



टाटा स्मारक केंद्र
TATA MEMORIAL CENTRE

टाटा स्मारक अस्पताल
TATA MEMORIAL HOSPITAL

AA No.1151849

प. ऊ. वि. भारत सरकार का एक सहायता अनुदान प्राप्त संस्थान
A GRANT-IN-AID INSTITUTION OF THE DEPARTMENT OF ATOMIC ENERGY. GOVT OF INDIA

TMC/ACTREC/MPCB-14

Date: 12th October 2022

To,
The Chief Conservator of Forest,
Ministry of Environment, Forests & Climate
Regional Office (WCZ), Ground Floor, East Wing,
New Secretariat Building, Civil Lines, Nagpur- 440001

Sub: Submission of Six-Monthly Environmental Clearance Compliance Report.

Ref:

- Environmental Clearance granted for (Radiological Research Unit and Administrative block - RRU) and Centre for cancer Epidemiology (CCE, Archive and Record Storage) by State Level Environmental Impact Assessment Authority (SEIAA), Maharashtra vide letter No.: SEAC 2013 / CR- 101/TC-1, Dated: 8th April 2013 & Amendment in same on 11th December 2015.
- Expansion of TATA Memorial Hospital "Hemato Lymphoid Block" vide No. SEAC 2213/CR 325/TC II Dated: 12th January 2016.
- Environmental Clearance for Hadron Beam (Proton Therapy) Facility and Radiological Research Unit & Administration Block (RRU) Vide No. CIDCO/ACP(BP/DP/NT)/EC/ 2018 / 643; Date: 12.01.2018.
- Amended Environmental Clearance for Asha Niwas vide No. CIDCO/ACP(BP/DP/NT)/EC/2018/642 Date: 12.01.2018.
- Environment Clearance for the Expansion & Amendment for Bio Bank vide No. SEIAA-EC-0000000084 Dated 4th May 2017.
- Environment Clearance for Addition of one hospital "Shantilal Shanghvi Pediatric Hematolymphoid Cancer Centre" Vide No. SEIAA-EC-0000002065 dated 7th November 2019.

Respected Sir,

We have granted Environmental Clearance for existing and proposed project (Radiological Research Unit and Administrative block - RRU) and Centre for cancer Epidemiology (CCE, Archive and Record Storage), Expansion of TATA Memorial Hospital "Hemato Lymphoid Block" & Hadron Beam (Proton Therapy) Facility and Radiological Research Unit & Administration Block (RRU), Asha Niwas and Biobank at ACTREC, Plot No. 1 & 2, sector 22 at Khargar, Navi Mumbai.

Construction activities are started at site from 15th September 2013.

Contd...2/-

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डॉ. ई. बोरजेस मार्ग, परेल,
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#2#

In compliance to the conditions stipulated in Environmental Clearance we are submitting the six-monthly Compliance Status Report for the period of July 2021 – December 2021 along with the desired information and copies of documents are as under:

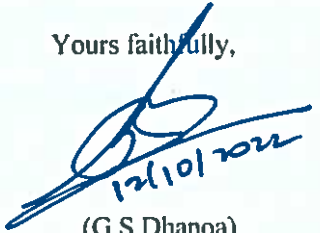
1. Data sheet
2. EC Compliance report.
3. Post Monitoring Report (July 2021 – December 2021)

We understand that the report prepared by M/s. Aditya Environmental Services Pvt. Ltd, Consultant is as per requirements.

We hope the above is to your satisfaction.

Thanking You,

Yours faithfully,



12/10/2022
(G S Dhanoa)
Chief Engineer, TMC

Incl: a/a

CC to:

1. The Member Secretary, Maharashtra Pollution Control Board, 3rd Floor, Kalpataru Point, Sion, Mumbai- 400 022.
2. Central Pollution Control Board, Parivesh Bhavan, Opp. VNC word office No. 10, Subhanpura, Vadodara.
3. The Secretary, Environment Department, Room No. 217, 2nd Floor, Mantralaya Annexe, Mumbai – 400 032.

Ref	EC No. SEAC 2013/CR-101/TC-1; Dated: 8 th April 2013 & amendment in same on 11 th December 2015
	EC No. SEAC 2213/CR 325/TC II; Dated: 12 th January 2016
	EC No. CIDCO/ACP(BP/DP/NT)/EC/2018/643; Date: 12 th January 2018
	EC No. CIDCO/ACP(BP/DP/NT)/EC/2018/642; Date: 12 th January 2018
	EC No. SEIAA-EC-0000000084 Dated 4 th May 2017
	EC No. SEIAA-EC-0000002065 dated 7 th November 2019
To	M/s. Tata Memorial Hospital
For	1. Existing and Proposed Project (Radiological Research Unit and Administrative block - RRU) and Centre for cancer Epidemiology (CCE, Archive and Record Storage) at ACTREC, Plot No. 1 & 2, sector 22 at Kharghar, Navi Mumbai.
	2. Expansion of TATA Memorial Hospital "Hemato Lymphoid Block" at plot 1 & 2, sector 22, Kharghar, Navi Mumbai
	3. Proposed construction of Hadron Beam (Proton Therapy) Facility and Radiological Research Unit & Administration Block (RRU) on the existing ACTREC campus of Tata Memorial Hospital at Kharghar by M/s. Tata Memorial Centre
	4. Proposed project of Addition of One Dormitory Building 'Asha Niwas' in the existing ACTREC campus of Tata Memorial Hospital at Kharghar by M/s. Tata Memorial Centre
	5. Expansion & Amendment in EC by addition of one structure "Bio Bank" in existing campus of Tata Memorial Hospital by M/s. Tata Memorial Centre
	6. Addition of one hospital "Shantilal Shanghvi Pediatric Hematolymphoid Cancer Centre" in ACTREC
Status	Construction of total 16311.96 Sq. mt. area is completed out of 110712.03 Sq. mt. Built up area.

Construction phase

S. No.	Conditions	Compliance Status
i.	This environmental Clearance is issued subject to land use verification. Local authority / planning authority should ensure this with respect to rules, Regulations, Notifications, Government Resolutions, Circulars, etc. issued if any. This environmental Clearance issued with respect to the environmental consideration and it does not mean that State Level Impact Assessment Authority (SEIAA) approved the proposed land use.	Yes, we have received Environmental Clearance for - <ul style="list-style-type: none"> • Radiological Research Unit and Administrative Block - RRU and Centre for Cancer Epidemiology (CCE, Archive and Record Storage) vide letter No: SEAC 2013 / CR 101/TC-1, Dated: 8th April 2013 & • Amendment in same on 11th December 2015 & for Expansion of TATA Memorial Hospital "Hemato Lymphoid Block" vide No. SEAC 2213/CR 325/TC II Dated: 12th January 2016 and • Proposed construction of Hadron Beam (Proton Therapy) Facility and Radiological Research Unit & Administration Block(RRU)vide CIDCO/ACP(BP/DP/NT)/ EC/2018/643; Date: 12th January 2018 & • Amended EC for proposed project of addition of one Dormitory Building 'Asha Niwas' vide No. CIDCO/ACP(BP/DP/NT)/EC/2018/642; Date: 12th January 2018 & • SEIAA-EC-0000000084 Dated 4th May 2017 for Bio Bank and Environment Clearance for Addition of one hospital "Shantilal Shanghvi Pediatric Hematolymphoid Cancer Centre" in existing ACTREC vide no. SEIAA-EC-0000002065 dated 7th November 2019. Copies of Environmental Clearance & Amendment in same are attached as Annexure - II.
i.	The height, Construction built up area of proposed construction shall be in	The height, Construction built up area of proposed construction will be in accordance with the existing FSI/FAR norms of the urban local body. Plan approved from CIDCO (Plan Approving Authority). Commencement

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	<p>accordance with the existing FSI/FAR norms of the urban local body & it should ensure the same along with survey number before approving layout plan & before according commencement certificate to proposed work. Plan approving authority should also ensure the zoning permissibility for the proposed project as per the approved development plan of the area.</p>
iii.	<p>Certificate for CCE Building & RRU Building, Archive & Record Storage Building, Hemato Lymphoid Block, Hadron & RRU, Asha Niwas, Biobank and Sanghvi Block is attached as Annexure - III.</p> <p>NOC for Height of Civil Aviation Department for Building/ Structure of Plot No. 1 & 2, Asha Niwas and Biobank is granted attached as Annexure - IV.</p> <p>NOC received from Fire Department for proposed Hospital Building (Hemato Lymphoid Block) & for Archive & Record Storage Building and Shanghvi Block is attached as Annexure - V.</p> <p>We have obtained Consent to Establish (Radiological Research Unit and Administrative block - RRU) and Centre for cancer Epidemiology (CCE, Archive and Record Storage) & Expansion of TATA Memorial hospital "Hemato Lymphoid Block" vide No. Format 1.0/ BO/ CAC-Cell/ UAN No. 0000026705/ CAC - 1801000090 Dated: 03/01/2018.</p> <p>We have also obtained for Consent to Establish for construction of Hadron Beam (Proton Therapy) Facility and Radiological Research Unit & Administration Block (RRU) on the existing ACTREC campus of Tata Memorial Hospital vide No. Format 1.0/ BO/ JD(WPC)/ UAN No. 00000054179/CE/CC -2002000186 dated: 05/02/2020.</p> <p>Both copies are attached as Annexure - VI.</p>
iv.	<p>All required sanitary and hygienic measure should be in place before starting construction activities and to be maintained throughout construction phase.</p> <p>Following sanitary & hygienic measures are being followed at site.</p> <ol style="list-style-type: none"> 1. Safe & clean water for workers. 2. Temporary toilets connected to soak pit followed by septic tank. 3. Regular medical checkups. 4. Regular disposal of Solid waste to approved landfilling site after segregation and sale of recyclables & inert. 5. Accumulation of stagnant water will be avoided to prevent breeding of mosquitoes. <p>The above measures will be maintained throughout the construction phase.</p>
v.	<p>Project proponent shall ensure completion of STP, MSW disposal facility, green belt development prior to occupation of the buildings. No physical occupation or allotment will be given unless all above said environmental infrastructure is installed and made functional including water requirement in Para 2. Prior certification from appropriate authority shall be obtained.</p> <p>Sewage generated from the Centre for cancer Epidemiology (CCE) and Archive and Record Storage are connected to CIDCO sewer network which have STP at the end. Occupation Certificates for Centre for Cancer Epidemiology (CCE), Archive & Record storage, Biobank and Hadron Project are received & are attached as Annexure - VII.</p> <p>Sewage generated after the completion of ongoing projects Radiological Research Unit & Administrative Block (RRU), proposed expansion "Hemato Lymphoid Block" and for Asha Niwas will be connected to CIDCO sewer network which have STP at the end, the treated water shall be supplied by CIDCO to ACTREC for Horticulture. STP of 40 cmd capacity for Hadron Project is commissioned successfully. Photograph of STP enclosed as Annexure - VIII.</p> <p>Considering on-going projects as well as proposed Construction of "Shantilal Shanghvi Pediatric Hematolymphoid Cancer Centre", a</p>

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		<p>centralized STP of 600 KLD capacity is proposed for ACTREC campus.</p> <p>We will take care for proper disposal of Solid waste to approved landfilling site after segregation and sale of recyclables & inert and green belt development. Prior certificates will be obtained from respective authorities.</p>
vi.	<p>Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche and First Aid Room etc.</p>	<p>Yes, Provision for housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets with drainage connection to existing sewer network, safe drinking water, medical health care, first aid room etc.</p> <p>Please refer enclosed Annexure - IX for facilities for labours provided at site.</p>
vii.	<p>Adequate drinking water and sanitary facilities should be provided for construction workers at the site. Provision should be made for mobile toilets. The safe disposal of wastewater and solid waste generated during the construction phase should be ensured.</p>	<ul style="list-style-type: none"> • Yes, safe & clean drinking water is provided through CIDCO to workers. Again, RO plants are installed at site. • Sewage generated from the project is connected to CIDCO sewer network which have STP at the end, the treated water being supplied by CIDCO to ACTREC for Horticulture. • The solid waste generated from labour camp being sent to approved landfilling site after segregation and sale of recyclables & inerts. • Other construction waste generated during construction which includes debris, concrete, steel and other metals, bricks, pallets, packaging and paper products, railings, door and window casings, fixtures, tiles, furnishings etc. • Accumulation of stagnant water will be avoided to prevent breeding of mosquitoes. • Drinking Water Analysis is Carried Out regularly. Please refer Post monitoring report. <p>Construction Waste Management: Material wastes like bricks, cement etc. will be used as fill material and concrete would be recycled and reused at the site. An adequate facility for storage of waste materials will be made on site.</p>
viii.	<p>The solid waste generated should be properly collected and segregated. Dry / inert solid waste should be disposed off to the approved sites for land filling after recovering recyclable material.</p>	<ul style="list-style-type: none"> • Total Non - Hazardous Solid waste generated at the site is 110.50 Kg/Day for existing and 788.5 Kg/Day for proposed facility which include Construction debris, Dry Waste, Wet Waste & STP Sludge (Dry Sludge) For Biobank- Dry-Existing: 187.5 Proposed: 0.75 Wet-Existing: 187.5 Proposed: 0.5 • STP Sludge: (Dry Sludge): 0.2 Kg/Day For Biobank-0.1 Kg/Day • Biomedical Waste generation is 1000 Kg/ Month (33.33 Kg/Day) for existing & 6610.75 Kg/month from proposed facility. For Biobank-Existing: 4602.75 Proposed: N.A. • Hazardous waste: 8 Kg/Day Approx. <p>For Shanghvi Block - Dry-Existing: 95.2 Wet-Existing: 74.8</p>

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		<ul style="list-style-type: none"> • STP Sludge: (Dry Sludge): 25 Kg/Day • Biomedical Waste generation is 180Kg/day. • Hazardous waste: As per generation. <p>Disposal of Solid Waste:</p> <ul style="list-style-type: none"> • The construction debris will be utilized for filling and leveling of ground. • Metal waste will be disposed for recycling through scrap dealers. <ul style="list-style-type: none"> • The solid waste generated due to packaging material will be preferably recycled and /or reused. • Dry waste: - segregation and sale of recyclables, inerts to approved landfill site. • Wet waste: - biodegradable waste to compost. • STP Sludge (Dry Sludge): mix with wet waste and convert that into compost. • Biomedical Waste: - Biomedical waste will be sent to nearest Common Biomedical Waste Treatment and Disposal facility (CBMWTSDF) Authorized by MPCB. • Hazardous Waste: Will be send to authorized Pre-processor
ix.	Wet garbage should be treated by Organic Waste Converter and treated waste (manure) should be utilized in the existing premises for gardening. And, no wet garbage will be disposed outside the premises. Local authority should ensure this.	Wet garbage generated from the construction of the building will be treated in Nisargruna Biogas Plant provided at the ground level in the premises. The manure thus generated will be used for gardening. Photographs and details of Nisargruna biogas plant are enclosed as Annexure - X.
x.	Arrangement shall be made that wastewater and storm water do not get mixed.	Yes, Separate drainage line will be provided to prevent mixing of wastewater and storm water.
xi.	All the topsoil excavated during construction activities should be stored for use in horticulture landscape development within the project site.	Yes, at CCE and Hematolymphoid Block topsoil used for maintaining green belt development. At other buildings where works are in progress, all the topsoil and construction debris will be used for maintaining green belt development and filling the plot respectively.
xii	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.	Soil received from excavation in foundation is utilized for the leveling.
xiii	Green belt development shall be carried out considering CPCB guidelines including selection of plant species and in consultation with the local DFO/ Agricultural Dept.	Green belt development will be carried out as per CPCB guidelines. Currently, Green belt development are in progress at Hadron, Asha Niwas Buildings & Shanghvi Block Please refer Annexure - XI for green belt developed within site.
xiv	Disposal of muck during construction phase should be create any adverse effect on	<ul style="list-style-type: none"> • Total Non - Hazardous Solid waste generated at the site from existing/proposed facility which include Construction debris, Dry


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<p>the neighboring communities and be disposed taking the necessary precaution for general safety and health aspects of people, only in approval sites with the approval of competent authority.</p>	<p>Waste, Wet Waste & STP Sludge (Dry Sludge)</p> <ul style="list-style-type: none"> 610 cu.m. topsoil out of 990 cu.m. preserved topsoil is used for landscape development at Hematolymphoid Block. <table border="1" data-bbox="587 291 1428 716"> <thead> <tr> <th>Waste Generation</th> <th>Existing</th> <th>Proposed Hematolymphoid Block and Hadron & RRU) & Asha Niwas</th> <th>Proposed Shanghvi Block</th> <th>Proposed Bio Bank</th> </tr> </thead> <tbody> <tr> <td>Non-Biodegradable</td> <td>55.25 kg/day</td> <td>600.74 kg/day</td> <td>95.2 kg/day</td> <td>0.75 kg/day</td> </tr> <tr> <td>Bio-degradable waste</td> <td>55.25 kg/day</td> <td>477.56 kg/day</td> <td>74.8 kg/day</td> <td>0.5 kg/day</td> </tr> <tr> <td>STP Sludge</td> <td>0.1 kg/day</td> <td>0.1 kg/day</td> <td>25 kg/day</td> <td>0.1 kg/day</td> </tr> </tbody> </table> <p>Disposal of Solid Waste:</p> <ul style="list-style-type: none"> The excavated topsoil & construction debris was partly used for backfilling and partly will be used for maintaining slope and filling the plot. Dry waste: segregation and sale of recyclables, inert to approved landfill site. Wet waste: biodegradable waste to compost. STP Sludge (Dry Sludge): mix with wet waste and convert that into compost, used as manure. 	Waste Generation	Existing	Proposed Hematolymphoid Block and Hadron & RRU) & Asha Niwas	Proposed Shanghvi Block	Proposed Bio Bank	Non-Biodegradable	55.25 kg/day	600.74 kg/day	95.2 kg/day	0.75 kg/day	Bio-degradable waste	55.25 kg/day	477.56 kg/day	74.8 kg/day	0.5 kg/day	STP Sludge	0.1 kg/day	0.1 kg/day	25 kg/day	0.1 kg/day
Waste Generation	Existing	Proposed Hematolymphoid Block and Hadron & RRU) & Asha Niwas	Proposed Shanghvi Block	Proposed Bio Bank																	
Non-Biodegradable	55.25 kg/day	600.74 kg/day	95.2 kg/day	0.75 kg/day																	
Bio-degradable waste	55.25 kg/day	477.56 kg/day	74.8 kg/day	0.5 kg/day																	
STP Sludge	0.1 kg/day	0.1 kg/day	25 kg/day	0.1 kg/day																	
<p>xv) Soil & 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.</p>	<p>Yes, the soil sample monitoring is carried out through MoEF recognized laboratory regularly and the reports are submitted to the ministry.</p> <p>Post Monitoring Reports are attached as Annexure - I.</p>																				
<p>xvi) Constructions spoils, including bituminous material and other hazardous materials must not be allowed to contaminate watercourses and the dumpsites for such material must be secured so that they should not leach into the ground water.</p>	<p>There is no generation of any bituminous material or any hazardous material at the site till date & if generated will be disposed as per the MPCB norms.</p>																				

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xvii	Any hazardous waste generated during construction phase should be disposed off as per applicable rules and norms with necessary approvals of the Maharashtra pollution control Board.	<p>There is no generation of Hazardous waste at the Complex till date, if generated will be disposed as per MPCB norms.</p> <p>Waste generation in Operational Phase:</p> <p>Biomedical waste generation</p> <ul style="list-style-type: none"> • For RRU & CCE: 1000 Kg/Month • For Hardon & RRU: 2008 Kg/Day • For Hemato Lymphoid Block: Hazardous waste generation- 8 Kg/Day approx. + Biomedical Waste generation- 1000 Kg/Month • For Asha Niwas: Existing: Existing- 4602.75 Proposed- NA • For Bio Bank: Existing- 4602.75 Proposed- NA • For Shanghavi Block: Existing- 2194.76 kg/day + Proposed- 180 kg/day <p>Biomedical waste generated from proposed facility (Hadron Beam (Proton therapy) & Radiological Research Unit and Administration Block - RRU) and Centre Epidemiology (CCE, Archive and Record Storage), Hematolymphoid block and Shanghvi Block will be disposed off to the nearest Common Biomedical Waste Treatment and Disposal Facility (CBMWTSDF) authorized by MPCB.</p>
xviii	The diesel generator sets to be used during construction phase should be low sulphur diesel type and should conform to environments (Protection) Rules prescribed for air and noise emission standards.	<p>Yes, DG sets of 2 nos. × 1500 KVA are proposed for Hematolymphoid Block, DG sets of 2 Nos. × 625 and 2 Nos. × 2000 KVA are proposed for RRU and Hadron respectively & DG sets of 3 Nos x 1250 KVA are proposed for Sanghvi Block which will be operated only during power failure during operation phase & will be provided with enclosure. Diesel generating sets will be of low sulphur diesel type as per environments (Protection) Rules prescribed for air and noise emission standards.</p> <p>1 Nos. of DG set of capacity 50 KVA is provided for Biobank.</p> <p>Photographs of DG sets are enclosed as Annexure - XII.</p>
xix	The diesel required for operating DG sets shall be stored in underground tanks and if required, clearance from concern authority shall be taken.	<p>AS per norms, 990 litre day tank is provided with each DG set.</p>
xx	Vehicle hired for bringing construction material to the site should be in good condition and should have pollution check certificate and should conform to applicable air and noise emission standards and should be operated only during non- peak hours.	<p>Right now, the construction of Hematolymphoid Block & RRU Building are in progress.</p> <p>The vehicles hired for bringing construction material such as concrete, sand, cement etc at site will have valid PUC. All vehicles are less than 8 years old only. The vehicles used for bringing construction material will be operated only during non-peak hours.</p>
xxi	Ambient noise levels should be conform to residential standards both during day & night Incremental pollution loads on the ambient air & noise quality should be closely monitored during construction phase. Adequate	<p>Yes, the Ambient Noise & Ambient Air monitoring will be regularly carried out at the boundary wall of the premises as per environmental protection act 1986. Please refer Annexure - 1 for post monitoring reports.</p> <p>Following measures will be taken to reduce load on Ambient Noise & Air:</p> <ul style="list-style-type: none"> • Temporary barricades will erect around the premises.

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	measures should be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB/MPCB.	<ul style="list-style-type: none"> ▪ The noise generating activities will carried out only during daytime. ▪ High noise generating machineries will provide with noise reducing measure. ▪ Transportation of the construction material will be carried out during daytime. ▪ Separate Entry & exist for the construction vehicles will provided.
xxii	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 th August, 2003. (The above condition is applicable only if the project site is located within the 100 km of Thermal Power Stations).	Project site is not located within 100 km of Thermal Power stations. However, fly ash is being utilizing in ready mix concrete.
xxiii	Ready mixed concrete must be used in building construction.	Yes, Condition is noted. Ready mix concrete was used for the construction of CCE, Archive & Record storage, Biobank and Hadron Building, of which construction work is completed. It is being used for the ongoing construction works of Hematolymphoid Block, RRU and Asha Niwas and will be used for proposed Construction of Sanghvi Block.
xxiv	The approval of component authority shall be obtained for structural safety of the buildings due to any possible earthquake, adequacy of firefighting equipment etc. as per National building Code including measures from lighting.	<p>Yes, we have received approval for Construction of Centre for Cancer Epidemiology (CCE) from RCC Consultant for structural safety of the building due to any possible earthquake, adequacy of fire-fighting equipment's etc. as per National Building Code including protection measures form lighting etc.</p> <p>Construction of Centre for Cancer Epidemiology (CCE), Archive & Record Storage building, Biobank and Hadron are completed. Structural stability certificates are enclosed as Annexure - XIII.</p>
xxv	Storm water control and its re-use as per CGWB and BIS standards for various applications.	<p>The harvested rainwater will be used for secondary purposes such as flushing and gardening.</p> <p>Detailed drawing of storm water drainage pattern and details of rainwater harvesting system at site are enclosed as Annexure - XIV.</p>
xxvi	Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.	<p>Following best practices are being followed at site to reduce water demand.</p> <p>1) Pre-mixed concrete i.e. RMC concrete is being used at site. 2) Curing is being done at site by sprinkling water over hessian cloth.</p>
xxvii	The ground water level and its quality should be monitored regularly in consultation with Ground Water Authority.	Yes, Ground water level and quality will be monitored regularly through MoEF recognized laboratory.
xxviii	The installation of the Sewage Treatment Plant (STP) should be certified by an independent expert and a report in this regard should	Sewage generated from the project will be connected to CIDCO sewer network which have STP at the end, the treated water shall be supplied by CIDCO to ACTREC for Horticulture. Copy of sanction letter from CIDCO for treatment of sewage from ACTREC is attached as Annexure - XV . At Hadron Building, installation of 40cmd capacity STP is completed.

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	be submitted to the ministry before the project is commissioned for operation. Treated effluent emanating from STP shall be recycled/reused to the maximum extent possible. Treatment of 100 % grey water by decentralized treatment should be done. Necessary measures should be made to mitigate the odour problem from STP.	Considering on-going projects as well as proposed Construction of "Shantilal Shanghvi Pediatric Hematolymphoid Cancer Centre", a centralized STP of 600 KLD capacity is proposed for ACTREC campus.
xxix	Local body should ensure that no occupation certification is issued prior to operation of STP/MSW site etc. with due permission of MPCB.	Yes. we have received Occupation Certificates for Centre for Cancer Epidemiology (CCE), Archive & Record storage, Biobank and Hadron Project. Copies of same are enclosed as Annexure - VII.
xxx	Permission to draw ground water shall be obtained from the Competent Authority prior to construction / operation of the project.	During the construction of projects, water for construction purpose was arranged by Contractors through water tankers bought from outside the campus and therefore Ground water was not used for the construction purpose. To draw ground water for construction purpose, necessary permission will be obtained.
xxxii	Separation of grey and black water should be done by the use of dual plumbing line for separation of grey and black water.	Yes, dual plumbing line are designed and constructed at CCE, Archive & Record Storage and Hadron Building for separation of grey and black water. And for Hematolymphoid Block, RRU, and Asha Niwas Building dual plumbing lines are designed and now the construction activities are in progress. For Sanghvi Block, dual plumbing lines will be designed and provided.
xxxiii	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.	Yes, Fixtures of showers, toilets, flushing and drinking are of low flow by the use of aerators, pressure reducing valve & sensor-based control at CCE, Archive & Record Storage and Hadron Building. And, at other buildings i.e. Hematolymphoid Block, RRU, and Asha Niwas & Proposed Shanghvi Block it is considered and will be provided during construction.
xxxiii	Use of glass may be reduced up to 40 % to reduce the electricity consumption and load on air conditioning. If necessary, use high quality double glass with special reflective coating in windows.	Yes. Use of glass is restricted to minimum requirement.
xxxiv	Roof should meet prescriptive requirement as per Energy Conservation Building Code by using appropriate thermal insulation material to fulfill requirement.	Yes. Underdeck insulation is provided at terrace slab level at CCE and at AHU rooms at first floor of Hadron Building. It will be provided at other buildings too as per the prescriptive requirement as per Energy Conservation Building code.

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xxxv	<p>Energy conservation measures like installation of CFLs / TFLs for the lighting the areas outside 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 like installing solar streetlights, common solar water heater system. Project proponent should install, after checking feasibility, solar plus hybrid non-conventional energy source as source of energy.</p>	<p>Yes, the condition is noted & is complied at CCE Building by providing solar operated street lighting system at entrance.</p> <p>At Hadron Building, following Energy conversation measures are considered in design and accordingly work is completed.</p> <ol style="list-style-type: none"> Solar power panel LED lighting system LED street lighting Energy efficient drives <p>At Hematolymphoid Block & RRU, following Energy conversation measures are considered in design and work is in progress:</p> <ol style="list-style-type: none"> LED lighting system LED street lighting Energy efficient drives <p>Energy Conservation Measures at Shanghvi Block</p> <ol style="list-style-type: none"> Use of LED for Lighting Use of LED for Stair-case Use of BEE 5-star certified appliance for normal power Use of energy star rated Computers / Equipments for Computer Power Use of BEE Certified Motors for AHU Load Use of High Cop Chillers with VFD for HVAC chillers Use of EFF-1 Motors, Variables Speed Pumping System for HVAC Pumping Use of BEE Certified Motors for Medical Equipment & bed head panel Use of Group controls and Variable speed drives for Lifts Use of Daylight based controls + LED light fitting for Street Light Use of Daylight based controls + LED light fitting for landscape lighting Use of High Efficiency heat pumps for Hot water system Use of CO sensors and VFD Fans for Ventilation & exhaust system Maximum saving due to Solar Water Heating system Maximum saving due to Solar PV cells
xxxvi	<p>Diesel power generating sets proposed as source of backup power for elevators and common area illumination during operational phase should be of enclosed type and conform to rules made under the environment (Protection) Act, 1986. The height of stack of D.G. sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use low sulphur diesel. The location of the DG Sets may be decided with in consultation with</p>	<p>Yes, DG sets are operated only during power failure & are being provided with enclosure.</p>

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	Maharashtra Pollution Control Board.	
xvii	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.	Yes. Regular Noise Monitoring is carried out by MoEF recognized laboratory. Post monitoring reports are attached as Annexure - I.
xviii	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.	Parking is fully internalized to avoid traffic congestion. Parking details for Hadron are as follows: <ul style="list-style-type: none"> • 2-wheeler: 4 nos. • 4-wheelers: 47 nos. Public transport: 02 vehicles for approx. 100 staff. Width of all Internal roads: main road = 11.00 m (both lane) + footpath on both sides, secondary roads= 6.0 m (lane). For Hematolymphoid Block: <ul style="list-style-type: none"> • 2-wheeler: 08 nos. • 4-wheelers: 90 nos. • Total area for car parking: 2300 Sq.m. • Type of parking: OPEN • Area per car including driveway provided for car parking: 25.5 Sq.m. • Width of all Internal roads (m): 9.00 mts /6.00 mts /5.00 mts driveway For Asha Niwas: Total Parking area: 437 sq.m. Area per car: 12.5 sq.m. No. of 2 wheelers approved : 11 No. of 4 wheelers approved: 159
xxix	Opaque wall should meet prescriptive requirement as per Energy Conservation Building Code, which is proposed to be mandatory for all air- conditioned spaces while it is aspirational for non - air- conditioned spaces by use of appropriate thermal insulation material to fulfill requirement.	The walls will meet all prescriptive requirements as per Energy Conservation Building Code.
xi	The building should have adequate distance between them to allow movement of fresh air and passage of natural light, air, and ventilation	Yes, buildings are constructed in with adequate distance between them to allow movement of fresh air and passage of light to the residential premises

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xli	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.	Yes, above condition is complied with. Regular monitoring of various environmental parameters is carried out. Please refer post monitoring reports attached with compliance as Annexure - I.
xlii	Under the provision of Environmental (Protection) Act, 1986, legal action shall be initiated against the project proponent if it was found that construction of the project has been started without obtaining environmental clearance.	We have received Environmental Clearance from ministry for - <ul style="list-style-type: none"> • Radiological Research Unit and Administrative Block - RRU and Centre for Cancer Epidemiology (CCE, Archive and Record Storage) vide letter No: SEAC 2013 / CR 101/TC-1, Dated: 8th April 2013 & • Amendment in same on 11th December 2015 & for Expansion of TATA Memorial Hospital "Hemato Lymphoid Block" vide No. SEAC 2213/CR 325/TC II Dated: 12th January 2016 and • Proposed construction of Hadron Beam (Proton Therapy) Facility and Radiological Research Unit & Administration Block (RRU) vide CIDCO/ACP(BP/DP/NT)/ EC/2018/643; Date: 12th January 2018 & • Amended EC for proposed project of addition of one Dormitory Building 'Asha Niwas' vide No. CIDCO/ACP(BP/DP/NT)/EC/2018/642; Date: 12th January 2018 & • SEIAA-EC-0000000084 Dated 4th May 2017 for Bio Bank and Environment Clearance for Addition of one hospital "Shantilal Shanghvi Pediatric Hematolymphoid Cancer Centre" in existing ACTREC vide no. SEIAA-EC-0000002065 dated 7th November 2019.
xliii	Six monthly monitoring reports should be submitted to the Department and MPCB.	Yes, we are submitting Six monthly environmental clearance compliance reports to Department and MPCB regularly.
xliv	A complete set of all the documents submitted to Department should be forwarded to the MPCB	Yes, a complete set of all the documents submitted to MoEF shall be forwarded to MPCB.
xlvi	In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Department.	Yes, in the case of any change(s) in the scope of the project, fresh appraisal will be taken.
xlvii	A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.	Yes, separate environment management cell will be set up for implementation of the stipulated environmental safeguards.
xlviii	Separate funds shall be allocated for implementation of environmental protection measures EMP along with item - wise breakup. These cost shall be included as part of project cost. The funds earmarked for the environment protection measures shall not be	Separate funds are maintained for Environment Management Plan. Please refer Environment Management Plan for Hematolymphoid Block, Hadron & RRU, Asha Niwas and Sanghvi Block enclosed as Annexure - XVI.

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	diverted for other purposes and year wise expenditure should reported to the MPCB & this department.	
xlvi	The project management shall advertise at least in two local newspapers widely circulated in the region around the project, one of which shall be in the Marathi language of the local concerned within seven days of issue of this letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the Maharashtra Pollution Control Board and may also be seen at Website at http://ec.maharashtra.gov.in .	Yes, we have published the advertisement in two local newspapers. Same is attached as Annexure - XVII.
xlvi	Project management should submit half yearly compliance reports in respect of the stipulated prior environmental clearance terms and conditions in hard & soft copies to the MPCB & this department, on 1 st June & 1 st December of each calendar year.	Half yearly compliance reports are submitted to the MPCB & concerned department.
li	A copy of the clearance letter shall be sent by proponent to the concerned Municipal Corporation 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.	Noted
li	The proponent shall also submit six monthly reports on 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	Yes, monitoring at the site is carried out through MoEF recognized Laboratory regularly. Please refer Annexure - I.

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	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 ₂ , NO _x (ambient levels as well as stack emissions) or critical sector 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.	
ii	The project proponent shall also submit six monthly reports 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 respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.	Yes, we are submitting Six monthly environmental clearance compliance report regularly. Ack. copy of last six-monthly compliance report submitted for period of January 2021 - June 2021 is enclosed herewith as Annexure - XVIII.
liii	The environmental statement for each financial year ending 31 st 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 condition and shall also be sent to the respective Regional Office of MoEF by e-mail.	Yes, Environment statement will be submitted to MPCB according to the condition in consent.

Additional Conditions as per Environmental Clearance vide No. SEAC 2213/CR 352/TC II

i	This environmental clearance is issued subject to land use verification. Local authority/ planning authority should ensure this with respect to Rules, Regulations, notifications, Government Resolutions,	<p>Yes, above condition is noted.</p> <ul style="list-style-type: none"> • We have already received Environmental Clearance wide letter no. SEAC 2013/CR-101/TC-1; Dated: 8th April 2013 & amendment in same on 11th December 2015. • Expansion in EC for Hemato Lymphoid Block is received vide letter SEAC 2213/CR 352/TC II dated 12th January 2016. • Proposed construction of Hadron Beam (Proton Therapy) Facility and Radiological Research Unit & Administration Block (RRU) vide
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<p>Circular etc. issued if any. Judgements/ orders issued by Hon'ble High Court, Hon'ble NGT, Hon'ble Supreme Court regarding DCR provisions, environmental issues applicable in this matter should be verified. PP should submit exactly the same plans appraised by concern SEAC and SEIAA. If any discrepancy found in the plans submitted or details provided in the above para may be reported to environment department. This environmental clearance issued with respect to the environmental consideration and it does not mean that State Level Impact Assessment Authority (SEIAA) approved the proposed land use.</p>	<p>CIDCO/ACP(BP/DP/NT)/ EC/2018/643; Date: 12th January 2018.</p> <ul style="list-style-type: none"> Amended EC for proposed project of addition of one Dormitory Building 'Asha Niwas' vide No. CIDCO/ACP(BP/DP/NT)/EC/2018/642; Date: 12th January 2018 & SEIAA-EC-0000000084 Dated 4th May 2017 for Bio Bank. Environment Clearance for Addition of one hospital "Shantilal Shanghvi Pediatric Hematolymphoid Cancer Centre" in existing ACTREC vide no. SEIAA-EC-0000002065 dated 7th November 2019.
<p>ii E- waste shall be disposed through Authorized vendor as per E - waste (management and handling) Rules, 2011</p>	<p>Not Applicable, No E- waste will be generated from the proposed project. If generated any will be disposed off as per E - waste (management and handling) Rules, 2011.</p>
<p>iii This environmental Clearance is issued subject to utilization of excess treated water.</p>	<p>Yes, Total water requirement for existing & proposed expansion is enclosed as Annexure - XIX.</p>
<p>iv Occupation Certificate shall be issued to the project only after ensuring availability of drinking water and connectivity of the sewer line to the project site.</p>	<p>Yes, Occupation Certificate will be obtained only after ensuring availability of drinking water and connectivity of the sewer line to the project site.</p>
<p>v Provide reserve parking at least three ambulances near the entrance, one for fire tender and one for physically challenged persons</p>	<p>Reserve parking is provided for three ambulances near main entrance and one for fire tender one for physically challenged persons.</p>
<p>vi PP has to abide by the conditions stipulated by SEAC & SEIAA.</p>	<p>Yes, all conditions mentioned will be followed by PP.</p>
<p>vii Project proponent shall ensure completion of STP, MSW disposal facility, green belt development prior to occupation of the building. As</p>	<p>Existing Sewage generation is about 108.14 m³. Additional sewage generated from proposed hospital facility (Hematolymphoid Block) will be about 160 m³ and 100 m³ from the project Hadron & RRU, will be connected to CIDCO Sewer network which have STP at the end, the treated water shall be supplied by CIDCO to ACTREC for gardening. In</p>

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<p>agreed during the SEIAA meeting, PP to explore possibility of utilizing excess treated water in the adjacent area for gardening before discharging it into sewer line. No physical occupation or allotment will be given unless all above said environmental infrastructure is installed and made functional including water requirement in Para 2. Prior certification from appropriate authority shall be obtained.</p>	<p>addition, 40cmd capacity STP is commissioned at Hadron site. Solid waste generated from existing Hospital facility will be sent to approved landfilling site after segregation and sale of recyclables & inert regularly.</p> <p>Considering on-going projects as well as proposed Construction of "Shantilal Shanghvi Pediatric Hematolymphoid Cancer Centre", a centralized STP of 600 KLD capacity is proposed for ACTREC campus and now the construction work is in progress.</p>																				
<p>viii Wet garbage should be treated by Organic Waste Converter and treated waste (manure) should be utilized in the existing premises for gardening. And, no wet garbage will be disposed outside the premises. Local authority should ensure this.</p>	<p>Yes, Total waste generation in the pre-construction and construction phase:</p> <table border="1" data-bbox="592 763 1452 1137"> <thead> <tr> <th>Waste Generation</th> <th>Existing</th> <th>Proposed (Hematolymphoid Block and Hadron & RRU)</th> <th>Proposed Bio Bank</th> <th>Proposed Shanghvi Block</th> </tr> </thead> <tbody> <tr> <td>Non-Biodegradable</td> <td>55.25 kg/day</td> <td>513.8 kg/day</td> <td>0.75 kg/day</td> <td>95.2 kg/day</td> </tr> <tr> <td>Bio-degradable waste</td> <td>55.25 kg/day</td> <td>274.7 kg/day</td> <td>0.5 kg/day</td> <td>74.8 kg/day</td> </tr> <tr> <td>STP Sludge</td> <td>0.1 kg/day</td> <td>0.1</td> <td>0.1 kg/day</td> <td>25 kg/day</td> </tr> </tbody> </table> <p>Mode of disposal:</p> <ul style="list-style-type: none"> • Dry Waste: Segregation and sale of recyclables, inserts to approved landfill site • Wet Waste: Wet garbage generated from the construction of the building will be treated in vermiculture plant provided at the ground level in the premises. The manure thus generated will be used for gardening. • STP Sludge (Dry Sludge): Used as manure. 	Waste Generation	Existing	Proposed (Hematolymphoid Block and Hadron & RRU)	Proposed Bio Bank	Proposed Shanghvi Block	Non-Biodegradable	55.25 kg/day	513.8 kg/day	0.75 kg/day	95.2 kg/day	Bio-degradable waste	55.25 kg/day	274.7 kg/day	0.5 kg/day	74.8 kg/day	STP Sludge	0.1 kg/day	0.1	0.1 kg/day	25 kg/day
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DATA SHEET

1. Project type: River-valley/Mining/Industry/ Thermal / Nuclear/Other (Specify)	Hospital Project (Advance Treatment, Research & Education in Cancer - funded by Government of India)
2. Name of the Project	Existing and Proposed project Radiological Research Unit and Administrative block (RRU) and Centre for cancer Epidemiology (CCE, Archive and Record Storage) at ACTREC, Proposed expansion of TATA Memorial Hospital "Hemato Lymphoid Block", proposed construction of Hadron Beam (Proton Therapy) Facility and Radiological Research Unit & Administration Block(RRU), Construction of Dormitory Building(Asha Niwas) and Construction of Bio Bank storage Building and "Shantilal Shanghvi Pediatric Hematolymphoid Cancer Centre"
3. Clearance letter (s)/OM No. And Date	<p>EC granted for -</p> <ul style="list-style-type: none"> • (Radiological Research Unit and Administrative block - RRU) and Centre for cancer Epidemiology (CCE, Archive and Record Storage) vide letter No: SEAC 2013/CR-101/TC-1, Dated: 8th April 2013 • Amendment in same on 11th December 2015 • Expansion of TATA Memorial Hospital "Hemato Lymphoid Block" vide No. SEAC 2213/CR 325/TC II Dated: 12th January 2016. • Environmental Clearance for Hadron Beam (Proton Therapy) Facility and Radiological Research Unit & Administration Block (RRU) Vide CIDCO/ACP(BP/DP/NT)/EC/2018/643; Date: 12.01.2018. • Amended Environmental Clearance for Asha Niwas vide No. CIDCO/ACP(BP/DP/NT)/EC/2018/642 Date: 12.01.2018. • Environment Clearance for the Expansion & Amendment vide No. SEIAA-EC-0000000084 Dated 4th May 2017. • Environment Clearance for Addition of one hospital "Shantilal Shanghvi Pediatric Hematolymphoid Cancer Centre" in existing ACTREC vide no. SEIAA-EC-0000002065 dated 7th November 2019
4. Location:	

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<p>a) District (s) b) State (s) c) Location d) Latitude/Longitude</p>	<p>Navi Mumbai Maharashtra Plot No. 1 & 2, sector 22 at Kharghar, Navi Mumbai. 19°04'03.76" N 73°03'49.88" E</p>																											
<p>5. Address for correspondence a) Address of the Concerned Project Chief Engineer (With Pin Code and telephone/telex/fax numbers)</p>	<p>Name: G.S. Dhanoa: Chief Engineer Address: Engineering Department, 6th floor, Service Block, Tata Memorial Hospital, Dr. E. Borges Road, Parel, Mumbai - 400 012 Tel No: +91-22-24177000 Mobile No: 9869451721 Email id: singd@tmc.gov.in</p>																											
<p>6. Salient features Of the project</p>	<p>Total Plot Area: 24, 40, 007.495 sq. m. [As per EC Dated: 8th April 2013 & Amendment in same on 11th December 2015] <table border="1" data-bbox="871 742 1323 1291"> <thead> <tr> <th>Particular</th> <th>No. of buildings</th> <th>Configuration</th> </tr> </thead> <tbody> <tr> <td>Radiological Research Unit and Administrative Block (RRU)</td> <td>01</td> <td>Existing scope B + Gr + 03 (Design for B + G + 7) = 7500 Sq. m.</td> </tr> <tr> <td>Centre for Cancer Epidemiology (CCE)</td> <td>01</td> <td>Existing scope Gr + 03 (Design for G + 7) = 6000 Sq. m.</td> </tr> <tr> <td>Archive & Record Storage</td> <td>01</td> <td>Existing scope Gr + 04 (Design for G + 4) = 4000 sq. m.</td> </tr> </tbody> </table> <p>Existing FSI area: 17, 500 sq. m. Existing: Non FSI area: 5250 sq. m. Existing Total Built Up Area: 22,750 sq. m.</p> <p>[As per EC granted for expansion on dated: 12th January 2016] Total Buildings - 2 <table border="1" data-bbox="346 742 598 1291"> <tbody> <tr> <td>Hematolymphoid Block</td> <td>1</td> <td>G + 7</td> </tr> <tr> <td>Utility Block</td> <td>1</td> <td>Ground floor</td> </tr> <tr> <td>Medical Gas Manifold</td> <td>1</td> <td>Ground floor</td> </tr> <tr> <td>Electrical Substation</td> <td>1</td> <td>Ground floor</td> </tr> <tr> <td>Entrance Structure</td> <td>1</td> <td>Ground floor</td> </tr> </tbody> </table> Proposed FSI area: 16731.26 sq. m</p> </p>	Particular	No. of buildings	Configuration	Radiological Research Unit and Administrative Block (RRU)	01	Existing scope B + Gr + 03 (Design for B + G + 7) = 7500 Sq. m.	Centre for Cancer Epidemiology (CCE)	01	Existing scope Gr + 03 (Design for G + 7) = 6000 Sq. m.	Archive & Record Storage	01	Existing scope Gr + 04 (Design for G + 4) = 4000 sq. m.	Hematolymphoid Block	1	G + 7	Utility Block	1	Ground floor	Medical Gas Manifold	1	Ground floor	Electrical Substation	1	Ground floor	Entrance Structure	1	Ground floor
Particular	No. of buildings	Configuration																										
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Salient features Of the Environmental management plans	<p>Proposed Non FSI: 2032.43 Sq. m. Proposed Total Built Up Area: 18763.69 sq. m.</p> <p>(As per EC for the Expansion & Amendment vide No. SE/IA-EC-0000000084 Dated 4th May 2017) Bio-Bank structure having built-up area 119.88 Sq.m. with Ground floor configuration in the same plot, hence exceeding the earlier proposed built up area from 18,763.69 Sq.m. to 18,883.57 Sq.M.</p> <p>Built-up area: 119.88 Sq.m. Total BUA: 18,883.57 Sq.m.</p> <p>(As per EC dated: 12th January 2018 for proposed construction of Hadron Beam (Proton Therapy) facility and RRU)</p> <table border="1" data-bbox="1113 727 1333 1311"> <thead> <tr> <th>Particular</th> <th>No. of buildings</th> <th>Configuration</th> </tr> </thead> <tbody> <tr> <td>RRU & administration Block</td> <td>01</td> <td>B+G+7 floors</td> </tr> <tr> <td>Hadron Facility</td> <td>01</td> <td>G+1 UF</td> </tr> </tbody> </table> <p>Existing FSI area: 20,682 sq. m. Existing: Non FSI area: 834.50 sq. m. Existing Total Built Up Area: 21516.50 sq. m.</p> <p>As per EC dated: 12th January 2018 for proposed construction of Dormitory Building, 'Asha Niwas'</p> <ol style="list-style-type: none"> 1. FSI Area: 13210.24 sq.m. 2. Non FSI Area: 6286.76 sq.m 3. Total BUA: 19497.00 sq.m. <p>As per EC dated: 7th November 2019 for proposed construction of "Shantlal Shanghvi Pediatric Hematolymphoid Cancer Centre"</p> <p>FSI area: 25007.10 Sqm Non FSI area : 3057.78 Sqm Total BUA: 28064.88 Sqm</p> <ul style="list-style-type: none"> • Energy efficient electrical installation for conserving electricity. • Provision of Rainwater Harvesting to conserve natural water. 	Particular	No. of buildings	Configuration	RRU & administration Block	01	B+G+7 floors	Hadron Facility	01	G+1 UF
Particular	No. of buildings	Configuration								
RRU & administration Block	01	B+G+7 floors								
Hadron Facility	01	G+1 UF								

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	<ul style="list-style-type: none"> • Tree Plantation or Landscaping for green belt development. • Provision of Energy efficient drives for HVAC system • Solid Waste Management • Sewage Treatment Plan (STP) to reuse treated effluent. 																		
<p>7. Breakup of the project area a) Submergence area forest and non-forest b) Others</p>	<p>Not Applicable Project comes under Industrial Area</p>																		
<p>8. Breakup of the project affected population with enumeration of those losing house/dwelling units only agricultural land only. Both dwelling units and agricultural land and agricultural landless laborers/artisans: SC, ST/Adivas</p>	<p>Not Applicable</p>																		
<p>9. Financial details: a) Project cost as originally planned and subsequent revised estimates and the year of price reference: b) Allocation made for environmental management plans with item wise and year wise break-up.</p>	<p>Existing Rs. 56/- Crores (a)+ Proposed 311.59 Crores (b) = Rs. 367.59 Crore (a + b)</p> <p>1. Construction Phase: (For Hematolymploid Block)</p> <table border="1" data-bbox="577 742 976 1305"> <thead> <tr> <th>Environmental Protection Measure</th> <th>Capital Cost (Rs. in lakhs)</th> <th>Recurring Cost Per annum (Rs. in lakhs)</th> </tr> </thead> <tbody> <tr> <td>Debris/topsoil Management</td> <td>35</td> <td>Nil</td> </tr> <tr> <td>Toilet for labour + Drinking water + First aid arrangement</td> <td>15</td> <td>1</td> </tr> <tr> <td>Total</td> <td>50</td> <td>1</td> </tr> </tbody> </table> <p>II. Operation Phase: (For Hematolymploid Block)</p> <table border="1" data-bbox="294 742 472 1305"> <thead> <tr> <th>Environmental Protection Measure</th> <th>Capital Cost (Rs. in Lakhs)</th> <th>Recurring Cost Per annum (Rs. in Lakhs)</th> </tr> </thead> <tbody> <tr> <td>Sewage</td> <td>--</td> <td>--</td> </tr> </tbody> </table>	Environmental Protection Measure	Capital Cost (Rs. in lakhs)	Recurring Cost Per annum (Rs. in lakhs)	Debris/topsoil Management	35	Nil	Toilet for labour + Drinking water + First aid arrangement	15	1	Total	50	1	Environmental Protection Measure	Capital Cost (Rs. in Lakhs)	Recurring Cost Per annum (Rs. in Lakhs)	Sewage	--	--
Environmental Protection Measure	Capital Cost (Rs. in lakhs)	Recurring Cost Per annum (Rs. in lakhs)																	
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Total	50	1																	
Environmental Protection Measure	Capital Cost (Rs. in Lakhs)	Recurring Cost Per annum (Rs. in Lakhs)																	
Sewage	--	--																	

Treatment Plan		
Rainwater Harvesting	--	--
MSW	--	--
Electrical Cost	108	4.89
Landscaping	76.81	52.92
Environment Monitoring	1.0	1.60
Total	185.81	59.41

Construction Phase: (For Hadron beam & RRU)

Environmental Protection Measure	Total Cost (Rs. in lakhs)
Debris/top Soil Management	20
Toilet for labour + Drinking water + First aid arrangement	20
Total	40

II. Operation Phase: (For Hadron beam & RRU)

Environmental Protection Measure	Capital Cost (Rs. in Lakhs)	Recurring Cost Per annum (Rs. in Lakhs)
Solid Waste Management	10	02
Biomedical Waste Management	0	05
Rainwater Harvesting	24.76	1.2
Green Belt	1	0.50
Energy Saving features	40	2.50
Total	75.76	11.2

III. Construction Phase: (Shanghavi Block)

Environmental Protection Measure	Total Cost (Rs. in lakhs)
Debris / Topsoil management	35
Site sanitation Toilets for labour + Drinking water + First aid arrangement	15
Total	50

IV. Operation Phase: (Shanghavi Block)

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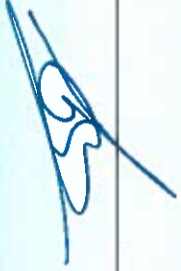
TATA MEMORIAL CENTRE
(TATA MEMORIAL HOSPITAL),
PAKEL, MUMBAI - 400 012.

Environmental Protection Measure	Capital Cost (Rs. in Lakhs)	Recurring Cost Per annum (Rs. in Lakhs/yr)
Sewage Treatment Plan	300	8
MSW	12	2.5
Rainwater Harvesting	20	1
Green Belt Development	76.81	52.92
Energy Conservation	153	6.89
Environment Monitoring	1	1.6
Total	562.81	72.91

c) Benefit cost ratio/Internal rate of return and the year of assessment:	Not Applicable.
d) Whether (c) includes the cost of environmental management as shown in the above	Not Applicable.
e) Actual expenditure incurred on the project so far	Rs. 257.05 Cr
f) Actual expenditure incurred on the environmental management plans so far	Rs. 4.30 Cr

10. Forest land requirement:	Not Applicable
a) The status of approval for diversion of forest land for non-forestry use	Not Applicable
b) The status of cleaning felling	Not Applicable
c) The status of compensatory afforestation, if any	Not Applicable
d) Comments on the viability and sustainability of compensatory afforestation programme in the light of actual field experience	Not Applicable
11. The status of clear felling in non-forest areas (such as submergence area of reservoir, approach roads),	Not Applicable

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	if any with quantitative information	
12.	Status of construction a) Date of commencement (Actual and/or planned) b) Date of completion (Actual and/or planned)	September 2013 (Actual) September 2022 (Planned)
13.	Reason for the delay of the project is yet to start	Disbursement of fund from government
14.	Dates of site visits (a) The dates on which the project was monitored by the Regional Office on previous occasions, if any (b) Date of site visit for this monitoring report	11/09/15 Please refer Post Monitoring Report.
15.	Details of correspondence with project authorities for obtaining action plans / information on status of compliance to safeguards other than the routine letters for logistic support for site visits. (The first monitoring report may contain the details of all the letters issued so far, but the later reports may cover only the letters issued subsequently.)	<p>EC granted for -</p> <ul style="list-style-type: none"> • (Radiological Research Unit and Administrative block - RRU) and Centre for cancer Epidemiology (CCE, Archive and Record Storage) vide letter No: SEAC 2013/CR-101/TC-1, Dated: 8th April 2013 • Amendment in same on 11th December 2015 • Expansion of TATA Memorial Hospital "Hemato Lymphoid Block" vide No. SEAC 2213/CR 325/TC II Dated: 12th January 2016. • Environmental Clearance for Hadron Beam (Proton Therapy) Facility and Radiological Research Unit & Administration Block (RRU) Vide CIDCO/ACP(BP/DP/NTJ)/EC/2018/643; Date: 12.01.2018 • Amended Environmental Clearance for Asha Niwas vide CIDCO/ACP(BP/DP/NTJ)/EC/2018/642 Date: 12.01.2018 • Environment Clearance for the Expansion & Amendment vide No. SEIAA-EC-0000000084 Dated 4th May 2017 • Environment Clearance for Addition of one hospital "Shantilal Shanghvi Pediatric Hematolymphoid Cancer Centre" in existing ACTREC vide no. SEIAA-EC-0000002065 dated 7th November 2019



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