- (v) The ETP/STP should be shifted towards North-eastern corner where the Club/Gym has bee located presently. The Club/gym may be relocated at any other suitable place. No waste water from the STP/ETP should go into the nallah.
- (vi) Natural slope of the proposed 9 mt. wide green belt should be kept away from the nallah as per the report of the SEAC.
- (vii) Total green area should be more than 33% of the total plot area instead already existing green belt in 7.5 acres of land. Green belt should be developed at an elevated level by raising the ground level by around two feet and sloping away from the nallah.
- (viii) The reserved green area and 9 mt vide green belt along the side of the nallah should be kept as "No Activity Zone". No construction or storage is allowed in this area.
- (ix) Height of the toe-wall should be raised to 8 feet. Project Proponent should strictly ensure that no waste whether solid or liquid is put/thrown into the nallah.
- (x) A First Aid Room will be provided in the project both during construction and operation of the project.
- (xi) All the topsoil excavated during construction activities should be stored for use in horticulture/landscape development within the project site.
- (xii) Disposal of muck during construction phase should not create any adverse effect on the neighbouring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xiii) Soil and ground water samples will be tested to ascertain that there is no threat to ground water quality by leaching of heavy metals and other toxic contaminants.

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- (xiv) Construction spoils, including bituminous material and other hazardous materials, must not be allowed to contaminate watercourses and the dump sites for such material must be secured so that they should not leach into the ground water.
- (xv) Any hazardous waste generated during construction phase, should be disposed off as per applicable rules and norms with necessary approvals of the M.P. Pollution Control Board.
- (XVI) The diesel generator sets to be used during construction phase should be low sulphur diesel type and should conform to Environment (Protection) Rules prescribed for air and noise emission standards.
- (xvii) The diesel required for operating DG sets shall be stored in underground tanks and if required, clearance from Chief Controller of Explosives shall be taken.
- (xviii) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards and should be operated only during non-peak hours.
- (xix) Ambient noise levels should conform to residential standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase. Adequate measures should be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB/ MPPCB.
- (xx) Fly ash should be used as building material in the construction as per the provisions of Fly Ash Notification of September, 1999 and amended as on 27<sup>th</sup> August, 2003. As the site is located within the 100 Km of Thermal Power Stations.
- (xxi) Ready mixed concrete must be used in building construction.

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- (xxii) Storm water control and its re-use as per CGWB and BIS standards for various applications.
- (xxiii) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xxiv) Permission to draw ground water shall be obtained from the competent Authority prior to construction/operation of the project.
- (xxv) Separation of grey and black water should be done by the use of dual plumbing line for separation of grey and black water.
- (xxvi) 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.
- (xxvii) Use of glass may be reduced by upto 40% to reduce the electricity consumption and load on air conditioning. If necessary, use high quality double glass with special reflective coating in windows.
- (xxviii) Roof should meet prescriptive requirement as per Energy Conservation Building Code by using appropriate thermal insulation material to fulfill requirement.
- (xxix) Opaque wall should meet prescriptive requirement as per Energy Conservation Building Code which is proposed to be mandatory for all airconditioned spaces while it is aspirational for non-air conditioned spaces by use of appropriate thermal insulation material to fulfill requirement.
- (xxx) The approval of the competent authority shall be obtained for structural safety of the buildings due to earthquake, adequacy of fire fighting equipments, etc. as per National Building Code including protection measures from lightening etc.

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(xxxi) Regular supervision of the above and other measures for monitoring should be in place all through the construction phase, so as to avoid disturbance to the surroundings.

#### II. Operation Phase

- (i) The installation of the Sewage Treatment Plant (STP) 400 KLD capacity should be certified by an independent expert and a report in this regard should be submitted to the Ministry before the project is commissioned for operation. Treated affluent emanating from STP shall be recycled/reused to the maximum extent possible. Treatment of 100% grey water by decentralized treatment should be done. Discharge of unused treated affluent shall conform to the norms and standards of the M.P. Pollution Control Board. Necessary measures should be made to mitigate the odour problem from STP.
- (ii) The bio-medical waste generated should be disposed off as per the provisions of Bio-medical waste (Management and Handling) Rules 1988.
- (iii) All hazardous wastes generated in the activity shall be stored and disposed of as per the provision of the Hazardous Waste (Management, Handling & Transboundary Movement) Rules.
- (iv) The solid waste generated should be properly collected and segregated and be managed as per the provision of BMW (M&H) Rules. Wet garbage should be composted and dried to an inert solid waste should be disposed off to the approved sites for land filling after recovering recyclable materials.
- (v) All measures shall be taken to prevent percolation of wastes from the hospital premises in to the near by nallah.
- (vi) Diesel power generating sets proposed as source of back up power for elevators and common area illumination during operation phase should be

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of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use of low sulphur diesel. The location of the DG sets may be decided with in consultation with M.P. Pollution Control Board.

- (vii) Noise should be controlled to ensure that it does not exceed the prescribed standards. During night time the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations
- (viii) The green belt of the adequate width and density preferably with local species along the periphery of the plot shall be raised so as to provide protection against particulates and noise.
- (ix) Weep holes in the compound walls shall be provided to ensure natural drainage of rain water in the catchment area during the monsoon period.
- (x) Rain water harvesting for roof run- off and surface run- off, as plan submitted should be implemented. Before recharging the surface run off, pre-treatment must be done to remove suspended matter, oil and grease. The bore well for rainwater recharging should be kept at least 5 mts. above the highest ground water table.
- (xi) The ground water level and its quality should be monitored regularly in consultation with Central Ground Water Authority.
- (xii) Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided. Parking should be fully internalized and no public space should be utilized.
- (xiii) A Report on the energy conservation measures confirming to energy conservation norms finalize by Bureau of Energy Efficiency should be prepared incorporating details about building materials & technology, R & U Factors etc and submit to the Ministry in three months time.

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- (xiv) Energy conservation measures like installation of CFLs/TFLs for the lighting the areas outside the building should be integral part of the project design and should be in place before project commissioning. Use CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination. Use of solar panels may be done to the extent possible.
- (xv) Adequate measures should be taken to prevent odour problem from solid waste processing plant and STP.
- (xvi) The building should have adequate distance between them to allow movement of fresh air and passage of natural light, air and ventilation.
- (xvii) Project Proponent has to comply with the following commitments made during the SEAC/SEIAA meeting and the plan submitted for consideration of Upper lake and environment of the region.
  - a. Hospital being a sensitive its structures shall be designed/built according to the design parameters recommended by NBO for the buildings falling in seismic zone-II, to prevent it from the possible impacts due to earthquakes.
  - A new STP, shall be constructed towards eastern boundary of the site along with the construction of residential accommodation.
  - c. The existing structure for the ETP shall be dismantled and the new ETP will be constructed as per revised details and at least 9.0 m away from the boundary wall along the nallah.
  - d. The RCC boundary wall with adequate depth below ground level shall be constructed all along the nallah and with HDPE lining to prevent seepage. Depth of the boundary wall will be kept such that no effluent from the premises/ETP is percolated in to the nallah.

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- e. Characteristics of the raw and treated liquid waste from hospital activities have to be monitored regularly along with the measurement of Total Organic Carbon (TOC).
- f. Commitment for returning land of the existing green belt in 7.5 acres to the state government shall be fulfilled by Project Proponent.
- g. Provision of covered space enough to store BMW generated in two days and another covered storage for manure shall be provided in the premises as per provision.
- h. Rain water collection pits will be provided with oil/grease and silt trap to ensure safe and uncontaminated rain water for harvesting. The Project Proponent will ensure that no contaminated water is used for recharge. Regular monitoring of this water has to be conducted and reported to the authorities.
- Eight meters wide green belt should be created on other three boundaries (in addition to point f) of the premises even if the total green area exceeds 33% of the total plot area.

#### PART B. GENERAL CONDITIONS

- (i) The environmental safeguards contained in the EIA Report should be implemented in letter and spirit.
- (ii) The project proponent shall also submit six monthly reports on 1<sup>st</sup> June and 1<sup>st</sup> December of each calendar year on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the SEIAA of M.P., Regional Office of MoEF, Bhopal, the respective Zonal Office of CPCB and the SPCB.
- Officials from the Regional Office of MOEF, Bhopal who would be monitoring the implementation of environmental safeguards should be given full cooperation, facilities and documents / data by the project proponents during their inspection. A

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- complete set of all the documents submitted to SEIAA should be forwarded to the CCF, Regional office of MoEF, Bhopal.
- In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by the SEIAA.
- 6. The Ministry/SEIAA reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
- 7. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.
- These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and control of Pollution) act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006.
- 9. The project proponent should advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the M.P. Pollution Control Board and may also be seen on the website of the State Level Environment Impact Assessment Authority (SEIAA) at www.mpseiaa.nic.in. The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the Regional office of this Ministry at Bhopal.
- Any appeal against this Environmental Clearance shall lie with the National Environment Appellate Authority, if preferred, within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Act, 1997.

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- 12. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.
- 13. The proponent shall upload the status of compliance of the stipulated EC 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. The criteria pollutant levels namely; SPM, RSPM, SO<sub>2</sub>, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
- 14. The environmental 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 EC conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.

(Ashok Shah) Member Secretary, SEIAA

Endt No.

/SEIAA/EPCO/10

Dated:

Copy to:-

 The Secretary, Department of Housing & Environment, Government of Madhya Pradesh, Mantralaya, Bhopal

2. The Collector, Distt-Bhopal

The Commissioner, Municipal Corpn., Bhopal

4. The Member Secretary, Madhya Pradesh State Pollution Control Board, Paryavaran Parisar, E-5, Arera Colony, Bhopal-462016

The Jt.Director, Town & Country Planning, Bhopal
 Division, Monitoring Cell, MoEF, New Delhi- 110 003

The Regional Officer, MOEF, Bhopal

8. Guard file.

(Ashok Shah) Member Secretary, SEIAA

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# ANNEXURE-X FORM 4

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Dr. Ajay G90f\kO

To, Dale: . 31,03.1~

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(Au tho rized Sipnil torMiho,\$IgnutofY 01haYIJ Charitable Foundation Chirayu Medical ceuesc 81Ho~pili)I Bhopal-Indorc Highw,IY, Nell(Bj)IragMh Bhopal (M,P.) 462030

Encloser: 1, c.liljly 01 FOfl111J fOf £TP Sludge disposal dated 70.03;16 2, copy Qf FOil" 13 101 Used Oil disposal dated 30.06.16

	fto be submitted by Occupier/ (		preceding	period Apri/ to Mar	ch/	17 19	and the state of the state of the	ar jur m.c.				
1	Name and address of the (Period: APRIL 2015 to MARCH 2016)											
	Generator/Operator of Facility :	Chirayu Charitable Foundation (Chirayu Medical College & Hospital) Village-Bhainsakhedi,Bhopal-Indore Highway ,Near Bairagarh, Tehsil-Huzur, Distt. Bhopal 462030										
2	Name of the authorized person and full address with Telephone and Fax number	Ajay Goenka (Secretary) Chirayu Charitable Foundation Chirayu Medical College & Hospital Village-Bhainsakhedi, Bhopal-Indore Highway Near Bairagarh, Tehsif-Huzur, Distr. Bhopal 462030 Ph. No. 0755-6679139										
	Description of Hazardous Waste	P	Physical form with description				Chemical form					
		a	a Oil Spent Oil of DG si				ent Oil of DG sets & Trans	s & Transformer				
3		b	Solid Hazardous	<sup>2</sup> sludge								
		C	TOTAL SHOW A STANCE OF THE STA									
		100										
		d										
4	Quantity of Hazardous Wastes (in MT)  Type of Hazardous Waste  Quantity (in MT)		Quantity									
		Type Of Hazardous Waste		Opening Balance as on 1 <sup>st</sup> April			Sale/disposal during the financial Year	Closing Balance on 31 <sup>st</sup> March				
		8	Spent Oil	+	140 L (appro	x)	140 L (approx)	-				
		b	ETP sludge		325 Kg (appr	ox)	325 Kg (approx)	-				
		C					100					
		d										

5	Description of Storage of Hazardous Waste	:	HDPE drums					
6	Description of Treatment of Hazardous Waste :		Spent oil sold to authorized venders     ETP sludge sent to the Ramky MPWMP	No treatment facility available in our Hospital.				
			Name & address of Consignee	Mode of Packing	Mode of Transportation	Date of Transportation	Quantity ( In MT)	
7	Details of Transportation of Hazardous Waste		Mansapuran Perto Chem Pvt, Ltd. Mandideep, Raisen	Form 13 is at	140 L			
1			Ramky MPWMP Pithampur, Dist Dhar	HDPE Bags	Truck (Ramky Own Vehicle)	26.03.16	325 Kg	
1			Name & Address of Consignee	Mode of Packing	Mode of Transportation	Date of Transportation	Quantity ( In MT)	
8	Details of Disposal of Hazardous Waste	:	Mansapuran Perto Chem Pvt. Ltd. Mandideep, Raisen		Form 13 is attach	ned 140 L		
			Ramky MPWMP Pithampur, Dist Dhar	HDPE Bags	Truck (Ramky Own Vehicle)	26.03.16	325 Kg	
	t de provincia de cont back	+	Name and type of materia	Quantity (in MT)				
	Quantity of useful materials sent back to the Manufacturers* and others#	1	Manufacturers*	NA		NA		
			Others#	NA		NA COLLEGE		
	Place: Bhopal Date: 31.03.2016					Signatuda	ен орг	

# ANNEXURE-XI ENVIRONMENTAL MANAGEMENT PLAN