly. Further, monitoring points shall be located between the plant and drainage in the direction of flow of ground water and records maintained. Monitoring for heavy metals in ground water shall be undertaken.</p>	<p>We have initiated consultation with the environment consultant to deploy them for regular monitoring as indicated.</p>	<p>Samples checked on regular basis. Report is attached (Annex-4 & 11.e)</p>
(v)	<p>First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.</p>	<p>It is being complied.</p>	<p>Already in place.</p>

(vi)	<p>Noise levels emanating from turbines shall be so controlled such that the noise in the work zone shall be limited to 75 dBA. For people working in the high noise area, requisite personal protective equipment like earplugs/ ear muffs etc. shall be provided. Workers engaged in noisy areas such as turbine area, air compressors etc. shall be periodically examined to maintain audiometric record and for treatment for any hearing loss including shifting to non noisy/ less noisy areas.</p>	<p>This aspect is already been taken care off by our equipment suppliers and the noise level will be maintained within permissible limit and other arrangement as indicated . will be followed during operation of the plant</p>	<p>Being monitored regularly. Report is attached (Annex-8 & 11.c).</p>
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(vii)	<p>Regular monitoring of ambient air ground level concentration of SO₂ Nox, PM_{2.5} & PM₁₀ and Hg shall be carried out in the impact zone and records maintained. If at any stage these levels are found to exceed the prescribed limits, necessary control measures shall be provided immediately. The location of the monitoring stations and frequency of monitoring shall be decided in consultation with SPCB. Periodic reports shall be submitted to the Regional Office of this Ministry. The data shall also be put on the website of the company.</p>	<p>It will be complied at the time of plant operation.</p>	<p>Being monitored regularly at our own laboratory. Periodically Samples have also been given to M/s Mecon for interim analysis. (Laboratory facility at CPP (Annex-9 & 11.c)).</p>
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(viii)	<p>Provision shall be made for the housing of construction labour (as applicable) within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.</p>	<p>The project is being constructed within the boundary of existing plant. And in the existing plant, adequate facility is available for accommodating construction workers. Accordingly, all these facilities are available.</p>	<p>It is being complied.</p>
(ix)	<p>The project proponent shall advertise in at least two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned within seven days from the date of this clearance letter, 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</p>	<p>It has already been complied.</p>	<p>-</p>

	<p>be seen at Website of the Ministry of Environment and Forest at http://envfor.nic.in.</p>		
(x)	<p>A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parisad / Municipal Corporation, urban local Body and the Local NGO, if any from whom suggestions / representations, if any, received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.</p>	<p>It has already been complied.</p>	
(xi)	<p>An Environmental Cell shall be created at the project site itself and shall be headed by an officer of appropriate seniority and qualification. It shall be ensured that the head of the Cell shall directly report</p>	<p>It already exists.</p>	

	to the Head of the Organization.		
(xii)	<p>The proponent shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB.</p> <p>The criteria pollutant levels namely; SPM, RSPM (PM2.5 & PM10), SO2, NOx (ambient levels as well as stack emissions) shall be displayed at a convenient location near the main gate of the company in the public domain.</p>	<p>It will be complied. We are following the system in our existing plant for displaying the pollutants level at main gate.</p>	<p>On line monitoring system is also commissioned & connected to JSPCB. (Annex-12)</p>

(xiii)	<p>The environment statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the 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 the Ministry be e-mail.</p>	<p>Shall be complied.</p>	<p>-</p>
(xiv)	<p>The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment and Forests, its Regional Office, Central Pollution Control Board and State Pollution Control Board. The project proponent shall upload the status of</p>	<p>Shall be complied.</p>	<p>Reports are being sent regularly before June and December every year.</p>

	<p>compliance of the environment of the environmental clearance conditions on their website and update the same periodically and simultaneously send the same by e-mail to the Regional Office, Ministry of Environment and Forests.</p>		
(xv)	<p>Regional Office of the Ministry of Environment & Forests will monitor the implementation of the stipulated conditions. A complete set of documents including Environmental Impact Assessment Report and Environment Management Plan along with the additional information submitted from time to time shall be forwarded to the Regional Office for their use during monitoring. Project proponent will up-load the compliance status in their website and update the same from time to time at least six monthly basis.</p>	To be complied	On line monitoring system is also commissioned. Test certificate attached (Annex-12)

	Criteria pollutants levels including Nox (from stack & ambient air) shall be displayed at the main gate of the power plant.		
(xvi)	Separate funds shall be allocated for implementation of environmental protection measures along with item-wise break-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should be reported to the Ministry.	A separate fund is already allocated. The equipments have started arriving at the site as per following break up:	
		A) FOR AIR POLLUTION CONTROL SYSTEM (ESP, DES & DSS): RS.350 LACS	ESP,DES & DSS systems have been commissioned.
		B) FOR WATER CONSERVATION & POLLUTION CONTROL (ACC & ETP): RS. 150 LACS	ACC & ETP systems have been commissioned.
		C) FOR SOLID WASTE MANAGEMENT SYSTEM (FLY ASH BRICK PLANT & PPC CEMENT PLANT): RS.180 LACS	Fly ash brick plant has been commissioned.
		D) GREEN BELT DEVELOPMENT:RS.50 LACS	-
		E) ENVIRONMENTAL MONITORING & LABORATORY DEVELOPMENT: RS.100 LACS	For Laboratory development Rs. 7.04 Lacs already spent. Laboratory facility at CPP: (Annex-10)
		F) RECURRING COST/ANNUM FOR ENVIRONMENTAL POLLUTION CONTROL MEASURES: RS. 17.23 LACS	-
		G) OTHERS: 31.5 LACS	

		TOTAL: RS.878.73 LACS	
(xvii)	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 the dates of start of land development work and commissioning of plant.	The fund for this small project of Rs.100 cr. is already provided from the existing integrated fund for various projects' expansion.	Both units are commissioned.
(xviii)	Full cooperation shall be extended to the Scientists/ Officers from the Ministry / Regional Office of the Ministry at Bangalore / CPCB/ SPCB who would be monitoring the compliance of environmental status.	Will be extended.	-
5.	The Ministry of Environment and Forests reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the Ministry. The Ministry may also impose additional environmental conditions or modify the	OK	-

	existing ones, if necessary.		
6.	The environmental clearance accorded shall be valid for a period of 5 years to start operations by the power plant.	OK	-
7.	Concealing factual data or submission of false/ fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.	OK	-
8.	In case of any deviation or alteration in the project proposed including coal transportation system from those submitted to this Ministry for clearance, a fresh reference should be made to the Ministry to assess the adequacy of the condition(s) imposed and to add additional environmental protection	To be complied	-

	measures required, if any.		
9.	<p>The above stipulations would be enforced among others under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and rules there under, Hazardous Wastes (Management and Handling) Rules, 1989 and its amendments, the Public Liability Insurance Act, 1991 and its amendments.</p>	To be complied	-