MAHARASHTRA POLLUTION CONTROL BOARD

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Kalpataru Point, 2nd - 4th Floor Opp. Cine Planet Cinema, Near Sion Circle, Sion (E) Mumbai-400 022.

Date: 24/02/2012

Infrastructure Project:Red /LSI

Consent No. MPCB/RO(HQ)/EIC-PN-5751-10/E/cc- 227

Consent to Establish under Section 25 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorization / Renewal of Authorization under Rule 5 of the Hazardous Wastes (Management, Handling & Transboundry Movement) Rules 2008.

[To be referred as Water Act, Air Act and HW (M, H &T) Rules respectively]

CONSENT is hereby granted to,

M/s. Indian Institute of Science Education and Research S.No.574,575,578(Part),Baner Road, Pune-411008.

Located in the area declared under the provisions of the Water Act, Air act and Authorization under the provisions of HW(M,H& T) Rules and amendments thereto subject to the provisions of the Act and the Rules and the Orders that may be made further and subject to the following terms and conditions:

- 1. The Consent to Establish is granted for a period up to commissioning of the Project or 5 years whichever is earlier.
- 2. The Consent is valid for the construction of For development of land / plot as new construction activities for Education and Research Activity at S.No.574,575,578(Part),Baner Road,Pune-411008 on total plot area of 3,96,592 sq.mtr., Permissible BUA(as per FSI) of 2,60,308 sq. mtr., including utilities of the commercial project as per construction commencement certificate issued by local body.
- 3. CONDITIONS UNDER WATER ACT:
- (i) The daily quantity of trade effluent from the factory shall be NIL.
- (ii) The daily quantity of sewage effluent from the factory shall not exceed **610.00M³**.
- (iii) Sewage Effluent Treatment: The Applicant shall provide a comprehensive sewage Treatment plant and treatment as is warranted with reference to influent quality and Corresponding mode of disposal and operate and maintain the same continuously so as to achieve the quality of treated effluent to the following standards:

ve u	ie quality of treated emur	ent to the following stan:	dards:
١.	рн	Not to exceed	6.5 to 9.0
2.	Suspended Solids	Not to exceed	100 mg/l.
3.	BOD 3 days 27 °C.	Not to exceed	20 mg/l.
4.	Fecal Coli form	Not to exceed	500/100/lml
5.	Residual Chlorine	Not to exceed	01 mg/l.
6.	Detergent	Not to exceed	01 mg/i.
7.	Floating matters	Not to exceed	10 mg/i
8.	COD	Not to exceed	50 mg/l
			oo mga

(iv) Sewage Effluent Disposal:

a. Applicant shall provide Full-fledged STP for treatment of domestic effluent generated from the project, which shall be 80% recycled & reused for flushing, fire fighting, cooling of air Conditioners and reaming shall be used on own land for Gardening /Municipal sewer.

(v) Non-Hazardous Solid Wastes:

Sr. Nc Type Of Waste		Quant UOM y		Treatment	Disposal	
1. Biodegradable Waste		1016.0	Kg/Day	Organic waste converter		
2.	Non Biodegradable Waste	e Waste 806.0 Kg/Day Disposal on Authorized Secure landfill of local body		norized Secure landfill site		

Adequate measures shall be taken for segregation, handling, storage, treatment, transport and disposal of Municipal Solid Waste.

3. Other Conditions (During construction phase):-

1. All activities shall be in resonance with the provisions of Indian Forest Act, 1927 (16 of 1927), Forest (Conservation) Act, 1980 (69 of 1980) and Wildlife (Protection) Act, 1972 (53 of 1972), and special notification published for area wherever applicable and all the Environmental Statutes and Instruments.

2. This Consent to Establish is issued only for New Construction/Developing Construction

Project purposes.

- 3. No quarrying activities shall be commenced in the area unless appropriate permissions are obtained for a limited quarrying material required for construction of local residential housing and traditional road maintenance work, provided that such quarrying is not done on Forest Lands and the material is not exported to the outside area.
- 4. There shall be no felling of trees whether on Forest, Government, Revenue or Private lands except as per prevailing Rules.
- 5. Extraction of Groundwater for the project shall require prior permission of the State Ground Water Authority or other relevant authorities, as applicable;
- 6. Near the activities that are related to water (like activity of water parks, water sports) and/or in the vicinity of lake, Dissolved Oxygen shall not be less than 5 mg/liter.
- 7. In order to ensure that the water from this project do not enter into outside environment, the nallas crossing the township/complex premises, shall be lined, covered and made water tight by the applicant within the premises with intermittent inspection of chambers following good engineering practices as per the regulations of local body.
- 8. The Applicant shall prepare management plan for water harvesting, roof-water reclamation, water/storm water conservation and implement the same before handling over of complex for occupation.
- Applicant shall provide fixtures for showers, toilet, flushing and drinking should be of low flow either by use of aerators or pressure reducing devices or sensor based control.
- 10. The Applicant shall draw plans for the segregation of solid wastes into biodegradable and non-biodegradable components. The biodegradable material shall be recycled through scientific in-house composting (i.e vermi-composting facility within premises) with the approval of local body. The proper demarked area shall be identified for collection & storage of MSW properly which, shall be finally disposed off at approved Municipal Solid Waste landfill site of local body environmentally acceptable location and method. It is clarified that the term solid waste includes domestic, commercial, and garden wastes, but does not include hazardous and bio-medical wastes. The activities of bio-composting and engineered landfill shall be as per the Municipal Solid Waste (M&H) Rules, 2000.

- of bio-composting and engineered landfill shall be as per the Municipal Solid Waste (M&H) Rules, 2000.
- 11. Applicant shall be responsible to take adequate precautionary measures as detailed in this consent.
- 12. The applicant/generator shall be responsible for safe and scientific collection, transportation, treatment and disposal of Bio-Medical Waste as per the provisions made under the Bio-Medical Waste (Management & Handling) Rules, 1998. Any activity as defined under BMW (M&H) Rules has to obtain a separate Authorization from Maharashtra Pollution Control Board.
- 13. For disinfections of waste water ultra violet radiation shall be used in place of chlorination
- 14. Vehicles hired for construction activities should be operated only during non peak hours.
- 15. Ready mixed concrete used in building construction should apply separately for consent from the Board.
- 16. The applicant, during the construction stage shall provide:
- a) Septic tank and soak pit of adequate capacity for the domestic effluent generated due to workers residing at site.
- b) Proper loading and unloading of construction material, excavated material and its proper disposal as per MSW (M&H) Rules 2000.
- c) Cutting of trees is not permitted, however in unavoidable conditions necessary permission from the local body shall be obtained.
- d) Green belt of 33% of the open space shall be developed.
- 4. The Applicant shall comply with all the provisions of, the Water (Prevention and Control of Pollution) Cess Act, 1977 (to be referred as Cess Act) and Rules as Amended, 2003 and Rules there under: -

The daily water consumption for the following categories is as under:

(i)	Domestic	From ULB	From other source
		(In CMD)	(In CMD)
a)	Domestic	651	NA
b)	Make up water for	NA	NA
	Swimming pool		
c)	Make up for firefighting) NA	NA
d)	Agriculture/Gardening	 '''	NA
(ii)	Industrial cooling	1755	NA

The applicant shall regularly submit to the Board the returns of water consumption in the prescribed form and pay the Cess as specified under Section 3 of the said Act.

(5) CONDITIONS UNDER AIR ACT:

(I) The Applicant may install 7 nos. of diesel generating sets (DG Set) of capacity 1500 KVA (4 No.), 750 KVA (3 Nos) and shall be equipped with comprehensive control system as is warranted with reference to generations of emissions and operate and maintain the same continuously so as to achieve the level of pollutants to the following standards: -

i)	SPM/TPM	Not to Exceed	150	mg/Nm³
ii)	SO ₂ (DG set)	Not to Exceed		Kg/day

- a) Adequate mitigation measures shall be taken to control emissions of SO₂, NOx, SPM, RSPM.
- b) Applicant shall achieve following Ambient Air Quality standards.

1 SO ₂		Not to Exceed (Annual Average)	50	µg/ m³
		Not to Exceed (24 hours)	80	μg/ m³
2	NO _x	Not to Exceed (Annual Average)	, 40	μg/ m³
		Not to Exceed (24 hours)	80	μg/ m³
3	PM ₁₀	Not to Exceed (Annual Average)	60	μg/ m³
		Not to Exceed (24 hours)	100	μg/ m³
4	PM _{2.5}	Not to Exceed (Annual Average	40	μg/ m³
		Not to Exceed (24 hours)	60	μg/ m³

(II) The Applicant shall observe the following fuel patterns

No.	Type of Fuel	Quantity
1	LSHS	

(III) The Applicant shall erect the Chimney (s) of the following specifications

No.	Chimney attached to DG	Height above roof top of the building in which it is installed.		
1	DG set 1500 KVA (1 Nos.)	7.7 mtrs each		
2	DG set 750 KVA (3 Nos.)	5.4 mtrs each		

(iv)Conditions for D.G. Set

- 1. Noise from DG Sets shall be controlled by providing acoustic enclosure or by treating the room acoustically.
- 2. Applicant should provide acoustic enclosure for control of noise. The acoustic enclosure/ acoustic treatment of the room shall be designed for minimum 25 dB(A) insertion loss or for meeting the ambient noise standards, whichever is on higher side. A suitable exhaust muffler with insertion loss of 25 dB(A) shall also be provided. The measurement of insertion loss shall be done at different points at 0.5 meters from acoustic enclosure/ room and then average.
- 3. The Applicant should make efforts to bring down noise level due to DG Set, outside the premises, with ambient noise level requirements by proper setting and control measures.
- 4. Installation of DG Set must be strictly in compliance with recommendations of DG set manufacturer;
- 5. A proper routine and preventive maintenance procedure for DG Set shall be set and followed in consultation with the DG manufacturers, which would help to prevent noise levels of DG Sets from deteriorating with use.
- 6. The DG set shall be operated only in case of power failure. The applicant shall make arrangement for regular electrical power.
- 7. The Applicant shall not cause any nuisance in the surrounding area due to operation of DG sets.
- 8. In case of problems, the D.G. set shall not be operated until it is set back to satisfactory position.

(v) Other Conditions:

- a) The Applicant shall provide ports in the chimney and facilities such as ladder, platform etc for monitoring the air emissions and the same shall be open for inspection to/and for use of the Board's staff. The chimneys shall be numbered, as S-1, S-2 etc and these shall be painted/ displayed to facilitate identification.
- b) Water spraying shall be done on ground to avoid fugitive emissions.
- c) Construction material shall be carried in enclosed vehicles during construction activities.
- d) Applicant shall provide Environmental Friendly road transportation by adopting Mechanical type closed truck for transportation of debris during construction phase.

(vi) Conditions for Utilities like Kitchen, Eating Places etc: -

- 1. The kitchen shall be provided with exhaust system chimney with oil catcher connected to chimney through ducting.
- 2. The toilet shall be provided with exhaust system connected to chimney through ducting.
- 3. The air conditioner shall be vibration proof and the noise shall not exceed 68 dB (A).
- 4. The exhaust hot air from A.C. shall be attached to Chimney at least 5 mtrs. higher than the nearest tallest building through ducting and shall discharge into open air in such way that no nuisance is caused to neighbors.
- (vii) The Applicant shall take adequate measures for control of noise levels from its own sources within the complex (residential cum Commercial) in respect of noise to less than 55 dB(A) during day time and 45 dB(A) during the night time. Daytime is reckoned as between 6 a.m. to 10 p.m. and Nighttime is reckoned between 10 p.m. to 6 a.m.
- (viii) Construction equipments generating noise of less than 65/90 db(A) are permitted.
- (ix) No construction work is permitted during nighttime.

6. CONDITIONS UNDER HW (M,H&TM) RULES, 2008

(i) The Applicant shall handle hazardous wastes as specified below.

Sr. No	Type Of Waste	Qua UOM ity	Disposal
1	34.3 Chemical sludge from waste w	vater treatment 450.00 MT	CHWTSDF

7. The applicant shall certify that the bricks used in construction are manufactured using the ash from Thermal Power stations if it is within a radius of 100 km. from Thermal Power Plant and submit the names of bricks manufacturer.

8. Applicant shall comply with following general conditions:

- The applicant shall maintain good housekeeping and take adequate measures for control of pollution from all sources so as not to cause nuisance to surrounding area / inhabitants.
- ii. The applicant shall bring minimum 33% of the available open land under green coverage/ tree plantation.
- iii. Solid waste The non hazardous solid waste arising in the factory premises, sweepings, etc., be disposed of scientifically so as not to cause any nuisance / pollution. The applicant shall take necessary permissions from civic authorities for disposal to dumping ground.
- iv. The applicant shall provide for an alternate electric power source sufficient to operate all pollution control facilities installed by he applicant to maintain compliance with the terms and conditions of the consent. In the absence, the applicant shall stop, reduce or otherwise, control production to abide by terms & conditions of this consent regarding pollution levels.

- v. The applicant shall not change or alter quantity, quality, the rate of discharge, temperature or the mode of the effluent / emissions or hazardous wastes or control equipments provided for without previous written permission of the Board.
- vi. The applicant shall provide facility for collection of environmental samples and samples of trade and sewage effluents, air emissions and hazardous wastes to the Board staff at the terminal or designated points and shall pay to the Board for the services rendered in this behalf.

vii. The applicant shall make an application for renewal of the consent at least 60 days before the date of the expiry of the consent.

- viii. The firm shall submit to this office, the 30th day of September every year, the Environmental Statement Report for the financial year ending 31st March in the prescribed Form-V as pre the provisions of rule 14 of the Environment (Protection) (Second Amendment) Rules, 1992.
- ix. As inspection book shall be opened and made available to the Board's officers during their visit to the applicant.
- x. The applicant shall install a separate electric meter showing the consumption of energy for operation of domestic and industrial effluent treatment plants and air pollution control system. A register showing consumption of chemicals used for treatment shall be maintained.
- xi. Separate drainage system shall be provided for collection of trade and sewage effluents. Terminal manholes shall be provided at the end of collection system with arrangement for measuring the flow. No effluent shall be admitted in the pipes / sewers down- stream of the terminal manholes. No effluent shall find its way other than in designed and provided collection System.
- xii. Neither storm water nor discharge from other premises shall be allowed to mix with the effluents from the factory.
- 9. The applicant shall obtain Consent to Operate from Maharashtra Pollution Control Board before commissioning of the project.
- 10. The applicant shall adopt environment friendly technology in development of the Project.
- 11. The applicant shall take the proper remediation measures to ensure that the ground Water and soil contamination is prevented and follow due diligence at the construction Stage.
- 12. The applicant shall use fly ash based material/products as per the provisions of fly ash Notification of 14.09.1999 and as amended on 27.08.2003.
- 13. Energy conservation measures like installation of solar panels for lighting the area outside the building should be integrated part of the project design.
- 14. This Board reserves the right to amend or add any conditions in this consent and the same shall be binding on the Applicant;
- 15. Applicant shall submit BG of Rs. 10 Lakh (Rs. Ten Lakh) for compliance of the Consent conditions.
- The Applicant shall comply with the conditions stipulated in Environmental Clearance Granted by Government of Maharashtra vide letter No.SEAC-2010/CR.69/TC.2 dated 25th May, 2010.
- 17. The Capital investment of the Project is Rs. 417 Crore.

- 18. This consent is issued pursuant to the decision of Consent Committee of the Board in its Meeting held on 19th January, 2012.
- 19. This is issued with the approval of Hon'ble chairman of the Board.

(Dr. Y. B. Sontakke) Regional Officer (HQ) (I/c. HSM Division)

To, M/s.Indian Institute of Science Education and Reasearch S.No.574,575,578(Part),Baner Road,Pune Pune, Maharastra-411008.

Copy to:

- 1. Regional Officer, MPCB, Pune
- 2. Sub Regional officer, Pune-I,
- 3. Chief Accounts Officer, Mumbai, MPCB,

Received Consent fee of -

Sr. No.	Amount(Rs.)	DD. No.	Date	Drawn On
1	417000/-	000241	16/02/2010	SBI
2	417000/-	968140	30/12/2011	SBI

4. Cess Branch, MPCB, Mumbai. 5. Master file