



टाटा स्मारक केंद्र  
TATA MEMORIAL CENTRE

टाटा स्मारक अस्पताल  
TATA MEMORIAL HOSPITAL



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

Date-1<sup>st</sup> June 2025  
AA No. 1390855

To,  
Regional Office,  
Ministry of Environment, Forest & Climate Change  
A/3, Chandersekharpur,  
Bhubaneswar – 751023

**Sub: Six-monthly Compliance (Session: June 2025) of the stipulated Environmental conditions/safeguards in the Environmental clearance letter and Environmental Monitoring Report for "Homi Bhabha Cancer Hospital and Research Centre" located at Tehsil Jatni, Khurda, Odisha by Tata Memorial Centre.**

**Ref: Environmental Clearance File No. 456865/01-INFRA2/12-2023 Dated 06<sup>th</sup> May 2024.**

Dear Sir,

This is in reference to the State Level Environmental Impact Assessment Authority, Odisha, Bhubaneswar EC vide File No. 456865/01-INFRA2/12-2023 Dated 06<sup>th</sup> May 2024.

in which we have been asked to submit the compliance with the specific and general conditions of the same.

In view of above, we are approaching you by submitting a copy of the following information/ documents for your kind perusal:

1. Point-wise compliance of the stipulated environmental conditions/ safeguards, along with necessary documents & annexures.
2. Environmental monitoring report along with other necessary permissions/documents.

We fully assure you that we will comply with all conditions as specified in the Environment clearance granted to us. Details of Representative are as follows:

Name	Dr Lingraj R Nayak
Designation	Professor (Medical Oncology)
Contact no.	9167294976
Email ID	lingarajnayak86@gmail.com

Thanking you,  
Yours Sincerely,  
For Tata Memorial Centre

डॉ. लिंगराज नायक/DR. LINGARAJ NAYAK  
प्रोफेसर/PROFESSOR  
हमेटोलिम्फोइड विभाग (वयस्क)/HEMATOLYMPHOID DIVISION (ADULT)  
मेडिकल ऑन्कोलॉजी विभाग/DEPT. OF MEDICAL ONCOLOGY  
टीएमसी, मुंबई/ TMC, MUMBAI.

**Name: Dr Lingraj R Nayak**  
**Designation: Professor (Medical Oncology)**

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+९१-२२-६९५३ ७३००

1. The Member Secretary, State Pollution Control Board, Odisha, Paribesh Bhawan, A/118, Nilakantha Nagar, Unit-8, Bhubaneswar.
2. The Member Secretary SEIAA, Odisha, SRF-2/1, Acharya Vihar, Unit – IX, OPTCL Colony, Anand Bazar, Bhoi Nagar, Bhubaneswar, Odisha 751022

**POINTWISE COMPLIANCE OF STIPULATED  
ENVIRONMENTAL CONDITIONS/ SAFEGUARDS IN  
THE ENVIRONMENTAL CLEARANCE**

**EC Identification No. 456865/01-INFRA2/12-2023  
dated 06<sup>th</sup> May 2024.**

**OF**

**“Homi Bhabha Cancer Hospital and Research Centre”**

**At**

**Tehsil Jatni, Khurda, Odisha by Tata Memorial Centre**

**FOR**

**June 2025**

**Tata Memorial Centre**



## COMPLIANCE JUNE 2025

**POINT-WISE COMPLIANCE WITH THE STIPULATED ENVIRONMENTAL  
CONDITIONS/SAFEGUARDS MENTIONED IN ENVIRONMENTAL CLEARANCE  
LETTER NO. 456865/01-INFRA2/12-2023 DATED 6TH MAY, 2024, FOR THE HOMI  
BHABHA CANCER HOSPITAL AND RESEARCH CENTRE, LOCATED AT TEHSIL JATNI,  
DISTRICT KHORDHA, ODISHA**

Sl. No.	Conditions	Status of Compliance
<b>SPECIFIC ENVIRONMENTAL CONDITIONS AND SAFEGUARDS WHICH NEED TO BE COMPLIED WITH BY THE PROJECT PROPONENT BEFORE BREAKING OF LAND:</b>		
<b>Statutory Compliance Points</b>		
i.	The project proponent shall also obtain permission/NOC from Executive Engg. (PHD) and or from the appropriate authority for disposal of excess STP treated water to the nearest drain and also submit the same to SEIAA, Odisha before start of construction work. Also, in case of the connecting drain passing through start other land (Government or Private Land), the proponent shall obtain the permission as the case may be.	<b>Agreed to Comply</b> At present, only foundation work has commenced as part of the initial stage of the project. The STP will be installed prior to the operational phase. As per the Minutes of Meeting (MoM) executed between the Government of Odisha and Tata Memorial Centre, the Government of Odisha will provide water supply, electricity, stormwater drainage access, and road connectivity. This arrangement is recorded in the MoM held on January 9, 2024, at 3:30 PM under the Chairmanship of the Chief Secretary of Odisha. A copy of the MoM is enclosed as <b>Annexure-1</b> .
ii.	Plantation and solar facilities to be implemented as proposed at appropriate time.	<b>Agreed to Comply</b> Currently, only the foundation work has begun as part of the project's initial phase. The proposed <b>plantation and solar facilities will be</b>

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*Lingara*

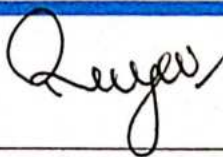
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## COMPLIANCE JUNE 2025

		implemented at the appropriate stage of development.
iii.	Parking in terms of ECS (4-wheeler, 2-Wheeler and bicycle) shall be provided compatible with expected number of patients and attending visitors, OPD patients and visitors with them, Doctor's and staffs, nursing sisters and at least 10% floating population in confirmative with building by- laws/NBC norm/applicable laws and rules for this kind of project.	<b>Agreed to comply</b> At present, only foundation work has commenced as part of the initial stage of the project. We have provision of the parking as per the by-laws.
iv.	The proponent shall operate STP and ETP separately as standalone system and both shall not be inter-connected. ETP outlet shall not be discharged to outside the project premises i.e "Zero discharge" from ETP to outside the premises shall be maintained.	<b>Agreed to comply.</b> We confirm that the STP and ETP will function as independent, standalone systems with no interconnection. The site layout indicating the locations of STP-1, STP-2, and the ETP is enclosed as <b>Annexure-2</b> .
v.	The Decongestion plan as given by proponent in the traffic density study report shall be implemented for compliance with definite time frame.	<b>Agreed to comply.</b> At present, only foundation work has commenced as part of the initial stage. Same will be followed.
vi.	The proponent shall make agreement with nearby Common Bio-Medical Waste Treatment Facility having incinerator facilities for disposal of infectious waste, organic waste and health hazardous wastes.	<b>Agreed to comply.</b> At present, only foundation work has commenced as part of the initial stage. Same will be followed.

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vii.	The proponent shall obtain permission from concerned authority for discharge of surplus treated water of STP only to nearby drain & nallah.	<p><b>Agreed to comply.</b></p> <p>As of now, foundation work has commenced as part of the initial stage of the project. The STP will be installed prior to the operational phase of the project.</p> <p>As per the Minutes of Meeting (MoM) executed between the Government of Odisha and Tata Memorial Centre, the Government of Odisha will facilitate the provision of <b>water supply, electricity, stormwater drainage access, and road connectivity.</b> This understanding was formally documented during the meeting held on <b>January 9, 2024, at 3:30 PM</b>, chaired by the Chief Secretary of Odisha.</p> <p>A copy of the MoM is enclosed as <b>Annexure-1.</b></p>
viii.	The Approval of the Competent Authority shall be obtained in regard to structural safety of building against earthquake, adequacy of fire-fighting equipment as per National Building Code including protection measures from lightning.	<p><b>Complied.</b></p> <p>We have obtained the Structural Stability certificate. Same has been enclosed as <b>Annexure-3.</b></p>
ix.	The project proponent shall obtain all necessary clearance/ permission from all concerned agencies including BMC/BDA authority before commencement of work in accordance with the local building byelaws.	<p><b>Complied.</b></p> <p>We have obtained BDA approval vide Letter no. <b>BP/BDA/013676</b>, Bhubaneswar, dated <b>06.03.2024</b> from the Bhubaneswar Development Authority. Copy of the same is enclosed as <b>Annexure-4</b></p>

*Rayan*



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x.	The proponent shall obtain permission from concerned Fire Safety Authority and implement all conditions stipulated in NOC.	<b>Agreed to comply.</b> As of now, foundation work has commenced as part of the initial stage of the project. Fire Safety plan is enclosed as <b>Annexure-5</b> .
xi.	The Construction and Demolition waste to be generated during demolition of existing structure shall be managed as per Construction and Demolition Waste management.	<b>Being Complied.</b> Foundation work is currently underway at the initial stage, and construction waste generated on site is being managed as per the Construction Waste Management plan.
xii.	The proponent shall implement the Pollution Control Measures and safeguard as proposed in the Environment management Plan (EMP) of project report.	<b>Agreed to comply.</b> We will implement the pollution control measures and safeguards as outlined in the Environmental Management Plan (EMP) of the project report. Environment measures has been enclosed as <b>Annexure-8</b>
xiii.	Rainwater harvesting shall be designed considering the maximum rainfall of a year accordingly , number of RWH shall be implemented.	<b>Agreed.</b> As of now, only foundation work has commenced at the initial stage. We have provision of adequate number of Rainwater Storage Tanks. It will be implemented before the Operational Phase of project.
xiv.	All other statutory clearance such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, the Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable to the project by the proponent from the respective	<b>Agreed.</b> Currently, only foundation work has commenced in the initial stage. No diesel is stored at the site; it will be procured from a nearby petrol pump as needed.

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*[Signature]*

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	competent authorities.	
xv.	The Project Proponent shall advertise in at least two local Newspaper widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environment Clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen on the website of SEIAA, Odisha. The advertisement shall be made within seven days from the date of receipt of the Clearance letter and copy of the same shall be forwarded to the Regional Office of MoEF&CC, Bhubaneswar.	<b>Complied.</b> Newspaper advertisement copy in English and Odia Newspaper is enclosed as <b>Annexure-6</b> .
xvi.	A copy of clearance letter shall be sent by Proponent to concerned Panchayat, Zilla Parishad/ 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 displayed at the Regional Officer, District Industries centre and Collector's Office/tahsildar's office for 30 days.	<b>Agreed and Noted.</b>

**SPECIFIC ENVIRONMENTAL CONDITIONS AND SAFEGUARDS WHICH NEED TO BE COMPLIED WITH BY THE PROJECT PROPONENT DURING CONSTRUCTION PHASE:**

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### Water Requirement:

i.	<p>The project proponent shall adopt &amp; implement net 'Zero liquid discharge' principle and shall maximize recycle and reuse of treated waste water generated in the project. All waste generated shall be treated in the STP and the treated waste water shall be recycled and reused within the project so as to minimize external ground water. Also ground water recharge by surplus waste water in the project plot area shall be maximized. For discharge of any quantity of treated waste water to outside the project area premises, the exact location of drain, etc. to which such discharge will be made and permission of competent authority allowing such discharge have to be reported . The layout of pipe lines, etc to take the wastewater to the approved discharge point has to be elaborately depicted on map and submitted. The EC is liable to revoked if such report is not submitted by PP.</p>	<p><b>Agreed and Noted.</b></p> <p>The project is anticipated to generate approximately 343 KLD of wastewater. Of this, about 78 KLD will be treated in an on-site Effluent Treatment Plant (ETP) with a capacity of 95 KL. The remaining 265 KLD will be processed through an on-site Sewage Treatment Plant (STP) with a total capacity of 350 KL, which includes a 250 KL unit serving the Hospital and Pediatric Wing and a 100 KL unit designated for the Dharamshala and Guest House. Treated water from the STP will be reused for flushing and horticultural purposes, with any excess directed to the external sewer line.</p>
ii.	<p>No ground water shall be extracted for the project work at any stage during the construction phase without obtaining the permission from the Water Resources Department, Govt. of Odisha.</p>	<p><b>Agreed to comply.</b></p> <p>The foundation work is currently underway in its initial phase. Groundwater NOC has been obtained under reference number <b>CGWA/NOC/INF/ORIG/2024/19943</b>, dated <b>23.02.2024</b>, and is valid for the construction</p>

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		<p>phase from 23.02.2024 to 22.02.2029. A copy of the CGWA NOC is attached as <b>Annexure-7</b>.</p> <p>As per the Minutes of Meeting (MoM) executed between the Government of Odisha and Tata Memorial Centre, the Government of Odisha will provide essential infrastructure support including water supply, electricity, stormwater drainage access, and road connectivity. This arrangement is recorded in the MoM dated January 9, 2024, at 3:30 PM, chaired by the Chief Secretary of Odisha. The MoM is enclosed as <b>Annexure-1</b>.</p>
iii.	<p>A certificate shall be obtained from local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on the users.</p>	<p><b>Agreed to comply.</b></p> <p>As per the Minutes of Meeting (MoM) signed between the Government of Odisha and Tata Memorial Centre, the Government of Odisha has committed to providing water supply, electricity, stormwater drainage access, and road connectivity. This agreement was formally recorded during the meeting held on January 9, 2024, at 3:30 PM, chaired by the Chief Secretary of Odisha. A copy of the MoM is attached as <b>Annexure-1</b>.</p>
iv.	<p>When the Public water supply will be available adjacent to/in vicinity of the proposed project in future, The PP shall avail it following due procedure of the Govt. if the concerned project in future, The PP</p>	<p><b>Agreed to comply.</b></p> <p>According to the MoM executed between the Government of Odisha and Tata Memorial Centre, the Government of Odisha will provide water supply, electricity, access to</p>

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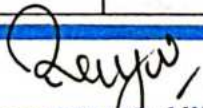
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	shall avail it following due procedure of Govt if the concerned authority agrees and dispense with the drawl of ground water except one borewell for emergency purpose, The PP shall take up suitably for purpose with the concerned authority of Government.	stormwater drainage, and road connectivity. This arrangement has been documented in the Minutes of the Meeting held on January 9, 2024, at 3:30 PM under the Chairmanship of the Chief Secretary of Odisha. Copy of the MoM is enclosed as <b>Annexure-1</b> .
v.	Water demand during the construction should be reduced by use of pre-mixed concrete, curing agents and other best practices.	<b>Being complied.</b> Currently, foundation work has commenced in the initial stage. Same is being followed.

**Disposal of Solid Waste:**

i.	The solid waste shall be duly segregated into biodegradable and non-biodegradable components and handled in separate areas earmarked for segregation of solid waste, as per Solid Waste Management Rules, 2016. The biodegradable waste generated shall be utilized through the Organic Waste Converter to be installed at the project site. Solid waste disposal shall be by micro composting of all bio degradable waste inside the premises. The inert waste (bio-non degradable components like plastics) shall be disposed off as per norms only at authorized site. The mode of disposal of all such waste at any approved site shall be reported, even if it is handed over to any authorized vendor. Construction &	<b>Agreed to comply.</b> Currently, foundation work has commenced in the initial stage. Same will be followed.
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	Demolition (C&D) waste from the project (debris) shall be segregated and managed as per C&D Waste Management Rules, 2016 and the detailed mode of disposal to the final disposal point shall also be reported. The PP shall formulate a concrete implementation plan and submit a report showing on the layout plan of the final disposal point of biodegradable waste, non-biodegradable waste and debris generated during construction. The EC is likely to be revoked if such report is not submitted by PP.	
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### Air Quality Management and Noise Management:

i.	Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3-meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murram, loose soil, cement, stored on site	<p><b>Being complied.</b></p> <p>Currently, foundation work has commenced in the initial stage. The construction site is being adequately barricaded. Measures to prevent dust, smoke, and other forms of air pollution are being implemented for both the building and the site. These include installing screens around the building under construction and erecting continuous dust/wind-breaking walls, at least 3 meters high, around the site. Vehicles transporting sand, cement, murram, and other dust-generating construction materials, as well as those removing debris, are being covered with plastic or tarpaulin sheets. On-site</p>
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## COMPLIANCE JUNE 2025

	shall be covered adequately so as to prevent dust pollution. Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.	storage of sand, murram, loose soil, and cement is being properly covered to prevent dust pollution. Wet jets are being used for grinding and stone cutting, and unpaved surfaces and loose soil are being regularly sprinkled with water to suppress dust. EMP measures is enclosed as <b>Annexure-8</b> . And photographs of site included the site boundary is enclosed as <b>Annexure-9</b> .
ii.	All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.	<b>Being complied.</b> Currently, only foundation has commenced in the initial stage. We are storing all construction and demolition debris within the site and ensuring it is not being dumped on roads or open spaces outside prior to proper disposal. All demolition and construction waste is being managed in accordance with the provisions of the Construction and Demolition Waste Rules, 2016. Additionally, all workers at the construction site who are involved in loading, unloading, transporting construction materials or debris, or working in areas with dust pollution are being provided with dust masks.
iii.	Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding mandatory implementation of dust mitigation measures for construction and demolition activities for projects requiring	<b>Being followed.</b> In compliance with Notification GSR 94(E) dated 25.01.2018 issued by MoEF&CC, the following dust mitigation measures are being diligently followed at our construction site:

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environmental clearance shall be complied with.

### Site Barricading

We have installed 3-meter-high tin/metal sheet barricades around the entire construction site to prevent dust dispersion and ensure safety.

### Water Sprinkling

Regular water sprinkling is being carried out on unpaved areas, access roads, and construction zones to suppress dust emissions.

#### 1. Covered Storage of Materials

Construction materials such as sand, aggregates, and cement are stored in covered sheds or are tarpaulin-covered to prevent dust from being released into the air.

#### 2. Dust Control During Cutting/Grinding

All cutting, grinding, and drilling activities are conducted using wet methods or are enclosed to minimize dust generation.

#### 3. Transportation of Materials

All vehicles transporting construction and demolition materials are fully covered and cleaned regularly to avoid spillage and dust emission during transit.

#### 4. Waste Management

Construction and demolition waste is promptly collected, segregated, and stored at

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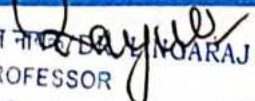
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		<p>designated locations and transported in covered vehicles to authorized disposal/recycling facilities.</p> <p><b>5. Site Cleanliness and Housekeeping</b></p> <p>Regular cleaning and sweeping of the construction site is conducted using wet methods to maintain dust-free surroundings.</p> <p><b>6. Use of Dust Suppressants</b></p> <p>Where required, environmentally safe dust suppressants are used on open surfaces and areas with high dust potential.</p> <p><b>7. Monitoring and Compliance</b></p> <p>Site supervisors regularly monitor the effectiveness of dust control measures and ensure strict adherence through inspection and corrective actions, if necessary.</p>
iv.	<p>Ambient noise levels shall conform to residential standard both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000 for the project. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.</p>	<p><b>Complied.</b></p> <p>Environmental monitoring was conducted in March 2025, and the laboratory analysis data is provided in <b>Annexure-10</b>.</p>

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### Natural Drainage:

i.	The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape and other Sustainable Urban Drainage Systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.	<b>Agreed to comply.</b> Currently, only foundation work has commenced in the initial stage. Same will be followed.
ii.	The permission from competent authority will be obtained to discharge the excess storm water to drain if any. The proponent shall renovate the existing drain to accommodate the discharge and maintain it perennially.	<b>Agreed to comply.</b> According to the MoM executed between the Government of Odisha and Tata Memorial Centre, the Government of Odisha will provide water supply, electricity, access to stormwater drainage, and road connectivity. This arrangement has been documented in the Minutes of the Meeting held on January 9, 2024, at 3:30 PM under the Chairmanship of the Chief Secretary of Odisha. Copy of the MoM is enclosed as <b>Annexure-1</b> .

### Provision for construction labour:

i.	Provisions 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	<b>Complied.</b> Currently, only the foundation work has commenced as part of the initial phase. Housing for construction labourers has been
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## COMPLIANCE JUNE 2025

	STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	arranged within the site premises, equipped with essential infrastructure and facilities including cooking fuel, mobile toilets, mobile STP, safe drinking water, medical care, and a crèche. Most of the labourers are sourced from the local area, and we have ensured the provision of drinking water and toilet facilities for them. Photograph of project site is enclosed as <b>Annexure-9</b> .
ii.	A First Aid Room shall be provided in the project both during construction and operations of the project	<b>Complied.</b> Currently, only foundation work has commenced in the initial stage. Same is being followed.

### Top Soil Preservation and Reuse:

i.	Topsoil should be stripped to depth of 20 cm from the areas proposed for building, road, paved, areas, and external services. It should be stockpiled appropriately in designed areas and reapplied during planation of the proposed vegetation site.	<b>Agreed to comply.</b> Same has been/will be followed.
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### SPECIFIC ENVIRONMENTAL CONDITIONS AND SAFEGUARDS WHICH NEED TO BE COMPLIED WITH BY THE PROJECT PROPONENT DURING OPERATION PHASE:

#### Water Requirement and Rain Water Harvesting:

i.	For meeting the total fresh water requirement for the project upto maximum 308KLD (Total water requirement-679 KLD (approx.) i.e. first time before recycle) from ground water source, necessary prior permission has to be obtained from the	<b>Agreed to comply.</b> At present, only foundation work has begun in the initial stage. Permission will be sought for the fresh water requirement prior to the operational phase to ensure adequate supply.
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	Water Resources Department, Govt. of Odisha/ CGWB, failing which no ground water is allowed to be tapped. The PP shall install tamper proof digital flow meter at all water drawal and intake points for the project.	
ii.	The PP shall install one piezometer for ground water level monitoring and water level data shall be made available to CGWA through web portal as a part of six monthly compliance report. The PP shall comply with all conditions laid down in the NOC of CGWB.	<b>Agreed to comply.</b> We will follow the same.
iii.	The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Integrated Regional Office, MoEF&CC and SEIAA, Odisha along with six monthly Monitoring reports.	<b>Agreed to comply:</b> We will measure and record the quantity of fresh water usage, water recycling, and rainwater harvesting during the operational phase to monitor the water balance as projected. The records will be submitted to the Integrated Regional Office, MoEF&CC, and SEIAA, Odisha, along with the six-monthly monitoring reports.
iv.	The PP shall comply with all conditions as specified by CGWB/ Water Resources Department, Govt. of Odisha for the project for abstraction of ground water.	<b>Agreed to comply.</b> Same will be followed.
v.	Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc. and other for supply of	<b>Agreed to comply.</b> We have provision of the dual plumbing plan during the operational phase.

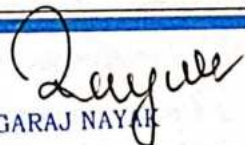


## COMPLIANCE JUNE 2025

	recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.	
vi.	Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc.) for water conservation shall be incorporated in the building plan.	<b>Agreed to comply.</b> Same will be followed.
vii.	Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation re lines for flushing by giving dual plumbing system be done.	<b>Agreed to comply.</b> We have provision of the dual plumbing plan during the operational phase.
viii.	Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering. The proponent shall also obtain permission from Water Resources Department, Govt. of Odisha for drawl of water.	<b>Agreed to comply.</b> At present, only foundation work has begun in the initial stage. Permission will be sought for the fresh water requirement prior to the operational phase to ensure adequate supply.
ix.	The proponent shall keep one bore well as standby domestic water source once municipal water supply is made available in the project area.	<b>Agreed to comply.</b> We will follow the same.
x.	A complete plan for rainwater harvesting at the proposed site shall be drawn up and implemented. The complete rainwater	<b>Agreed to comply.</b> Same will be followed.

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	harvesting plan shall be submitted to SEIAA within one month from this day. As proposed, 03 nos. of rainwater harvesting structures/tanks/pits for artificial ground water recharge shall be installed as per CGWB guidelines	
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### Solid Waste Management

i.	The provisions of the Solid Waste (Management) Rules, 2016, E-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.	<b>Agreed to comply.</b> Currently, only foundation work has commenced in the initial stage. We have provisions of the Solid Waste (Management) Rules, 2016, E-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 will be followed.
ii.	All bio-medical waste generated from the project will be disposed through an approved agency as per Biomedical Waste Management Rules, 2016 and amendments thereafter.	<b>Agreed to comply.</b> Same will be followed.
iii.	Disposal of muck during construction phase shall 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.	<b>Complied.</b> Currently, only the foundation work is being carried out in the initial stage. We are ensuring that the disposal of muck during the construction phase is not causing any adverse impact on the neighbouring communities. The muck is being disposed of with all necessary precautions related to general safety and public health, and only at approved sites with the consent of the



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		competent authority.
iv.	Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into bio-degradable and inert materials. Bio-degradable waste shall be composted in Organic Waste Converter. Adequate area shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from the project will be sent to dumping site.	<p><b>Agreed to comply.</b></p> <p>Currently, only foundation work has commenced in the initial stage. We will provide separate wet and dry bins in each unit and at ground level to facilitate waste segregation. Solid waste will be segregated into biodegradable and inert materials. Biodegradable waste will be composted in an Organic Waste Converter. Adequate space will be allocated within the premises for solid waste management, including areas for segregation and composting. Inert waste from the project will be sent to a designated dumping site. Waste management plan is enclosed as <b>Annexure-11</b>.</p>
v.	Any hazardous waste/or radioactive waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.	<p><b>Agreed to comply.</b></p> <p>Same will be followed.</p>
vi.	A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the Municipal Solid Waste generated from project shall be obtained.	<p><b>Agreed to comply.</b></p> <p>Currently, only foundation work has commenced in the initial stage. Same will be followed.</p>
<b>Sewage Treatment Plant</b>		

**TATA MEMORIAL CENTRE**

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i.	<p>STP of 350 KL combined capacity (i.e. 1 x 250 KL for Hospital &amp; Pediatric Wing and 1 x 100 KL for Dharamshala and Guest House) shall be installed before start of the operation phase of the building. Treatment of 100% grey water by decentralized treatment should be done. The treated waste water from STP shall be recycled / reused to the maximum extent possible. Flushing, washing, watering of the lawns and gardening, filter backwash, cleaning of the floors, etc. facilities are to be met by recycled water. Discharge of unused treated waste water shall conform to the norms and standards of the Odisha State Pollution Control Board. Necessary measures should be taken to mitigate the odour problem from STP. The sewage treatment plant shall be made functional before the completion of Building Complex. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.</p>	<p><b>Agreed to comply.</b></p> <p>We will install an STP with a combined capacity of 350 KL (comprising 1 x 250 KL for the Hospital &amp; Pediatric Wing and 1 x 100 KL for the Dharamshala and Guest House) before the start of the operational phase of the building. Decentralized treatment of 100% grey water will be implemented. Treated wastewater from the STP will be recycled and reused to the maximum extent possible for purposes such as flushing, washing, lawn watering, gardening, filter backwash, and floor cleaning. Any unused treated wastewater will comply with the norms and standards set by the Odisha State Pollution Control Board.</p> <p>We will take necessary measures to mitigate any odour issues from the STP. The sewage treatment plant will be made functional before the completion of the building complex, and periodic monitoring of the treated sewage's water quality will be conducted to ensure compliance.</p>
ii.	<p>ETP of 95KLD shall be installed to treat clinical/hospital waste water generated from the project.</p>	<p><b>Agreed to comply.</b></p> <p>ETP of 95KLD will be installed to treat clinical/hospital waste water generated from the project.</p>

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iii.	Excess treated water shall be discharged to the drain only after getting permission from the concerned authority. The proponent shall renovate the existing drain to accommodate the discharge and maintain it perennially.	<b>Agreed to comply.</b> We will discharge excess treated water to the drain only after obtaining permission from the concerned authority. Additionally, we will renovate the existing drain to accommodate the discharge and ensure its perennial maintenance.
iv.	A certificate from the competent authority shall be obtained for discharging treated effluent/ untreated effluents into the Public sewer/disposal/drainage systems along with the final disposal point.	<b>Agreed to comply</b> A certificate from the competent authority will be obtained for discharging treated effluent/ untreated effluents into the Public sewer/disposal/drainage systems along with the final disposal point.
v.	The wastewater generated shall not be allowed to mix with storm water. The Project Proponent shall ensure separate approved line for discharge of treated waste water and that of storm water. No sewage or untreated effluent water would be discharged through storm water drains.	<b>Agreed to comply.</b> We have the provision for the same.
vi.	Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.	<b>Agreed to comply.</b> Same will be followed.

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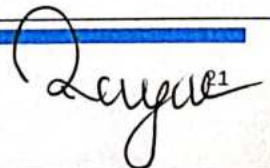
vii.	The proponent shall obtain permission from the concerned authority to discharge the liquid waste to any drain i.e. the competent authority of the drain and "Nala" before commencement of any activity at the project site.	<p><b>Agreed to comply.</b></p> <p>According to the MoM executed between the Government of Odisha and Tata Memorial Centre, the Government of Odisha will provide water supply, electricity, access to stormwater drainage, and road connectivity. This arrangement has been documented in the Minutes of the Meeting held on January 9, 2024, at 3:30 PM under the Chairmanship of the Chief Secretary of Odisha.</p> <p>Copy of the MoM is enclosed as <b>Annexure-1</b>.</p>
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### Energy Conservation:

i.	Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC. Outdoor and common area lighting shall be LED. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.	<p><b>Agreed to comply.</b></p> <p>We have provision as per the ECBC. Energy Conservation measures is enclosed as <b>Annexure- 13</b></p>
ii.	Energy conservation measures like installation of CFLs/LED for the lighting the	<p><b>Agreed to comply.</b></p> <p>We have provision as per the ECBC. Energy</p>

TATA MEMORIAL CENTRE

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	area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.	Conservation measures is enclosed as <b>Annexure-13.</b>
iii.	The proponent shall use renewable energy/ solar power of at least 5% of projected power requirement for the building premises as proposed.	<b>Agreed to comply.</b> We have provision of the same.
iv.	Solar energy shall be installed to meet electricity generation equivalent to 5% of the demand load/or as proposed or as per the state level/ local building bye-laws requirement, whichever is higher & feasible. The project proponent shall follow the ECBC/ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power strictly.	<b>Agreed to comply.</b> We have provision of the same.
v.	Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher.	<b>Agreed to comply.</b> Same will be followed.

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vi.	Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, compressed earth blocks, and other environment friendly materials. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction	<b>Agreed to comply.</b> We have provision for the same.
vii.	A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project shall be submitted.	<b>Complied.</b> Electricity Assurance has been received from the office of Special Secretary (PH) to government (Government of Odisha- Health and Family Department) Vide letter no. <b>HFW-MEII-ESTT-0013-2022-21750/H&amp;F.W</b> dated <b>28.09.2022</b> . Copy of the same is enclosed as <b>Annexure-13</b> .

### Air Quality Management and Noise Management:

i.	The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and	<b>Agreed to comply.</b> We have proposed the stack height of DG set as per the CPCB standards. Stack height calculation is enclosed as <b>Annexure-14</b> .
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## COMPLIANCE JUNE 2025

	exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.	
<b>Greenbelt Development</b>		
i.	Green-belt, lawn area & avenue plantation of trees over the area of 34,530.51Sqmt.(20.53% of plot area) shall be done using native tree species/shrubs improving greenery & keeping in view aesthetics considerations in the whole complex. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Professional landscape architects should be engaged to design the green layout to provide for multi-tier plantation and green fencing all around, mitigating various environmental pollutants like dust, noise, emissions etc. A minimum of 1 tree for every 80 Sqmt of land should be planted and maintained.	<p><b>Agreed to comply.</b></p> <p>We will develop a green belt, lawn area, and avenue plantation of trees over an area of 34,530.51 sq. meters (20.53% of the plot area) using native tree species and shrubs to enhance greenery and maintain aesthetic appeal throughout the complex. Tree species with heavy foliage, broad leaves, and wide canopy cover will be prioritized. Professional landscape architects will be engaged to design the green layout, ensuring multi-tier plantation and green fencing around the premises to mitigate environmental pollutants such as dust, noise, and emissions. We will plant and maintain a minimum of one tree for every 80 sq. meters of land. Landscape detail is enclosed as <b>Annexure-15</b>.</p>
ii.	Rainwater from open spaces shall be collected and reused for landscaping and other purposes. Roof top rain water harvesting shall be adopted for the proposed Buildings. Rainwater harvesting at the proposed site shall be implemented. Before recharging the surface runoff, pre-treatment must be done to remove	<p><b>Agreed to comply.</b></p> <p>We will collect rainwater from open spaces and reuse it for landscaping and other purposes. Rooftop rainwater harvesting systems will be implemented for the proposed buildings. Rainwater harvesting will be carried out at the site, and before recharging the surface runoff, pre-treatment</p>

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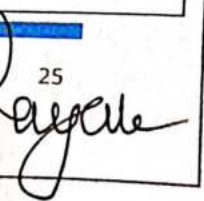
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## COMPLIANCE JUNE 2025

	suspended matter, oil and grease.	will be conducted to remove suspended matter, oil, and grease.
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### Parking, Traffic & Transportation:

i.	<p>A comprehensive mobility plan, as per Ministry of Urban Development best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.</p> <ul style="list-style-type: none"> <li>➤ Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.</li> <li>➤ Traffic calming measures</li> <li>➤ Proper design of entry and exit points.</li> </ul> <p>Parking norms as per local regulation</p>	<p><b>Agreed to comply.</b></p> <p>Same will be followed.</p>
ii.	<p>A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 01 km radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to</p>	<p><b>Agreed to comply.</b></p> <p>Currently, only foundation work has commenced in the initial stage. Same will be followed.</p>





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	be carried out by the project or other agencies in this 01 km radius of the site and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.	
iii.	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 be operated only during non-peak hours.	<b>Agreed to comply.</b> Currently, only foundation work has commenced in the initial stage. Same will be followed.
iv.	A dedicated entry/exit and parking shall be provided for commercial activities.	<b>Agreed to comply.</b> Currently, only foundation work has commenced in the initial stage. We have provision for the same.
v.	Barricades shall be provided around project boundary.	<b>Being complied</b> Barricades is being provided around the project site boundary.
vi.	Speed of the vehicles shall be restricted upto 15 kmph by erecting speed bumps at regular intervals at project site and proper signage shall be provided for guided vehicular movement and speed restrictions.	<b>Agreed to comply.</b> We will restrict the speed of vehicles to a maximum of 15 kmph at the project site by installing speed bumps at regular intervals. Proper signage will be provided to ensure guided vehicular movement and enforce

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		speed restrictions.
vii.	Parking shall be prohibited on the access road to the proposed to the site.	Agreed to comply. Same will be followed.
viii.	Parking in terms of ECS & space, both for 4 wheelers / 2 wheelers for the project shall be provided as per the norms considering the residents and visitors in the project.	Agreed to comply. Same will be followed.
ix.	Footpath shall be seamless with sufficient width.	Agreed to comply. We will follow the same.
x.	No vehicles shall be allowed to stop and stand in front of the gate on main access.	Agreed to comply. No vehicles will be allowed to stop and stand in front of the gate on main access.
xi.	A buffer of minimum 10 m shall be maintained between the entry/exit gate and the road to avoid traffic congestion	Agreed to comply. Same will be followed.

### Environment Management Plan:

i.	The company shall have a well laid down environmental policy duly approve by the Board of Directors/project authority. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental forest/wildlife norms/conditions. The company shall have defined system of reporting infringements / deviation/violation of the environmental/forest/wildlife	Agreed to comply. Same will be followed.
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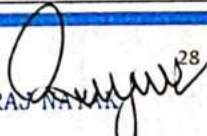
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	norms/conditions and/or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the Integrated Regional Office. MoEF&CC, Govt. of India, Bhubaneswar as well as SEIAA, Odisha as a part of six-monthly report.	
ii.	An Environmental Management Plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified above. A dedicated Environment Monitoring Cell with defined functions and responsibility shall be put in place to implement the EMP. The environmental cell shall ensure that the environment infrastructure like sewage treatment plant, landscaping, rain water harvesting, energy efficiency and conservation, water efficiency and conservation, solid waste management, renewable energy, etc. are kept operational and meet the required standards. The environmental cell shall also keep the record of environment monitoring and those related to the environment infrastructure.	<b>Agreed to comply.</b> We have provision of Environment Management Cell. EMC is enclosed as <b>Annexure-16.</b>
iii.	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall	<b>Agreed to comply.</b> Same will be followed. We have provision of Environment Management Cell. EMC is

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 टीएमसी, मुंबई/ TMC, MUMBAI.

## COMPLIANCE JUNE 2025

be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Integrated Regional Office, MoEF&CC, Govt. of India, Bhubaneswar as well as SEIAA, Odisha along with the Six Monthly Compliance Report.

enclosed as **Annexure-16**.

### Half-yearly Compliance Report:

i.

It shall be mandatory for the project management to submit six (06) monthly compliance reports on post environmental monitoring in respect of the stipulated terms and conditions in this Environmental Clearance to the State Environment Impact Assessment Authority (SEIAA), Odisha, SPCB & Integrated Regional Office of the Ministry of Environment & Forest, Odisha, the respective Zonal Office of CPCB and the SPCB in soft copies on 1 June and 1 December of each calendar year. No hard copy of six (06) monthly compliance reports shall be accepted by SEIAA. The proponent shall upload the compliance report including results of monitored data, as applicable in the PARIVESH website of the

**Agreed and Noted.**

Monitoring has been done during the March month. Lab data is enclosed as **Annexure-10**.

TATA MEMORIAL CENTRE

डॉ. लिंगराज नायक/DR. LINGARAJ NAYAK

प्राध्यापक/PROFESSOR

हेमाटोलिम्फोइड विभाग (वयस्क)/HEMATOLYMPHOID DIVISION (ADULT)

मेडिकल ऑन्कोलॉजी विभाग/DEPT. OF MEDICAL ONCOLOGY

टीएमसी, मुंबई/ TMC, MUMBAI.



## COMPLIANCE JUNE 2025

	Ministry for monitoring of EC Conditions. The criteria pollutant levels namely; SPM, RSPM, SO <sub>2</sub> , NO <sub>x</sub> (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.	
ii.	Officials from the Integrated Regional Office of MoEF&CC, Bhubaneswar/SPCB, Odisha 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.	Agreed and Noted.
iii.	The environmental statement for each financial year ending 31 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 Integrated Regional Offices of MoEF&CC, Govt. of India by E-mail.	Agreed and Noted.

**MISCELLANEOUS ENVIRONMENTAL CONDITIONS WHICH NEED TO BE COMPLIED WITH BY THE PROJECT PROPONENT:**

**TATA MEMORIAL CENTRE**

डॉ. लिंगराज नायक/DR. LINGARAJ NAYAK 30  
 प्राध्यापक/PROFESSOR  
 हेमाटोलिम्फोईड विभाग (वयस्क)/HEMATOLYMPHOID DIVISION (ADULT)  
 मेडिकल ऑन्कोलॉजी विभाग/DEPT. OF MEDICAL ONCOLOGY  
 टीएमसी, मुंबई/ TMC, MUMBAI.



## COMPLIANCE JUNE 2025

### Other Conditions:

i.	The project proponent shall inform the Integrated Regional Office, MoEF&CC, Govt. of India, Bhubaneswar as well as SEIAA, Odisha the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of operation by the project.	Agreed and Noted.
ii.	No further expansion/revision or modifications in the project shall be carried out without prior approval of SEIAA, Odisha. In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by the SEIAA, Odisha.	Agreed and Noted.
iii.	The SEIAA, Odisha 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. The company in a time bound manner shall implement these conditions.	Agreed and Noted.





## List of Annexures

Annexure-1	Minutes of Meeting
Annexure-2	Site Plan
Annexure-3	Structural Stability
Annexure-4	BDA Approval
Annexure-5	Fire Layout
Annexure-6	Newspaper Advertisement
Annexure-7	CGWA Approval
Annexure-8	EMP Measures
Annexure-9	Photographs
Annexure-10	Lab Data
Annexure-11	Wate Treatment
Annexure-12	Energy Conservation
Annexure-13	Electricity Permission
Annexure-14	Stack Calculation
Annexure-15	Landscape Detail
Annexure-16	EMC



**MINUTES OF THE MEETING HELD ON 09.01.2024 AT 3.30 PM UNDER THE CHAIRMANSHIP OF CHIEF SECRETARY, ODISHA FOR EXPEDITING THE WORKS OF DIFFERENT DEPARTMENTS IN CONNECTION WITH ESTABLISHMENT OF HOMI BHABHA CANCER HOSPITAL & RESEARCH CENTRE AT JATNI, KHORDHA.**

\*\*\*

A meeting was held on 09.01.2024 at 3.30 P.M. under the Chairmanship of Chief Secretary, Odisha in his Conference Hall to discuss on the issues of different Departments of Government in expediting the works in connection with establishment of Homi Bhabha Cancer Hospital & Research Centre (HBCH & RC) at Jatni, Khordha.

The list of participants who attended the meeting is attached as Annexure- A. The officials of TMC, Mumbai attended the meeting on virtual mode.

Initiating the discussion, the Chairman welcomed all the participants and requested the TMC officials for making a presentation on the progress of works so far made for establishment of Homi Bhabha Cancer Hospital & Research Centre (HBCH & RC), Jatni, Khordha.

In response, Prof. Lingaraj Naik, Medical Oncology, TMH made a detail power point presentation on the matters of provision of funds, allotment of different kinds of land required, technical assistance from the Government Authorities and the requirement of some statutory approvals for timely completion of the project which is targeted to be commissioned by February 2026.

The Commissioner-cum-Secretary to Government, Health & FW Department made another presentation covering different items of work relating to different Departments in connection with the establishment of the Hospital. Officials representing the concerned Departments intimated the house about the actions taken by so far.

After detailed discussion on the works undertaken and the future actions to be taken up in a time bound manner the following decisions were taken:

Sl. No	Item	Action points	Time line	Action lies with whom
1.	Allotment of land and Shifting of Crematorium	<p>1. An extent of 48.842 acres of Govt. land as well as 4.94 acres of smashan land has already been sanctioned in favour of National Institute of Science Education and Research (NISER), Bhubaneswar by R &amp; DM Department with exemption of all charges</p> <p>2. The NISER authority will take steps to get it recorded in their favour by observing due</p>	End of February, 2024 for obtaining approval from BDA.	R & DM Deptt & Collector, Khordha;  NISER/ Health & FW Deptt.



		<p>formalities.</p> <p>3. Action will be taken by NISER authority to obtain the BDA approval for commencement of the construction works.</p> <p>4. The Collector, Khordha has identified an alternate land for crematorium and the work for construction of new crematorium has already been started. Existing crematorium land will be handed over to NISER after completion of construction of new crematorium at the new land identified for the purpose.</p> <p>5. Health &amp; FW Deptt. will make budgetary provisions of Rs 2.50 (approx.) crore for direct purchase of Ac. 0.725 of private land coming within the project area of TMC in village Padanpur on receipt of requisition.</p>	May 2024 for handing over of the crematorium land to NISER.	
2.	Power Supply	<p>1. The Chief Secretary requested the Deputy Director, TMC, Mumbai to make a realistic assessment of required load of power for the proposed cancer hospital as well as its ancillary buildings for its smooth functioning and to file requisition before the Energy Department of State Government for taking necessary steps regarding supply of power.</p> <p>2. Necessary administrative as well as statutory clearance are to be obtained by the NISER/ TMC authority.</p> <p>3. For supply of required megawatt of power from</p>	End of January, 2024 for filing requisition.	Energy Deptt / NISER, Bhubaneswar/ TMC, Mumbai



		the nearest grid i.e. Arugul, the Energy Department of the State Government is to ensure that there should not be any shortage or compromise on quality of power supply to the hospital.		
3.	Water supply & storm water drainage	<ol style="list-style-type: none"> <li>1. TMC will intimate total requirement of water, after which the Government in H &amp; UD Department will take steps for arranging signing of contract between the agency operating the water supply system and the TMC for providing the required quantity of water at the notified tariff.</li> <li>2. The H &amp; UD Department was advised to make the campus zero discharge with appropriate rainwater harvesting structures &amp; in situ waste water treatment systems.</li> </ol>	As per the progress of hospital construction activity.	H & UD Deptt. /TMC, Mumbai
4.	Transport facility	<ol style="list-style-type: none"> <li>1. Mo Bus - direct bus service will be provided along with construction of top class bus stops on both sides on the way to Hospital. Collector, Khordha to provide suitable land for construction of bus stops.</li> </ol>	As per the progress of hospital construction activity	MD, CRUT. / Collector, Khordha
5.	Road connectivity	<ol style="list-style-type: none"> <li>1. The Principal Secretary to Govt., Works Department apprised that in order to cater to the heavy flow of traffic, the existing road is to be widened on either side for which some Govt land need to be alienated and Private land to be acquired .</li> <li>2. The Chairman advised</li> </ol>	End of February, 2024	Works Department/  Revenue & D.M. Deptt.,  Health & FW Dept. / Collector, Khordha

		<p>that the Works Department, Govt. of Odisha will make the land assessment in consultation with the Collector, Khordha and will take steps for acquisition and transfer/handing over of required land (Govt &amp; private) in favour of Works Department so that work can be executed without any hindrance.</p> <p>3. The requisition for required fund for the purpose of direct purchase of road side private land is to be filed before Collector, Khordha by Works Department and the H&amp;FW Department will accordingly make budgetary provisions in consultation with Finance Department.</p>		
6.	Dedicated Fire sub-station	<p>1. The requirement of a dedicated Fire Sub-station was earlier projected. During the course of discussion, the DG, Fire Services intimated that Jatni Fire Station is 4.6 Kms from the complex. So, it is better to upgrade the existing Fire Station.</p> <p>2. The land available in the Jatni Fire Station is not adequate to carry out up-gradation. The DG, Fire Services, stated that the Collector, Khordha has already identified one acre of land adjacent to NISER campus with the approval of BDA. This land will be used to locate additional staff and equipment by way of upgradation of Jatni Fire Station.</p> <p>3. The DG, Fire &amp; Emergency Services will</p>	Up gradation work is to be done as per the progress of hospital construction activity	DG, Fire Services/ Works Deptt. / Collector, Khordha / TMC, Mumbai



		<p>accordingly submit requisition to the Collector, Khordha for allotment of above stated land to the Fire Department.</p> <p>4. TMC is to send their Architects for consultation with the officers of the Fire Department so that necessary Fire Safety measures will be introduced in the design stage, for facilitating issue of Fire Safety Certificate. The Architects will have discussion with officials of Works, Fire and BDA for greater synergy and better coordination.</p> <p>5. Fire Department to make an assessment of the requirements and do the needful.</p>		
7.	Construction of AAHAR Kendra	<p>1. It was decided that the proposed AAHAR Kendra inside the Hospital premises is intended for providing affordable meal to the patients &amp; attendants. Hence, physical space in the Hospital campus will be provided by the TMC. Health &amp; FW Deptt. will make budgetary provision for construction of the AAHAR Kendra through Works Department. After the structure is ready H &amp; UD Deptt. will operationalize the AAHAR Kendra.</p>	As per the progress of hospital construction activity	<p>Works Deptt. /</p> <p>H &amp; UD Deptt. /</p> <p>Health &amp; FW Deptt./ TMC, Mumbai</p>
8.	Setting up of Dharmashala	<p>1. Health &amp; F.W. Deptt. has accorded in-principle approval for construction of a Dharmashala-cum-Guest House at an estimated cost of Rs 120 Crore and to be handed over to TMC Mumbai.</p>	As per the progress of hospital construction activity	<p>Health &amp; FW Deptt. /</p> <p>Works Deptt./ TMC, Mumbai</p>

		<p>2. This Construction work is to be undertaken by Works Department in consultation with TMC having at least 200 beds for occupants.</p> <p>3. It has been decided in the meeting that this building will be multi-storied and the basement will be used for multi-level Car / bike parking. The building design is to be prepared accordingly for having provision of adequate parking space so that there will not be any criss-crossing of the vehicles inside the hospital campus.</p>		
9.	Signing MoU of	1. Health & F.W. Department has already signed the MoU with the Tata Memorial Centre, Mumbai for establishment of Homi Bhabha Cancer Hospital in the Campus of NISER, Bhubaneswar on 07.09.2022.	NA	NA
10	Cancer Registry	1. The Population Based Cancer Registry (PBCR) has already been started in Khordha district since October 2022 and expanded to Mayurbhanj district since October 2023.	NA	TMC, Mumbai
11	Establishment of Cyclotron	<p>1. Director, BARC had requested for financial assistance amounting to Rs 300 crores for establishment of a Medical Cyclotron unit in NISER Campus.</p> <p>2. Government of Odisha has agreed for funding of 50 % of the project cost or Rs 150 crore, whichever is less, out of which Health &amp; F.W. Department has made Budgetary provision of</p>	As per the progress of hospital construction activity	Director, BARC / TMC, Mumbai / Health & F.W. Deptt.



		<p>Rs 75 crore in Budget Estimate 2023-24.</p> <p>3. Department of Atomic Energy, GoI to expedite filing of requisition for transfer of funds with Bank details.</p> <p>4. The Chairman advised the TMC authorities to file the requisition within a week for transfer of funds amounting to Rs. 75 crore lest it may lapse and surrendered to F.D.</p>		
12.	Any other matters	<p>1. Govt. of Odisha have agreed in-principle to support for funding of Rs 150 crore for construction of a state of the art Paediatric Cancer facility at the cancer hospital. The TMC officials were requested to intimate the requirement of fund (phase wise) so as to make Budgetary provision by Health &amp; FW Dept. for the FY 2024-25.</p> <p>2. Adequate precautions are to be taken on fire safety measures during construction of building, be it at the Hospital, the Dharmashala, Aahar Kendra, the Cyclotron unit etc.</p>	Submission of requisition of funds by end of January 2024	TMC, Mumbai / H & FW Deptt. / D.G. Fire Services, BBSR

Respective State Govt. Departments and the TMC Authorities are to take proactive measures for execution of their work in a time bound manner so that functionalization of the Hospital will be made in time.

The meeting ended with vote of thanks to the Chair and all Participants.


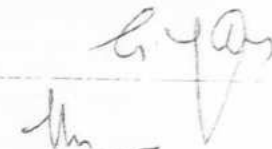





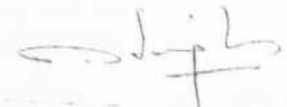


  
 Chief Secretary,  
 Odisha

**MEETING REGARDING ASSISTANCE TO TMC, MUMBAI IN EXPEDITING  
THE ESTABLISHMENT OF HOMI BHABA CANCER HOSPITAL & RESEARCH  
CENTRE AT-JATNI, KHORDHA**

Date :- 09<sup>th</sup> January, 2024  
03.30 P.M

Venue: Conference Hall of Chief Secretary  
Loka Seva Bhavan

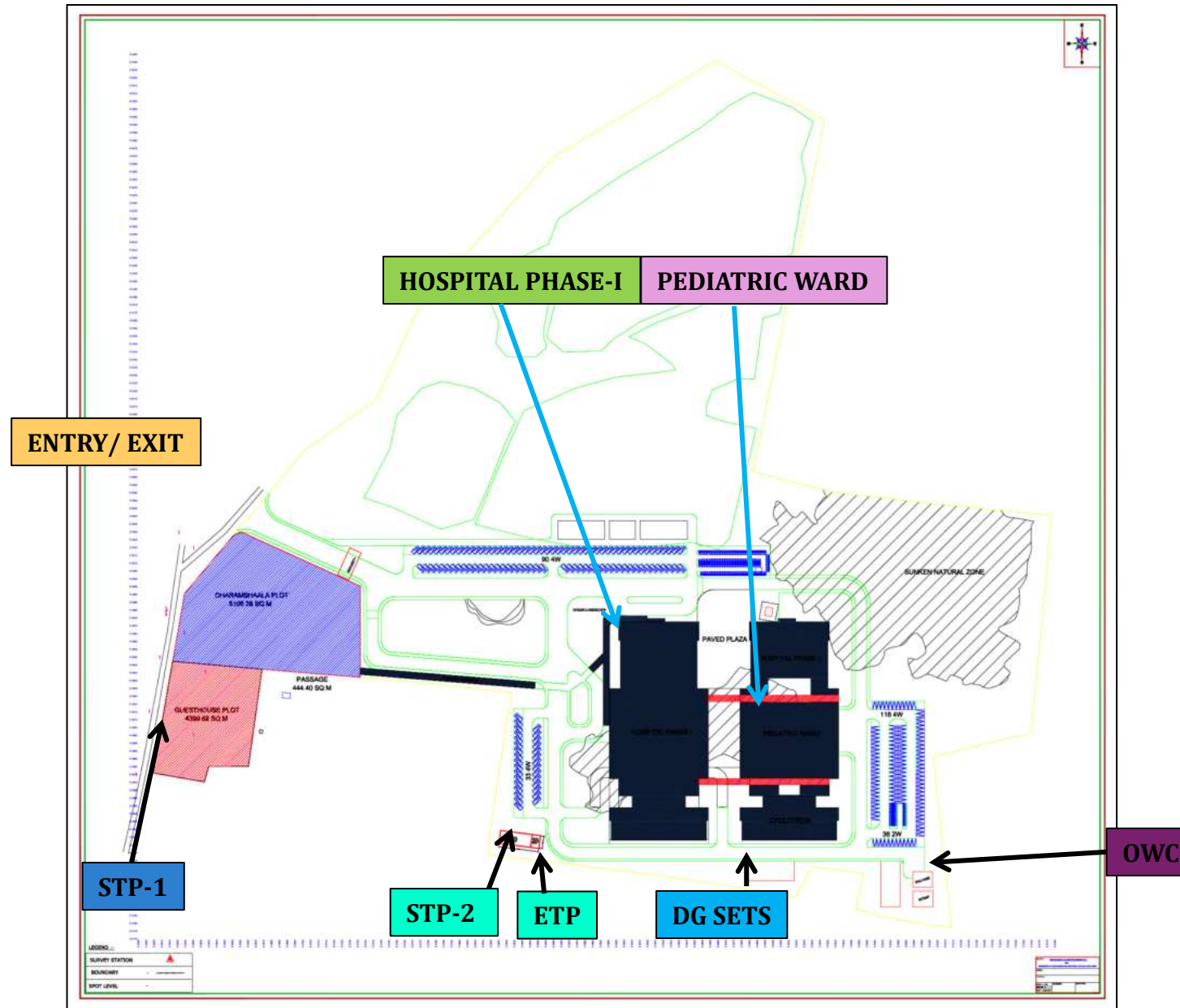
**Attendance Sheet of Participants**

Sl. No.	Name & Designation	Mobile No.	Signature
1.	Chief Secretary, Odisha		
2.	Additional Chief Secretary to Government Revenue & DM Department		
3.	Additional Chief Secretary to Government H & UD Department		
4.	Director General, Fire Services, Odisha	9437214582	
5.	Principal Secretary to Government Works Department	-	
6.	Principal Secretary to Government Energy Department	9437055000	
7.	Managing Director, CRUT, Bhubaneswar General manager (CRUT)	9437166372	
8.	Collector & DM, Khordha	9439033562	
9.	Director, TMC	Attended in virtual mode	
10.	Special Secretary (ME-II) to Government, Health & FW Department		
11.	Asst. Secy. S. 101611 CEO - TPLCDDL	9223307613	
12.	Secy, HFW Deptl. S. PAANDIT		
13.	Prof. A. SRINIVASAN, NISER	9668324153	



# SITE PLAN

ANNEXURE-2



## FORM - VII

## CERTIFICATE FOR STRUCTURAL STABILITY

With respect to the building work of erection, re-erection or for making alteration in the building on Plot No. 749, 747/2400, 752/2400 <sup>doctors</sup> Village/ Mouza PADANPUR

\_\_\_\_\_ of BHUPANESWAR Municipal Corporation/ Municipality/ NAC within the Development plan Area of \_\_\_\_\_

I certify that the Structural plans and details of the building submitted for approval satisfy the structural safety requirements for all situations including natural disasters like cyclone & earth quake etc. as applicable, as stipulated under Part-6 (Structural Design) of the National building Code of Indian, 2005 and other relevant codes; and the information given therein is actually correct to the best of my knowledge. I undertake responsibility with regard to supervision of the work at each stage of construction, (after laying of foundation & after casting of each floor) and submit the report to B.D.A regularly to effect that the building is going constructed conforming to the approved plan and as per the structural plan prepared by me, I will be responsible and liable for action by B.D.A./ Govt. if the plan/ design contain representation or fraudulent information and the construction is made in deviation of approved plan or if there is any structural failure due to wrong/ unsafe structural design, use of low quality material and/ or poor workmanship endangering the in-mates & public.

Signature of owner

With date

Name:

Address:

डॉ. लिंगराज नायक/DR. LINGARAJ NAYAK

प्राध्यापक/PROFESSOR

हेमाटोलिम्फोइड विभाग (वयस्क)/HEMATOLYMPHOID DIVISION (ADULT)

मेडिकल ऑन्कोलॉजी विभाग/DEPT. OF MEDICAL ONCOLOGY

टीएमसी, मुंबई/ TMC, MUMBAI.

Signature of the Registered

Engineer/ Structural Engineer

With date and registration No.

Dr Lingaraj Nayak

Room No. 1005  
10th floor / HBB Building.  
Dr Ernest Borges Road  
Parul - 400012  
Mumbai

BIBHU RANJAN GIRI  
**STRUCTURAL ENGINEER**  
- RTP/DTP (ST.ER) 149/2019

5552

Bibhu Ranjan Giri





## Bhubaneswar Development Authority

Form-II (Order for Grant of Permission)

**Letter No. BP/BDA/013676, Bhubaneswardevelopmentauthority, Dated: 30/10/2024**

**Sujog-OBPS APPLICATION NO. BP-BDA-2024-02-03-050240**

Permission Under Sub-Section (3) of the Section-16 of the Orissa Development Authorities Act'1982(Orissa Act,1982) is hereby granted in favour of Land Owner

Plot Number	Plot Area	Khata No	Kisam	Village	Land Owner Name	GPA Holder Name
749,747/240 0,752/2404,9 22/2401,923/ 2402,927/23 99,747/2403, 927(P),929( P),747(P),73 6(P),746(P), 735(P)	41.562	722(AJA), 722	PATITA	Padanpur	TATA MEMORIAL CENTRE	NA

For New Construction of **[B+G+5, G, G, G, G, G, G] Public-semi, Govt-Semi Govt. Hospital** over in Mouza- Padanpur in the Development Plan area of **Bhubaneswardevelopmentauthority** with the following parameters and conditions;

Parameters:

- Total plot area: 40.155 Acre ( 162476.94 SQM )
- Net plot area: 162476.94 SQM
- Abutting road width: 12.14 Mtr

Block-No.2 (B+G+5)	Covered area approved (Sqm.)	Proposed use	No. of Dwelling Units
Basement level First	1426.45	Govt-Semi Govt. Hospital	0
Ground floor	7563.21	Govt-Semi Govt. Hospital	0

Signature valid

Digitally Signed  
Name: Gouri Sankar Bhuyan  
Date: 30-Oct-2024 16:21:23  
Location: Odisha

First Floor	5246.42	Govt-Semi Govt. Hospital	0
Second Floor	5230.07	Govt-Semi Govt. Hospital	0
Third Floor	4057.09	Govt-Semi Govt. Hospital	0
Fourth Floor	3479.45	Govt-Semi Govt. Hospital	0
Fifth Floor	2920.95	Govt-Semi Govt. Hospital	0
Total BUA Area	29923.64		0
<b>Block-No.3 (G)</b>	<b>Covered area approved (Sqm.)</b>	<b>Proposed use</b>	<b>No. of Dwelling Units</b>
Ground floor	506.03	Govt-Semi Govt. Hospital	0
Total BUA Area	506.03		0
<b>Block-No.4 (G)</b>	<b>Covered area approved (Sqm.)</b>	<b>Proposed use</b>	<b>No. of Dwelling Units</b>
Ground floor	358.40	Govt-Semi Govt. Hospital	0
Total BUA Area	358.40		0
<b>Block-No.5 (G)</b>	<b>Covered area approved (Sqm.)</b>	<b>Proposed use</b>	<b>No. of Dwelling Units</b>
Ground floor	1150.00	Govt-Semi Govt. Hospital	0
Total BUA Area	1150.00		0
<b>Block-No.6 (G)</b>	<b>Covered area approved (Sqm.)</b>	<b>Proposed use</b>	<b>No. of Dwelling Units</b>
Ground floor	594.60	Govt-Semi Govt. Hospital	0
Total BUA Area	594.60		0
<b>Block-No.7 (G)</b>	<b>Covered area approved (Sqm.)</b>	<b>Proposed use</b>	<b>No. of Dwelling Units</b>
Ground floor	152.00	Govt-Semi Govt. Hospital	0
Total BUA Area	152.00		0
<b>Block-No.8 (G)</b>	<b>Covered area approved (Sqm.)</b>	<b>Proposed use</b>	<b>No. of Dwelling Units</b>
Ground floor	16.47	Govt-Semi Govt. Hospital	0
Total BUA Area	16.47		0
<b>Total no. of Dwelling Units: 0</b>			
<b>Bye Laws Provisions</b>	<b>Revised</b>	<b>Proposed</b>	

Signature valid  
 Date: 30-Oct-2023 06:21:23  
 Location: Odisha



No.of staircases	B2-6, B3-1, B4-1, B5-0, B6-0, B7-0, B8-0	B2-6, B3-1, B4-1, B5-0, B6-0, B7-0, B8-0
No.of Lifts	NA	NA
E-vehicle charging station	0	0
Visitor parking(in Sqm.)	0	0.00
Plantation(no of tree per 80Sqm.)	NA	2038
<b>Grand Total FAR Area - 30232.36 Sqm.</b>		
<b>Grand Total BUA - 32723.25 Sqm.</b>		
F.A.R	4.0 (Max. Permissible) 2.0 (Base FAR )	ACHIEVED- 0.19(0 Purchasable FAR)
Height (mtr.)	B2-28.2, B3-4.2, B4-4.2, B5-4.2, B6-3.5, B7-5.64, B8-3.2	
Parking	Basement-0.00+ Stilt- 0 + Ground (Open Parking )-9843.53 Total =9843.53 Sqm.	

**- Set backs approved to be provided**

Block No.	Item	Provided (in Mtr)
2	Front Set back	62.52
	Rear Set back	150.88
	Left side	102.51
	Right side	18.81
3	Front Set back	246.61
	Rear Set back	6.14
	Left side	6.91
	Right side	151.44
4	Front Set back	230.72
	Rear Set back	6.07
	Left side	28.85
	Right side	10.63
5	Front Set back	382.91
	Rear Set back	76.92
	Left side	45.26
	Right side	84.75
6	Front Set back	182.76
	Rear Set back	232.91
	Left side	270.46
	Right side	215.23
7	Front Set back	69.79
	Rear Set back	390.5
	Left side	408.13
	Right side	63.39
8	Front Set back	46.97

Signature Valid  
Name: Sourav Kumar Choudhary  
Date: 30-Oct-2024 06:21:23  
Location: Odisha

	<b>Rear Set back</b>	<b>273.46</b>
	<b>Left side</b>	<b>414.59</b>
	<b>Right side</b>	<b>80.68</b>

• In case there is any discrepancy found with numbers/figures provided in CAD drawing and Plan PDF, then the numbers/figures provided in the CAD drawing will prevail and will be considered valid.

1. The building shall be used exclusively for **Govt-Semi Govt. Hospital** purpose and the use shall not be changed to any other use without prior approval of this Authority.
2. The development shall be undertaken strictly according to plans enclosed with necessary permission endorsement.
3. Total Parking space measuring **9843.53 Sqm.** as shown in the approved plan shall be left for parking of vehicles and no part of it will be used for any other purpose.
4. The land over which construction is proposed is accessible by an approved means of access of **12.14 Mtr.** in width.
5. The land in question must be in lawful ownership and peaceful possession of the applicant.
6. The applicant shall free gift **0 Sqm.** wide strip of land to Bhubaneswar Development Authority for further widening of the road to the standard width as per **CDP-2010, BDA.**
7. The permission granted under these regulations shall remain valid upto **three years** from the date of issue. However the permission shall have to be revalidated before the expiry of the above period on payment of such fee as may be prescribed under rules and such revalidation shall be valid for one year.
8.
  - (A) Approval of plans and acceptance of any statement or document pertaining to such plan shall not exempt the owner or person or persons under whose supervision the building is constructed from their responsibilities imposed under ODA (Planning & Building Standards) Rules 2020, or under any other law for the time being in force.
  - (B) Approval of plan would mean granting of permission to construct under these regulations in force only and shall not mean among other things-
    1. The title over the land or building
    2. Easement rights
    3. Variation in area from recorded area of a plot or a building

Signature valid  
 Name: Gour Sanku Shuyan  
 Date: 30-Oct-2023 16:21:23  
 Location: Odisha



4. Structural stability
5. Workmanship and soundness of materials used in the construction of the buildings
6. Quality of building services and amenities in the construction of the building,
7. The site/area liable to flooding as a result of not taking proper drainage arrangement as per the natural lay of the land, etc and
8. Other requirements or licenses or clearances required to be obtained for the site /premises or activity under various other laws.
9. In case of any dispute arising out of land record or in respect of right, title, interest after this permission is granted, the permission so granted shall be treated as automatically cancelled during the period of dispute.
10. Neither granting of the permit nor the approval of the drawing and specifications, nor inspections made by the Authority during erection of the building shall in any way relieve the owner of such building from full responsibility for carrying out the work in accordance with the requirements of NBC 2005 and these regulations.
11. **The owner /applicant shall:**
  - A. Permit the Authority to enter the building or premises, for which the permission has been granted at any reasonable time for the purpose of enforcing the regulations;
  - B. Obtain, wherever applicable, from the competent Authority permissions/clearance required in connection with the proposed work;
  - C. Give written notice to the Authority before commencement of work on building site in Form-V, periodic progress report in Form-VIII, notice of completion in Form-VI and notice in case of termination of services of Technical persons engaged by him.
  - D. Obtain an Occupancy Certificate from the Authority prior to occupation of building in full or part.
12. **The applicant shall abide by the provisions of Rule no.15 of ODA (P&BS) Rules, 2020 with regard to third party verification at plinth level, ground level & roof level. Any deviation to the above shall attract penalty as per the provision of the same.**
13.
  - A. In case the full plot or part thereof on which permission is accorded is agricultural kisam, the same may be converted to non-agricultural kisam under section- 8 of OLR Act before commencement of construction.
  - B. The owner/applicant shall get the structural plan and design vetted by the institutions identified by the Authority for buildings more than 30 mtr height before commencement of

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Name: Gauri Shankar Shuyan  
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Location: Odisha

construction.

14. Wherever tests of any material are made to ensure conformity of the requirements of the regulations in force, records of the test data shall be kept available for inspection during the construction of building and for such period thereafter as required by the Authority.
15. The persons to whom a permit is issued during construction shall keep pasted in a conspicuous place on the property in respect of which the permit was issued;
- A. A copy of the building permit; and
- B. A copy of approved drawings and specifications.
16. If the Authority finds at any stage that the construction is not being carried on according to the sanctioned plan or is in violations of any of the provisions of these regulations, it shall notify the owner and no further construction shall be allowed until necessary corrections in the plan are made and the corrected plan is approved. **The applicant during the course of construction and till issue of occupancy certificate shall place a display board on his site with details and declaration.**
17. **This permission is accorded on deposit /submission of the following:**

Details of Fees and Charges	Amount in Rupees	Payment Status
A. (i) Fee for building operation	149619.0	Paid
A. (ii) Development Fees	812385.0	Paid
B. Sanction fees	981698.0	Paid
<b>TOTAL FEES PAID</b>	<b>1957700.00</b>	

18. **Other conditions to be complied by the applicant are as per the following;**

- I. Adhere to provisions of ODA (Planning & Building Standards) Rules, 2020 strictly.
- II. Storm water from the premises or rooftop shall be conveyed and discharged to the rainwater recharging pits as per Rules-47 of ODA (Planning & Building Standards) Rules, 2020.
- III. No stormwater/water shall be discharged to the public road/public premises and other adjoining plots.
- IV. Rooftop Solar Energy Installation shall be provided as per ODA (Planning & Building Standards) Rules, 2020
- V. The space which is meant for parking shall not be changed to any other use and shall not be partitioned/closed in any manner.
- VI. Not more than 1/3rd of the mandatory parking shall be reserved for staff or own use and the balance parking shall be earmarked for visitors and shall be open to all visitors as per the sub-

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Location: Odisha



rule (12) of Rule No. 37 of ODA (P & BS) Rules, 2020.

VII.Total Parking space measuring 9843.53 Sqm. (Open Parking) as shown in the approved plan shall be left for parking of vehicles and no part of it will be used for any other purpose.

VIII.Barrier-free access for physically challenged, differently-abled persons, elderly and children shall be provided as per Rule 46 of ODA (P&BS) Rules, 2020.

IX.At least 50% of the open space shall be pervious and plantation @ one tree per 80 Sq.mtr. of the plot area shall be made by the applicant as per provision under Rule 30 of ODA (P&BS) Rules, 2020.

X.Rainwater harvesting structures shall be provided within the premises for collection and use of rooftop rainwater.

XI.Groundwater recharging pits shall be provided @ 6 cubic meters for every 100 square meters of roof area.

XII.Public Washroom Complex with outdoor signage shall be provided as per Rule 50 of ODA (P&BS) Rules, 2020 and the same shall have direct access from outside the plot i.e. direct access from the public road, so as to permit usage by the general public.

XIII.ICT landing point as per Rule 57 of ODA (P&BS) Rules, 2020 shall be provided.

XIV.STP and other utilities, if provided within the minimum setback area shall not be allowed above ground level and shall only be constructed below ground level; and the same shall be appropriately covered for movement of vehicle/people above it.

XV.Guard room, electric cabin, sub-station, area for generator set, ATM, etc, if provided shall not be allowed within minimum setback area

XVI.The construction of the building (s) shall be in strict adherence of the structural plan and design vetted by the Department of Civil Engineering, Indian Institute of Technology, Guwahati vide their letter no. IITG/CE/HS/KT/Jatni/Hospital/01 dated 7th September 2024.

XVII.The Owner / Applicant / Architect / Structural Engineer are fully and jointly responsible for any structural failure of the building due to any structural/construction defects, Authority will no way be held responsible for the same in whatsoever manner.

XVIII.The Authority shall in no way be held responsible for any structural failure and damage due to earthquake/cyclone/ any other natural disaster.

XIX.The applicant shall ensure execution of the External Infrastructure Development Plan through different agencies as per the MoU signed with the State Government of Odisha.

Occupancy Certificate shall be issued only after obtaining the NOC from the Engineer Member, BDA regarding the development of External Infrastructure in accordance with the SOP in this regard.

XX.The owner/applicant/Technical Person shall strictly adhere to the terms and conditions imposed in the NOC / Clearances given by the Chief Fire Officer, Fire Prevention Wing vide their letter no. RECOMM1204130062024002091 dated 17.05.2024 / State Environment Impact Assessment Authority (SEIAA) vide their letter no. 10165/IND/IICTE/7260 dated 05/07/2024 etc., wherever applicable.

XXI.The electrical installation within the building and building premises shall be undertaken as per the Electrical Layout Plan prepared by an Electrical Engineer registered with DTP, Odisha and the Occupancy Certificate shall not be issued without submission of a certificate from the registered electrical engineer that the electrical installation within the building and building premises are in complete adherence to the specification, standards and code of practice recommended in the National Building Code of India.

XXII.All the stipulated conditions of NOC given by any public agency required for approval shall be adhered to strictly.

XXIII.The applicant is required to ensure the development of external/ internal infrastructure

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Name: Gour Shankar Shuyan  
Date: 2024.07.08 11:05:00  
Location: Odisha



facilities such as power supply, water supply & stormwater drainage etc. in close coordination with various line departments considering the decision of the Minutes of the Meeting held on 09.01.2024 under the chairmanship of Chief Secretary, Odisha and the MoU signed between TATA Memorial Centre (TMC) and Govt. of Odisha.

XXIV.The applicant shall ensure the lifting of SWM from the campus and the treatment & disposal of bio-medical waste through third-party agency as per the terms & conditions of the State Pollution Control Board, Odisha.

XXV.The applicant shall submit Fire Safety Certificate before issue of the Occupancy Certificate.

XXVI.The applicant during the course of construction and till the issue of the occupancy certificate shall keep pasted in a conspicuous place a copy of the building permit and copy of the approved drawing and shall place a display board on site with details and declaration as given at Annexure-I.

### **NOCs/ Clearances submitted:**

#### **Fire, NMA and AAI**

<b>Name</b>	<b>Status</b>
NOC from Airport Authority of India	NA
NOC from Fire Department	Received
NOC from National Monument Authority	NA

#### **Other NOCs**

The Permit letter is being granted provisionally on the condition that the following list of No Objection Certificates (NOCs) are to be submitted mandatorily before the commencement of any construction work and that the applicant will commit to fulfilling all the prerequisites for the construction project.

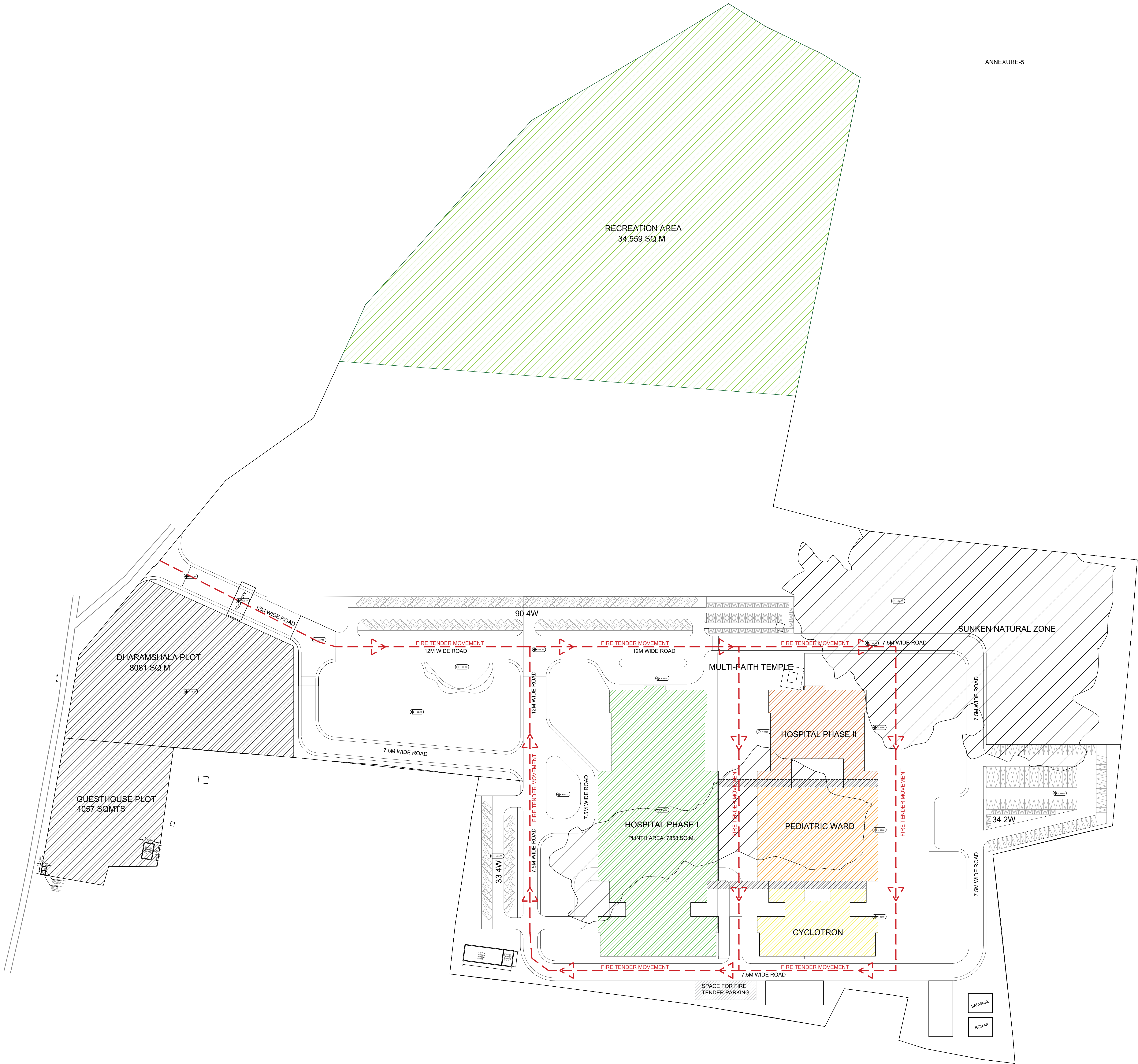
#### **1. NA(Not Applicable)**

Date: 30/10/2024

BY ORDER OF Gouri Sankar Bhuyan  
Authorized Officer  
Bhubaneswar Development Authority

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Name: Gouri Sankar Bhuyan  
Date: 30-Oct-2024 16:21:23  
Location: Odisha





SPECIAL NOTES

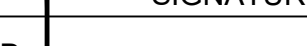
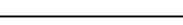
REV No.	DATE	REVISION DESCRIPTION	DESIGN		BACKWARD REFERENCE DRAWING		FORWARD REFERENCE DRAWING		HOLD LIST	
			Drawn	CHECKED	DRAWING NUMBER	DESCRIPTION	DRAWING NUMBER	DESCRIPTION	NOS	DESCRIPTION
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NOTES

- ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS SPECIFIED OTHERWISE.
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CLIENT		PRINCIPAL CONSULTANTS		SIGNATURE	PROJECT TITLE:
TATA STEEL FOUNDATION		RATAN J BATLIBOI - CONSULTANTS PVT LTD 2303 BHABHA ROAD, MILES 05.5, RAO ROAD, LAKHARG, MUMBAI-400 012 TEL: 91-22-4084003 FAX: 91-22-4084009 EMAIL: rjb@rjb.co			HOMI BHABHA CANCER HOSPITAL AND RESEARCH CENTRE, JATNI, ODISHA
CONSTRUCTION MANAGEMENT		SUB - CONSULTANT			ZONE - MASTER PLAN
JUSCO					DRG TITLE : SITE PLAN
					DRG NUMBER : JB23-071-MP1-1100-R00
					SHEET SIZE - A0
					REVISION:
					SCALE: 1:750
					

ARCHITECTURAL

APPROVAL

STATUS

Date – 10.01.2025 (Friday)  
Notice Language - Odia

Newspaper – Prameya (Odia Publication)  
Page – 05



Newspaper – Samaya (Odia Publication)  
Page – 09





Date – 10.01.2025 (Friday)  
Notice Language - English





भारत सरकार  
जल शक्ति मंत्रालय  
जल संसाधन, नदी विकास  
और गंगा संरक्षण विभाग  
केन्द्रीय भूमि जल प्राधिकरण  
Government of India  
Ministry of Jal Shakti  
Department of Water Resources,  
River Development & Ganga Rejuvenation  
Central Ground Water Authority

(भूजल निकासी हेतु अनापत्ति प्रमाण पत्र)

## **NO OBJECTION CERTIFICATE (NOC) FOR GROUND WATER ABSTRACTION**

Project Name:	Tata Steel Utilities And Infrastructure Services Limited		
Project Address:	Jatni, Padanpur		
Village:	Padanpur	Block:	Jatni
District:	Khordha	State:	Odisha
Pin Code:			
Communication Address:	Tata Steel Housing Complex, Plot-02, Kalinganagar, Under Building-d, Tata Uisl Office, Jajpur, Jajapur, Odisha - 755026		
Address of CGWB Regional Office :	Central Ground Water Board South Eastern Region, Bhujal Bhawan, Khandagiri Square, Nh-5, Bhubaneshwar, Khordha, Odisha - 751030		

1.	NOC No.:	CGWA/NOC/INF/ORIG/2024/19943					2.	Date of Issuance		23/02/2024					
3.	Application No.:	21-4/5467/OR/INF/2023					4.	Category: (GWRE 2023)		Safe					
5.	Project Status:	New Project					6.	NOC Type:		New					
7.	Valid from:	23/02/2024					8.	Valid up to:		22/02/2029					
9.	Ground Water Abstraction Permitted:														
Fresh Water			Saline Water				Dewatering			Total					
m³/day		m³/year		m³/day		m³/year		m³/day		m³/year		m³/day		m³/year	
60.00		21900.00													
10.	Details of ground water abstraction /Dewatering structures														
Total Existing No.:0								Total Proposed No.:3							
		DW	DCB	BW	TW	MP	MPu	DW	DCB	BW	TW	MP	MPu		
Abstraction Structure*		0	0	0	0	0	0	0	0	3	0	0	0		
*DW- Dug Well; DCB-Dug-cum-Bore Well; BW-Bore Well; TW-Tube Well; MP-Mine Pit;MPu-Mine Pumps															
11.	Ground Water Abstraction/Restoration Charges paid (Rs.):							21900.00							
12.	Environment Compensation (if applicable) paid (Rs.):							0.00							
13.	Number of Piezometers(Observation wells) to be constructed/ monitored & Monitoring mechanism.					No. of Piezometers		Monitoring Mechanism							
Manual								DWLR**		DWLR With Telemetry					
**DWLR - Digital Water Level Recorder					1		0		1		0				

**(Compliance Conditions given overleaf)**

This is an auto generated document & need not to be signed.

18/11, जामनगर हाउस, मानसिंह रोड, नई दिल्ली - 110011 / 18/11, Jamnagar House, Mansingh Road, New Delhi-110011

Phone: (011) 23383561 Fax: 23382051, 23386743

Website: cgwa-noc.gov.in

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**Validity of this NOC shall be subject to compliance of the following conditions:**

**Mandatory conditions:**

- 1) Installation of tamper proof digital water flow meter with telemetry on all the abstraction structure(s) shall be mandatory for all users seeking No Objection Certificate and intimation regarding their installation shall be communicated to the CGWA within 30 days of grant of No Objection Certificate.
- 2) Proponents shall mandatorily get water flow meter calibrated from an authorized agency once in a year.
- 3) Construction of purpose-built observation wells (piezometers) for ground water level monitoring shall be mandatory as per Section 14 of Guidelines. Water level data shall be made available to CGWA through web portal. Detailed guidelines for construction of piezometers are given in Annexure-II of the guidelines.
- 4) Proponents shall monitor quality of ground water from the abstraction structure(s) once in a year. Water samples from bore wells/ tube wells / dug wells shall be collected during April/May every year and analysed in NABL accredited laboratories for basic parameters (cations and anions), heavy metals, pesticides/ organic compounds etc. Water quality data shall be made available to CGWA through the web portal.
- 5) In case of mining projects, additional key wells shall be established in consultation with the Regional Director, CGWB for ground water level monitoring four (4) times a year (January, May, August and November) in core as well as buffer zones of the mine.
- 6) In case of mining project the firm shall submit water quality report of mine discharge/ seepage from Govt. approved/ NABL accredited lab.
- 7) The firm shall report compliance of the NOC conditions online in the website ([www.cgwa-noc.gov.in](http://www.cgwa-noc.gov.in)) within one year from the date of issue of this NOC.
- 8) Industries abstracting ground water in excess of 100 m<sup>3</sup>/d shall undertake annual water audit through certified auditors and submit audit reports within three months of completion of the same to CGWA. All such industries shall be required to reduce their ground water use by at least 20% over the next three years through appropriate means.
- 9) Application for renewal can be submitted online from 90 days before the expiry of NOC. Ground water withdrawal, if any, after expiry of NOC shall be illegal & liable for legal action as per provisions of Environment (Protection) Act, 1986.
- 10) This NOC is subject to prevailing Central/State Government rules/laws/norms or Court orders related to construction of tube well/ground water abstraction structure / recharge or conservation structure/discharge of effluents or any such matter as applicable.

**General conditions:**

- 11) No additional ground water abstraction and/or de-watering structures shall be constructed for this purpose without prior approval of the Central Ground Water Authority (CGWA).
- 12) The proponent shall seek prior permission from CGWA for any increase in quantum of groundwater abstraction (more than that permitted in NOC for specific period).
- 13) Proponents shall install roof top rain water harvesting in the premise as per the existing building bye laws in the premise.
- 14) The project proponent shall take all necessary measures to prevent contamination of ground water in the premises failing which the firm shall be responsible for any consequences arising thereupon.
- 15) In case of industries that are likely to contaminate the ground water, no recharge measures shall be taken up by the firm inside the plant premises. The runoff generated from the rooftop shall be stored and put to beneficial use by the firm.
- 16) Wherever feasible, requirement of water for greenbelt (horticulture) shall be met from recycled / treated waste water.
- 17) Wherever the NOC is for abstraction of saline water and the existing wells (s) is /are yielding fresh water, the same shall be sealed and new tubewell(s) tapping saline water zone shall be constructed within 3 months of the issuance of NOC. The firm shall also ensure safe disposal of saline residue, if any.
- 18) Unexpected variations in inflow of ground water into the mine pit, if any, shall be reported to the concerned Regional Director, Central Ground Water Board.
- 19) In case of violation of any NOC conditions, the applicant shall be liable to pay the penalties as per Section 16 of Guidelines.
- 20) This NOC does not absolve the proponents of their obligation / requirement to obtain other statutory and administrative clearances from appropriate authorities.
- 21) The issue of this NOC does not imply that other statutory / administrative clearances shall be granted to the project by the concerned authorities. Such authorities would consider the project on merits and take decisions independently of the NOC.
- 22) In case of change of ownership, new owner of the industry will have to apply for incorporation of necessary changes in the No Objection Certificate with documentary proof within 60 days of taking over possession of the premises.
- 23) This NOC is being issued without any prejudice to the directions of the Hon'ble NGT/court orders in cases related to ground water or any other related matters.
- 24) Proponents, who have installed/constructed artificial recharge structures in compliance of the NOC granted to them previously and have availed rebate of upto 50% (fifty percent) in the ground water abstraction charges/ground water restoration charges, shall continue to regularly maintain artificial recharge structures.
- 25) Industries which are likely to cause ground water pollution e.g. Tanning, Slaughter Houses, Dye, Chemical/ Petrochemical, Coal washeries, pharmaceutical, other hazardous units etc. (as per CPCB list) need to undertake necessary well head protection measures to ensure prevention of ground water pollution as per Annexure III of the guidelines.
- 26) In case of new infrastructure projects having ground water abstraction of more than 20 m<sup>3</sup>/day, the firm/entity shall ensure implementation of dual water supply system in the projects.
- 27) In case of infrastructure projects, paved/parking area must be covered with interlocking/perforated tiles or other suitable measures to ensure groundwater infiltration/harvesting.
- 28) In case of coal and other base metal mining projects, the project proponent shall use the advance dewatering technology (by construction of series of dewatering abstraction structures) to avoid contamination of surface water.
- 29) The NOC issued is conditional subject to the conditions mentioned in the Public notice dated 27.01.2021 failing which penalty/EC/cancellation of NOC shall be imposed as the case may be.
- 30) This NOC is issued subject to the clearance of Expert Appraisal Committee (EAC) (if applicable).
- 31) In the self-compliance report, the PP shall submit details of Drilling Agency/ Agencies, which has/ have constructed BW(s)/ TW(s) along with undertaking to the effect that all necessary measures have been taken as per directions of Hon'ble Supreme Court provided in Annexure-VII of guidelines dated 24.09.2020 in respect of abandoned/ failed BW(s)/ TW(s)/Piezometer(s), if any. The PP is advised to engage registered drilling agency/ agencies. In the event of any mishap/ unfortunate incident due to negligence in taking measures for prevention of accident due to falling in Bore Well, both PP and concerned drilling agency shall jointly be held responsible and penal action as per extant Government rules shall be taken.

**(Non-compliance of the conditions mentioned above is likely to result in the cancellation of NOC and legal action against the proponent.)**

**18/11, जामनगर हाउस, मानसिंह रोड, नई दिल्ली - 110011 / 18/11, Jamnagar House, Mansingh Road, New Delhi-110011**

**Phone: (011) 23383561 Fax: 23382051, 23386743**

**Website: [cgwa-noc.gov.in](http://cgwa-noc.gov.in)**

**पानी बचाये – जीवन बचाये  
SAVE WATER - SAVE LIFE**

## CENTRAL GROUND WATER AUTHORITY

Department of Water Resources, River Development and Ganga Rejuvenation  
Ministry of Jal Shakti, Govt. of India

### Receipt

(As per the MoJS guidelines dated 24.09.2020 vide SO No. 3289(E) and amendments dated 29.09.2023 vide SO No. 1509(E))  
<https://cgwa-noc.gov.in>

Application No.:	21-4/5467/OR/INF/2023	Date of Issuance:23/02/2024
Name of Firm:	TATA STEEL UTILITIES AND INFRASTRUCTURE SERVICES LIMITED	
AppType Category:	Hospitals	
Application Type:	Infrastructure	
PAN/GSTIN No. of Firm/Individual:	AABCJ3604P /	

S N	Description	Amount (Rs.)
1.	Application Processing Fee	10000.00
2.	Ground Water Abstraction charges	
3.	Ground Water Restoration charges	
4.	Environmental Compensation Charges (ECRGW) (Date From to ) Days-	
5.	Penalty for non-Compliance of NOC conditions Condition to be mentioned	10000.00
6.	Adjustment Charges	
7.	Rebate	
8.	Charges for correction/modification in the existing issued No Objection Certificate	
S.No.	Description	Rate
(i)	Change in User ID	Rs. 5000
(ii)	Change in firm Name	Rs. 5000
(iii)	Extension of No Objection Certificate	Rs. 5000
(iv)	Issuance of duplicate No Objection Certificate	Rs. 5000
(v)	Issuance of corrigendum to No Objection Certificate	Rs. 5000
(vi)	Any other items/correction etc.	
Rs. Rupees Forty One Thousand Nine Hundred Only		41900.00

This is an system generated invoice, hence, does not require ink signed.



Term and conditions:

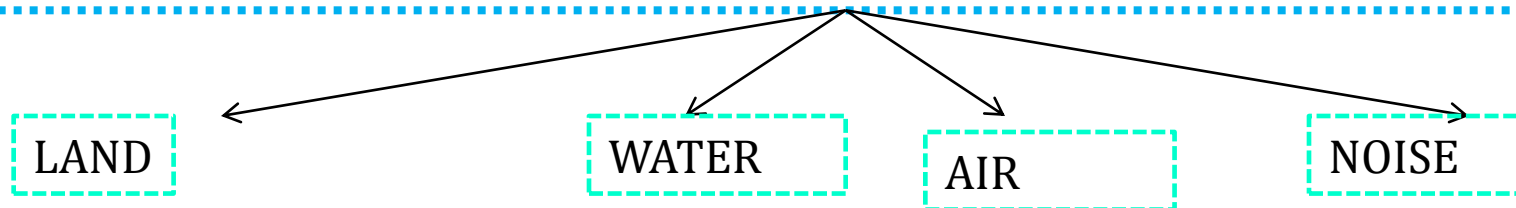
- i. All disputes are subject to Delhi Jurisdiction.
- ii. Any complaint in regard to the rates will not be entertained.

Member-Secretary  
CGWA, New Delhi

CENTRAL GROUND WATER AUTHORITY



## ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES





# WATER ENVIRONMENT MANAGEMENT

Anticipated Impact	Mitigation Measures
<p><b><u>Construction Phase:</u></b></p> <ol style="list-style-type: none"> <li>1. Use of large quantity of water in construction activities.</li> <li>2. Wastewater generation</li> </ol> <p><b><u>Operation Phase:</u></b></p> <ol style="list-style-type: none"> <li>1. Fresh water use for domestic activities.</li> <li>1. Wastewater generation</li> </ol>	<ol style="list-style-type: none"> <li>1. Water from private tankers will be used for construction activities.</li> <li>2. Curing water will be sprayed on concrete structures, free flow of water will not be done.</li> <li>3. Concrete structures will be covered with gunny bags and water would be sprayed on them.</li> <li>4. Mobile type toilets will be provided for laborers</li> </ol> <ol style="list-style-type: none"> <li>1. STP treated effluent will be reused for flushing, horticulture &amp; Surplus treated water will be supply to watering of external road side plantation, provided to STP treated water supplying agency, etc.</li> <li>2. Rainwater Harvesting system &amp; storage proposed to augment ground water resources.</li> </ol>

# AIR ENVIRONMENT MANAGEMENT

Anticipated Impact	Mitigation Measures
<p><b><u>Construction Phase:</u></b></p> <ol style="list-style-type: none"><li>1. Dust emission from transportation of construction material.</li><li>2. Gaseous emissions from construction machinery.</li><li>3. Dust from construction activities.</li></ol>	<ol style="list-style-type: none"><li>1. Site will be enclosed with 5 m high barricade around the project boundary which will act as a wind breaker.</li><li>2. Water sprinkling will be carried out for dust suppression.</li><li>3. Roads leading to project site are paved/blacktopped.</li><li>4. Transportation of construction material and excavated earth will be done through covered trucks.</li><li>5. Low sulphur diesel will be used for transportation vehicles and construction machinery.</li><li>6. Vehicles having valid pollution under control (PUC) certificate will be allowed to enter the project site.</li><li>7. Grinding and cutting of building material will not be done in open area.</li><li>8. Dust mitigation measures shall be displayed prominently at project site for easy public viewing.</li></ol>



## AIR ENVIRONMENT MANAGEMENT (Contd.)

Anticipated Impact	Mitigation Measures
<p><b><u>Operation Phase:</u></b></p> <ol style="list-style-type: none"><li>1. DG sets operation</li><li>2. Vehicular movement</li></ol>	<ol style="list-style-type: none"><li>1. Low sulphur diesel (LSD) will be used for DG sets.</li><li>2. Stack height for DG sets will be provided as per CPCB norms.</li><li>3. Tree plantation along the periphery and road side.</li></ol>

# NOISE ENVIRONMENT MANAGEMENT

Anticipated Impact	Mitigation Measures
<p><b><u>Construction Phase:</u></b></p> <p>1. Noise from construction machinery and vehicular movement.</p> <p>2. Noise from DG sets operation.</p> <p><b><u>Operation Phase:</u></b></p> <p>1. Vehicular movement</p> <p>2. DG sets operation</p>	<p>1. Regular maintenance of construction machinery</p> <p>2. The site will be enclosed with 5 m high barricade along the periphery.</p> <p>3. The DG sets will be acoustically enclosed.</p> <p>1. Tree plantation along the periphery and road side.</p> <p>2. DG sets will be acoustically enclosed.</p>





Drinking water facility at site

# PHOTOGRPAHS



Safety Posters at project site



# PHOTOGRAPHS



Toilet facility for labor and staff

### LAB DATA (JUNE 2025)

Homi Bhabha Cancer Hospital & Research Centre by M/s Tata Memorial Care Village Padanpur, Tehsil Jatni, District Khurda, Odisha.						
Ambient Air Quality Data March-2025				Location: AAQ-1 (Project.Site)		
S.No	Date	PM10,µg/m3	PM2.5,µg/m3	SO <sub>2</sub> µg/m3 ,	NO <sub>2</sub> ,µg/m3	CO, µg/m3
		IS:5182:Pt-23	IS:5182:Pt-24	IS:5182:Pt-2	IS:5182:Pt-6	IS:5182:Pt-10
1	03.03.2025	77.9	35.5	8.8	12.5	380
2	06.03.2025	72.1	33.1	9.5	17.0	390
3	10.03.2025	80.6	37.3	10.2	11.6	400
4	14.03.2025	69.8	32.7	9.3	15.3	310
5	17.03.2025	81.9	39.3	8.6	10.8	400
6	20.03.2025	79.4	34.4	10.4	12.3	360
7	24.03.2025	69.5	31.1	9.7	11.2	440
8	28.03.2025	74.6	33.9	10.8	12.6	360
	Min	69.5	31.1	8.6	10.8	310
	Max	81.9	39.3	10.8	17.0	440
	Average	75.7	34.7	9.7	12.9	380
	98 Percentile	81.7	39.0	10.7	16.8	434
NAAQS, For 24 hourly monitoring (except CO for One hour)		100	60	80	80	4000



# LAB DATA (JUNE 2025)

**Homi Bhabha Cancer Hospital & Research Centre by M/s Tata Memorial Care Village Padanpur, Tehsil Jatni, District Khurda, Odisha.**

## Ground water Quality March-2025

S.No	Parameter	Unit	Standard Limit (IS-10500:2012, RA 2023)		GW-1
			Desirable Limit	Permissible Limit	Project site
1	Colour	Hazen	5	15	<5
2	Odour	-	Agreeable	Agreeable	Agreeable
3	Turbidity	NTU	1	5	<1
4	pH	-	6.5-8.5	No Relaxation	7.39
5	Total Dissolved Solids (TDS)	mg/l	500	2000	385
6	Total Hardness (as CaCO <sub>3</sub> )	mg/l	200	600	220
7	Total Alkalinity (as CaCO <sub>3</sub> )	mg/l	200	600	180
8	Chlorides (as Cl)	mg/l	250	1000	75
9	Fluoride (as F )	mg/l	1	1.5	0.4
10	Calcium(as Ca <sup>2+</sup> )	mg/l	75	200	53
11	Magnesium (as Mg <sup>2+</sup> )	mg/l	30	100	21
12	Sulphate (as SO <sub>4</sub> )	mg/l	200	400	32
13	Nitrate(as NO <sub>3</sub> )	mg/l	45	No Relaxation	3.4
14	Iron (as Fe)	mg/l	1	No Relaxation	0.24
15	Aluminum (as Al)	mg/l	0.03	0.2	<0.01
16	Copper (as Cu)	mg/l	0.05	1.5	<0.01
17	Manganese (as Mn)	mg/l	0.1	0.3	<0.01
18	Boron (as B)	mg/l	0.5	1	<0.01
19	Zinc (as Zn)	mg/l	5	15	<0.01
20	Selenium ( as Se )	mg/l	0.01	No Relaxation	<0.01
21	Arsenic (as As)	mg/l	0.01	0.05	<0.01
22	Cadmium (as Cd)	mg/l	0.003	No Relaxation	<0.001
23	Total Chromium (as Cr <sup>3+</sup> )	mg/l	0.05	No Relaxation	<0.01
24	Cyanide (as CN )	mg/l	0.05	No Relaxation	<0.01
25	Lead (as Pb)	mg/l	0.01	No Relaxation	<0.01
26	Mercury (as Hg)	mg/l	0.001	No Relaxation	<0.001
27	Nickel (as Ni)	mg/l	0.02	No Relaxation	<0.01
28	Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH)	mg/l	0.001	0.002	<0.001
29	Anionic Detergent (as MBAS)	mg/l	0.2	1	<0.01
30	Silica (as SiO <sub>2</sub> )	mg/l	,---	,---	5.3
31	Phosphate (as PO <sub>4</sub> )	mg/l	,---	,---	0.9
32	Specific	µS/cm	,---	,---	580

## LAB DATA (JUNE 2025)

	Conductivity			
<b>Bacteriological Parameter</b>				
1	Total Coliform	MPN/100ml	Shall not be detectable in any 100ml Sample	Not Detected (<2)
2	<u>E.coli</u>	MPN /100ml	Shall not be detectable in any 100ml Sample	Absent (<2)

Noise Quality data March-2025						
S.No .	PROJECT SITE	ZONE	LIMIT (as per CPCB Guidelines),Leq dB(A)		Observed value, Leq,dB(A)	
			DAY *	NIGHT**	DAY*	NIGHT**
1	Project site	Silence zone	50	40	47.9	38.5

*	Day time	(6.00AM TO 10.00PM)
**	Night time	(10.00PM TO 6.00AM)



# LAB DATA (JUNE 2025)

Soil Quality Data (March-2025)			
S.No	Parameter	Unit	SQ1 Project Site
1	Texture	-	Sandy Clay Loam
2	Particle Size Distribution		
	Sand	%	54.6
	Silt	%	16.8
	Clay	%	28.6
3	pH (1:2 Suspension)	-	7.49
4	Electrical Conductivity (1:2 Suspension)	µS/cm	288
5	Moisture Content	%	10.2
6	Cation Exchange Capacity	meq/100gm	13.9
7	Available Potassium (as K)	mg/kg	49
8	Exchangeable Sodium (as Na)	mg/kg	116
9	Exchangeable Calcium (as Ca)	mg/kg	2085
10	Exchangeable Magnesium (as Mg)	mg/kg	345
11	Sodium Absorption Ratio	-	0.62
12	Organic Matter	%	0.89
13	Total Nitrogen (as N)	mg/kg	41
14	Nitrate (as NO <sub>3</sub> )	mg/kg	9.4
15	Total Phosphorus (as PO <sub>4</sub> )	mg/kg	6.7
16	Iron (as Fe)	mg/kg	4.2
17	Zinc (as Zn)	mg/kg	1.3
18	Copper (as Cu)	mg/kg	1.4
19	Boron (as B)	mg/kg	1.6
20	Manganese (as Mn)	mg/kg	12.9
21	Water Holding Capacity	%	33.5
22	Permeability	cm/hr	1.9
23	Porosity	%	28.9
24	Bulk Density	gm/cc	1.36

**Waste Water Generation & Treatment**

It is expected that the project will generate approx. 343 KLD of wastewater. Approx. 78 KLD of wastewater will be treated in an on-site ETP of 95 KL capacity and 265 KLD of wastewater will be treated in an onsite STP of 350 KL combined capacity (i.e. 1 x 250 KL for Hospital & Pediatric Wing and 1 x 100 KL for Dharamshala and Guest House). The treated water from STP will be reused for flushing, horticulture and HVAC.

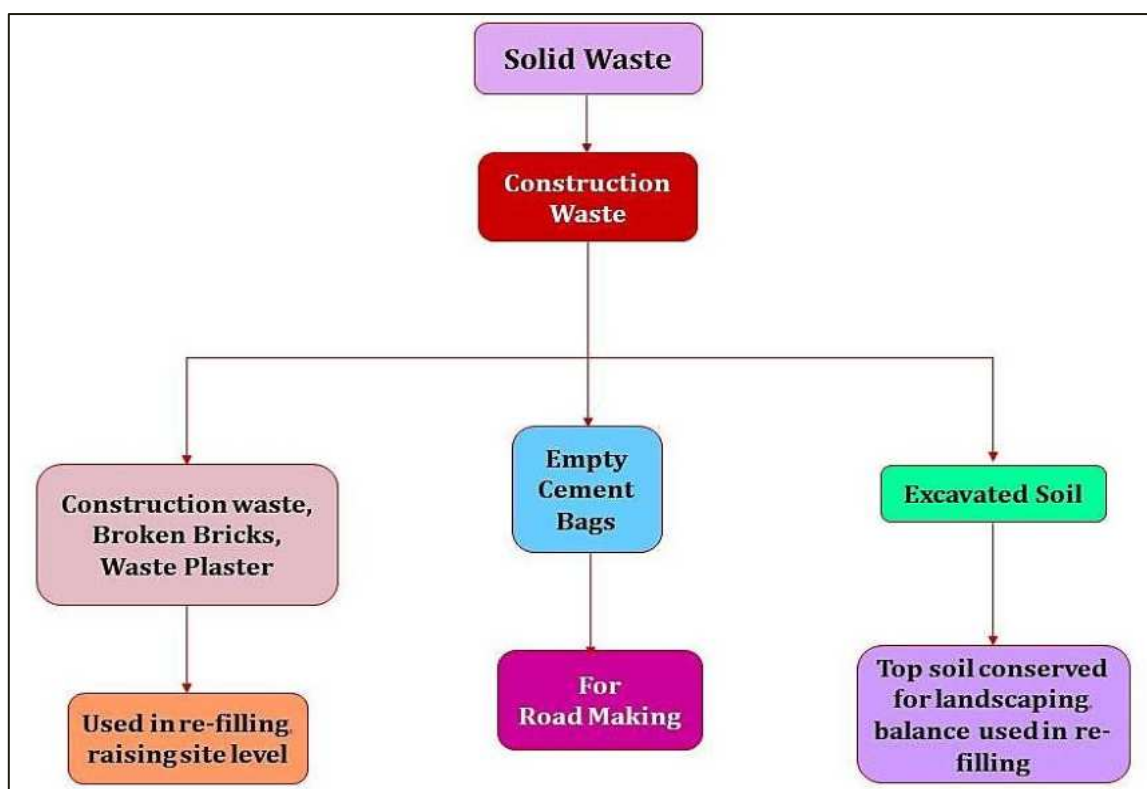
**SOLID WASTE GENERATION**

Solid waste would be generated both during the construction as well as operation phase. The solid waste expected to be generated during the construction phase will comprise of excavated materials, used bags, bricks, concrete, MS rods, tiles, wood, etc.

The following steps are proposed to be followed for the management solid waste:

- Construction yards are proposed for storage of construction materials.
- The excavated material such as topsoil and stones will be stacked for reuse during later stages of construction.
- Excavated top soil will be stored in temporary constructed soil bank and will be reused for landscaping of the group housing project.
- Remaining soil shall be utilized for refilling / road work / rising of site level at locations/ selling to outside agency for construction of roads etc.
- The Bio-medical waste will be managed using Autoclave and incinerator.
- Domestic Bio-degradable waste will be composted using OWC.





**Figure 1 : Solid Waste Management Scheme (Construction Phase)**

During the operation phase, approx. 1,910 kg/day. Details are provided in table below: ,

**Table 1: Calculation of Solid Waste**

S. No.	Particulars	Norms (Kg/capita/day)	Waste generated (kg/day)
1.	Indoor patients*	395 @1.5 kg/bed/day	592.5
2.	Guests	940 @0.5 kg/bed/day	470
3.	Residential Staff (Maintenance)	38 @0.5 kg/day	19
4.	Non-residential Staff (Doctors + Visitors)	1,282 @0.25 kg/day	320.5
5.	Out-Patients	3000 @0.15 kg/day	450
6.	Landscape waste (8.53 acre)	@0.2 kg/acre/day	1.7
	<b>Sub-total waste</b>		<b>1853.7 kg/day</b>
7.	STP Sludge (Waste water x 0.35 x B.O.D difference/1000)		36.17
8.	ETP Sludge (Waste water x 0.35 x B.O.D difference/1000)		20.20
	<b>Total Solid Waste</b>		<b>1,910 kg/day</b>
	*Bio-Medical waste	@ 25% of the waste generated/bed	<b>148 kg/day</b>

Following arrangements will be made at the site in accordance to Solid Waste Management Rules, 2016:

❖ **Collection and Segregation of waste**

1. A local vendor will be hired for waste collection and disposal from project.
2. Adequate number of colored bins (Green and Blue & dark grey bins– separate for Bio-degradable and Non Bio-degradable) are proposed to be provided at the strategic locations.
3. Litter bins will also be provided in open areas like parks, etc.

❖ **Treatment of waste**

• **Bio-Degradable waste**

1. Bio-degradable waste will be subjected to composting by organic waste converter and the compost will be used as manure.
2. STP sludge is proposed to be used for horticultural purposes as manure.
3. Horticultural Waste is proposed to be composted and will be used for gardening purposes.

• **Recyclable wastes**

- i. Grass Recycling – The cropped grass will be spread on the green area. It will act as manure after decomposition.
- ii. Recyclable wastes like paper, plastic, metals etc. will be sold off to recyclers.

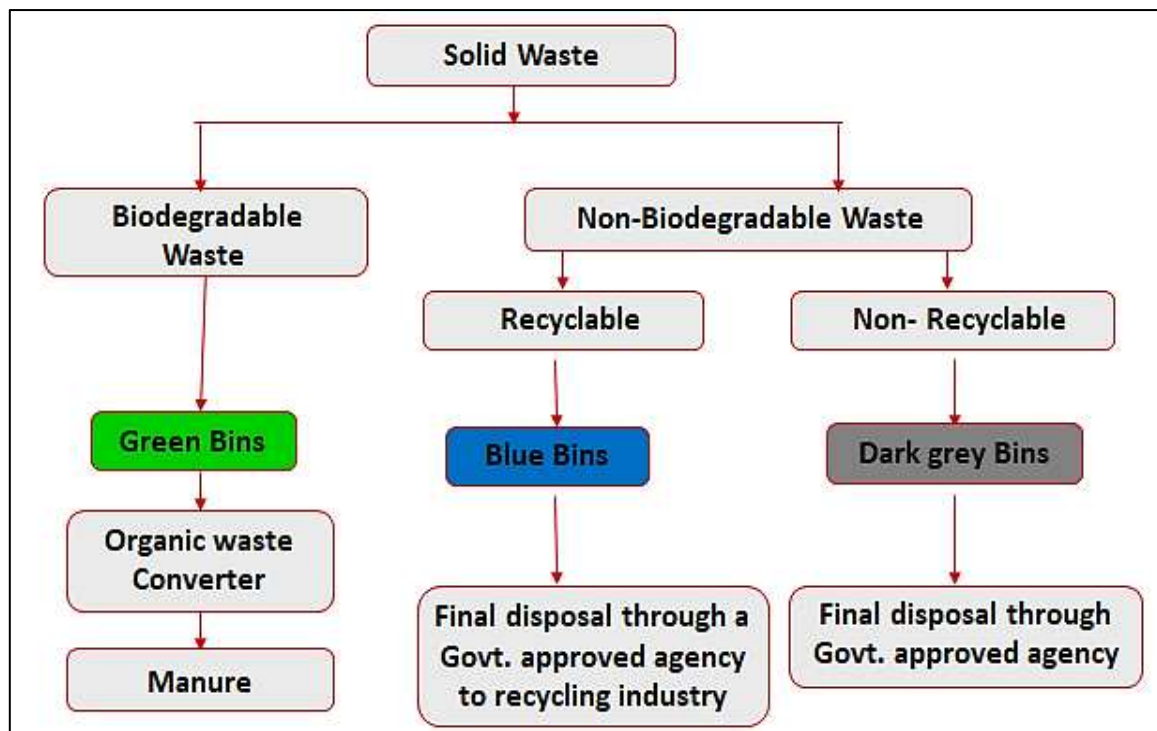
❖ **Disposal**

Recyclable and non-recyclable waste will be disposed through a local agency.

Biomedical Waste will be disposed through an approved agency as per Biomedical Waste Management Rules, 2016 (amended 2019).

Solid waste management scheme is depicted in the following figure:





**Figure 2 : Solid Waste Management Scheme (Operation Phase)**



**Figure 3: BMW Management Scheme (Operation Phase)**

### **list of radioactive/nuclear devices along with their safety measures.**

#### **1. SPECT-CT scanner:-**

The diagnostic activities are done using  $^{131}\text{I}$  **iodine**,  $^{99\text{m}}\text{Tc}$  **technetium** attached radiopharmaceuticals. They have short half lives of 6 days & 6hrs respectively.  $^{99\text{m}}\text{Tc}$  occupies 90% of our case profile. Patients are injected with an approved dose between 0.5 millicuries to 20 millicuries. After scanning, the activity reduces to low levels which are below the regulations stipulated levels. patients then go home.

#### **2. PETCT scanner:-**

Here  $^{18}\text{F}$  &  $^{68}\text{Ga}$  **gallium** are the isotopes used as Radiopharmaceuticals; they have half life of 2 hrs and 1 hr respectively. Patients are injected and kept in special room/area and after voiding, they are scanned. Post voiding scan which is typically 90 minutes after injection, radiation inside the body is well below regulatory stipulated levels. The toilet waste is sent out through a dilute and disperse mechanism.

#### **3. Brachytherapy source-**

Iridium is used as radioisotope for LDR Brachytherapy which has an half life of.....To add...usually the source is inside a bunker which mitigates the risk of emission. The radio-isotopes waste is disposed in decay tanks

The entire nuclear medicine facility right from plan, layout to final installation of equipment and license to operate is controlled through the AERB-Atomic energy regulatory Board. Annual report and event report if any is to be submitted as per rules.



### ENERGY CONSERVATION MEASURES

- LED based lighting will be done in the common areas, signages, entry gates and boundary walls etc.
- Use of solar lights in common areas
- Energy efficient motors.
- Appropriate design to reduce heat gain and loss.
- Maximization of natural ventilation & lighting.
- Compliance to AEDA & ECBC norms.

### ECBC COMPLAINE

#### Section 4 - Building Envelope

S. No.	Building Envelope Component	ECBC Prescriptive Compliance	Proposed
1	Top Roof	Reflectance = 0.7 (U = 0.261 W/sqm K (max) ; Initial Solar min) ; Initial Emittance = 0.75(min)	Heat Reflective tile/china mosaic + 35 mm screed + geo textile & plastic sheet + 75 mm XPS Board + Waterproofing+ 150 mm RCC (with steel) + putty finish U= 0.12W/ sqm K
2	External Wall	U = 0.44 W/sqm K (max)	External light colored paint + 230 mm Brick wall + 15 mm Cement plaster U = 0.36 W/sqm K (max)
3	Fenestration	U = 3.3 W/sqm K (max) ; SHGC = 0.25 (max) ; VLT = 0.27 (min)	Single Glazing with improved SHGC along with horizontal and vertical shading devices, further reducing the effective SHGC. U = 3.8 W/sqm K (max) (coolite)
4	Air Leakages	Control air leakage through entrance doors within 5.0 l/s/sqm and through other windows and doors to 2.0 l/s/sqm	Since the project is Centrally air conditioned and we have considered fresh air through TFA units & for shops, fresh air will be taken through infiltration

## Section 5 - HVAC

S. No.	HVAC Component	ECBC Prescriptive Compliance	Proposed
1	Natural Ventilation	NBC Part 8 Section-1, 5.4.3 and 5.7.1.	Since the building height is more than 15 mtrs, we have considered both Mechanical & Natural ventilation as per NBC 2016.
2	Minimum Equipment Efficiency	The cooling equipment must meet minimum efficiency parameters as prescribed by ECBC 2017	Flats: The developer shall not be providing air conditioning equipment, since the project is primarily designed to be naturally ventilated.  However, the tenant and occupant guideline shall be provided by the developer specifying energy efficient minimum 3 star rated Inverter AC's

## Section 7 – Lighting

S. No.	Lighting	ECBC Prescriptive Compliance	Proposed
1	7.2.1 Lighting Controls	24 hour use building are excluded from this requirement	Timer based on/off control shall be provided for common area lighting.
2	7.2.3 Efficacy	Lighting for exterior building ground luminaries which operate at greater than 100 W shall contain lamps with minimum efficacy of 60 lm/W unless controlled by a motion sensor	Though the luminaries are not more than 100 watts, 100 % external lighting shall meet efficacy value of 60 lm/W



3	7.3.1 Common area Interior Lighting Power Density	Plan artificial lighting design lower than the maximum permissible Lighting Power Density recommended by ECBC  Maximum permissible LPD is 9.5 W/sqm as per Building Area Method	Internal Lighting in Developers Scope:  LED's based energy efficient lighting shall be used. Lighting Power Densities shall be in adherence to ECBC Staircase LPD = 1.2 W/sqm  Lobbies and Entrance Foyers = 2.82 W/sqm Basement = 0.73 W/sqm  The internal lighting inside the floors is not in the developer's scope. However, the tenant and occupant guideline shall be provided by the developer specifying the maximum permissible LPD of 7.5 W/sqm as per ECBC
4	7.3.5 Exterior Lighting Power Density	Plan artificial lighting design lower than the maximum permissible Lighting Power Density recommended by ECBC	LED based energy efficient lighting shall be used and the LPD shall be well within the maximum allowed LPD limits.

## Section 8 – Electrical Power

S. No.	Electric Power	ECBC Prescriptive Compliance	Proposed
1	8.2.1 Transformers & DG Sets.	Maximum Allowable losses as per ECBC	The project has proposed 1 nos. of DG of 1 x 400 KVA rating. Transformers shall be efficiency efficient low loss as per ECBC compliant Transformers.
2	8.2.2 Motors	Minimum Efficiency as per ECBC	The motors used by pumps proposed in the project shall be energy efficient complying with the ECBC norms.



GOVERNMENT OF ODISHA  
HEALTH & FAMILY WELFARE DEPARTMENT

\*\*\*\*\*

No.HFW-MEH-ESTT-0013-2022-

21750

/H&amp;F.W. Date- 28-09-2022

From

Dr. Ajit Kumar Mohanty

Special Secretary (PH) to Government

To

The Principal Secretary to Government,  
Energy Department

Sub: Provision of 2 phase electricity supply to ensure uninterrupted power supply in connection with establishment of Cancer Hospital by TMC, Mumbai inside the campus of NISER, BBSR

Sir,

In-inviting a reference to this Department memo No.19937/H dtd.12.09.2022 on the subject cited above, I am directed to enclose here with a copy of the letter dtd. 08.09.2022 received from the Director, TMC, Mumbai wherein he has requested for making provision of two phased electricity supply to ensure uninterrupted power supply at a subsidized rate to the Cancer Hospital to be established by TMC, Mumbai in the campus of NISER, BBSR .

It has been decided in the meeting held on 26.08.2022 at 3rd Floor, Conference Hall, Lok Seva Bhawan, BBSR to provide power supply from two different OPTCL-GSS units i.e. from Arugul as primary source and from Mendhasal as an alternative source for the aforesaid purpose. Further, Government orders may kindly be obtained on the request of TMC for providing power at subsidized rate.

Therefore, you are requested to take necessary steps on the proposal submitted by TMC, Mumbai following due procedures under intimation to this Department.

Yours faithfully,

Special Secretary to Government

Date- 28-09-2022

Memo No. 21751 H,

Copy forwarded to the PS to Chief Secretary, Odisha, for kind information of Chief Secretary.

Special Secretary to Government



Memo No. 21752 H,

Date- 28-09-2022

Copy along with its enclosures forwarded to the Director, OPTCL / TPCODL, BBSR for kind information and necessary action with reference to this Deptt. Letter No.19934/H dtd.12.09.2022.

Memo No. 21753 H,

Special Secretary to Government

Date- 28-09-2022

Copy forwarded to Dr. (Prof.) R. A. Badwe MS, Director, TMC, Mumbai, At-Dr. Ernest Borges Marg, Parel, Mumbai-400012 (E-mail- badwera@tmc.gov.in) for kind information and necessary action with reference to his letter dtd.08.09.2022.

Special Secretary to Government

# DG STACK EMISSION DETAILS

ANNEXURE-14

Stack No.	DG set Capacity (kVA)	Stack & Flue details				Pollutants Emission				
		Height (m)	velocity (m/s)	Temp (K)	Diameter (mm)	NO <sub>x</sub> (g/s)	SO <sub>2</sub> (g/s)	PM <sub>10</sub> (g/s)	PM <sub>2.5</sub> (g/s)	CO (g/s)
1.	1,250	37	25	453	450	2.04	0.006	0.042	0.028	0.78
2.	1,250	37	25	453	450	2.04	0.006	0.042	0.028	0.78
3.	1,250	37	25	453	450	2.04	0.006	0.042	0.028	0.78
4.	1,630	38	25	453	330	2.32	0.008	0.078	0.052	0.27
5.	1,630	38	25	453	330	2.32	0.008	0.078	0.052	0.27
6.	80	36	25	453	190	0.51	0.001	0.012	0.008	0.19
<b>Total Emission in g/s from 3 nos. of 1,250 kVA, 2 nos. of 1,630 kVA and 1 no. of 80 kVA (total capacity 7,090 kVA)</b>						<b>11.27</b>	<b>0.017</b>	<b>0.294</b>	<b>0.196</b>	<b>3.07</b>

The minimum height of stack to be provided with each generator set has been worked out using the following formula:

$$H = h + 0.2\sqrt{kVA}$$

Where:

H = Total height of stack in meter

h = Height of the building in meters

kVA = Total generator capacity of the set in kVA

Building height+6 m

(Max of them)



- Total green area measures 34,530.51 m<sup>2</sup> (20.53% of plot area)
- Evergreen tall and ornamental trees have been proposed to be planted inside the premises. The list of trees/plants to be planted.
- No. of trees required = 1 tree/80 sq.m. of plot area =  $1,68,195.4/80 = 2,102$  Nos.
- Total no. of trees proposed = **2150 trees.**

# LANDSCAPE DETAILS

S. No.	Type	Common Name	Scientific Name	Family	No of Trees
1.	A39	Dhaura	<i>Anogeissus latifolia</i>	Combretaceae	100
2.	A44	Neem	<i>Azadirachta indica</i>	Meliaceae	150
3.	D2	Indian rosewood	<i>Dalbergia sissoo</i>	Fabaceae	200
4.	L2	Jarul	<i>Lagerstroemia speciosa</i>	Lythraceae	175
5.	M7	Bakain	<i>Melia azedarch</i>	Meliaceae	150
6.	M10	Bakula	<i>Mimusops Elengi</i>	Sapotaceae	250
7.	S5	Bod	<i>Salix tetrasperma</i>	Salicaceae	250
8.	S13	Rahan	<i>Soymida tebrifuya</i>	Meliaceae	200
9.	T5	Saja	<i>Terminalia alata</i>	Combretaceae	275
10.	T6	Arjun	<i>Terminalia arjuna</i>	Combretaceae	175
11.	T9	Harra	<i>Terminalia Chebulo</i>	Cambretaceae	225
-	Total				2150

An EMC (Environment Management Cell) will be formed by the company & its responsibilities will be as follows:

## **Interaction with the State Pollution Control Board**

- EMC will be in regular touch with SPCB and will send them environmental monitoring reports regularly in the prescribed format, as per the prevailing practice.
- Any new regulations considered by State/Central Pollution Control Board for the Industry will be taken care of by EMC.

## **Provide Training**

- EMC would be responsible for the implementation of the EMP. For the project, additional training facilities will be developed for environmental control.
- For proper implementation of the EMP, the officials responsible for EMP implementation will be trained accordingly.

## **Other Responsibilities of the Cell Will Include**

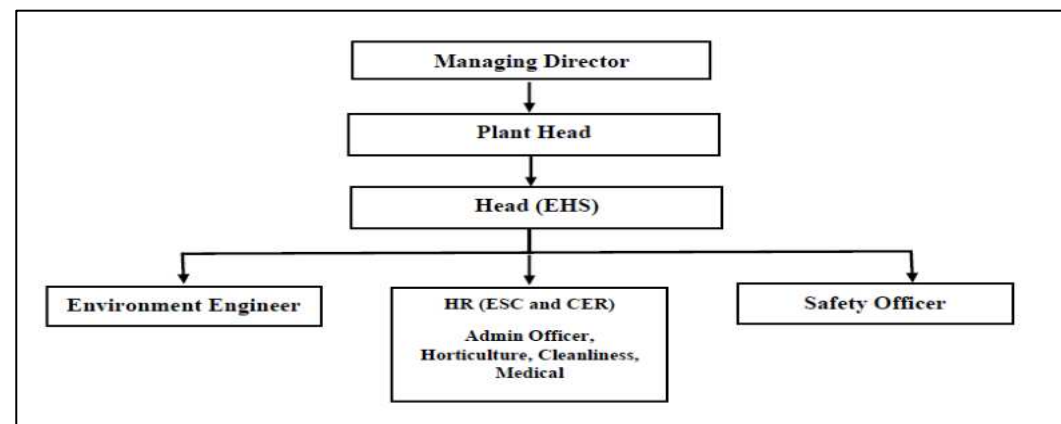
- Timely renewal of Consents & Authorization will be taken care of.
- Submitting environmental monitoring report to SPCB. The cell will also take mitigative or corrective measures as required or as suggested by the Board.
- Conduct and submit annual Environmental Statement to SPCB.
- Prepare and submit six monthly report on the compliance with the conditions of the environmental clearance
- Keeping the management updated on regular basis about the findings / results of monitoring activities and proposes measures to improve environmental performance.
- Conducting regular safety drills and training programs to educate employees on safety practices. A qualified and experienced safety officer will be responsible for the issues related to occupational safety and health.
- Conducting safety and health audits to ensure that recommended safety and health measures are followed.



# DETAILS OF ENVIRONMENT MANAGEMENT CELL

## SOP for Flow of Information

- The Environmental Management Group would consist of Environment Engineer, HR (ESC and CER) Admin office, Horticulture, Cleanliness, Medical and Safety officer headed by Plant Head and Head (EHS) reporting to Managing Director.
- During the construction of the project, Project Review Team (PRT) meetings will be held every month wherein officials from the project and corporate centre will participate and discuss the progress and problems related to implementation of schedules of activities for construction, completion and commissioning.
- Monthly Operation Review Team (ORT) meetings for the project will be also held during project operation.
- The issues related to the compliance of environmental norms including problems associated with the mitigation measures identified will be included in the agenda for quarterly review meetings, wherein action plan for remedial measures will be drawn and monitored.
- The Head-Environment will brief the ORT about the environmental performance of the plant and all compliances/non-compliances are brought to the notice of MD.
- Action plan is drawn for rectifying the Non-compliance.



Organization Chart of Environmental Management Cell