# STATE LEVEL EXPERT APPRAISAL COMMITTEE (SEAC), BIHAR

2<sup>nd</sup> Floor, BELTRON Bhawan, Shastri Nagar, Patna - 800023.

Ref. No. - 317.

Patna Dated: - 11 07 2022,

MINUTES OF 11<sup>th</sup> MEETING OF STATE LEVEL EXPERT APPRAISAL COMMITTEE (SEAC), BIHAR CONSTITUTED ON 12.08.2021

VENUE: SEIAA Office DATE: 02<sup>nd</sup> July, 2022

## Minutes/Proceeding of the Meeting

- Opening Remarks of the Chairman: The Chairman and Members extended warm
  welcome with each other and other participants of the meeting. Thereafter, the meeting
  was opened for the proceedings as per the agenda adopted for this meeting.
- 2. Confirmation of Minutes of 10<sup>th</sup> Meeting (10/2022) vide Ref. No.- 198, dated 03.05.2022 of State Expert Appraisal Committee held on 27<sup>th</sup> April, 2022. The State Expert Appraisal Committee, hereinafter called the SEAC, was informed that no representation has been received regarding projects considered in meeting held on 27<sup>th</sup> April, 2022. Minutes of meeting of the said SEAC was confirmed.
- 3. Consideration of Proposals: The SEAC considered proposals as per the agenda adopted for 11<sup>th</sup> meeting (11/2022) vide ref no. 306 dated- 28.06.2022. The key points of deliberations held were as follows.
- 4. With regard to the proposals submitted for the real-estate/ apartment/ residential building projects, industry, etc. Further, various issues concerning the green belt area/greenery, human health hazards and status of Waste Management, etc. were thoroughly discussed and scrutinized.

## Consideration of Environmental Clearance Proposal

## AGENDA ITEM NO. 01

Proposed Exploratory drilling of 2 two well in OALP BLOCK GV - ONHP-2021/1 at Village:- Malinagar, Tehsil:- Kalyanpur, District:- Samastipur, State:- Bihar, by M/s HSE, FRONTIER BASINS, ONGC, DEHRADUN- Reg. Environmental Clearance. (File No.: SIA/1(b)/2037/2022, Proposal No: SIA/BR/IND2/253126/2022)

Environment Consultant: M/s Oil and Natural Gas Corportaion.

Application along with filled up Form - 2, Pre-Feasibility Report and Environment Management Plan in the prescribed format was submitted to SEIAA, Bihar on 13<sup>th</sup> June, 2022 for obtaining Environmental Clearance (EC).

The Project Proponent made a presentation on the key parameters and salient features of the project. Based on discussion, the Committee found their presentation and proposal satisfactory and acceptable, hence the Committee decided to recommend the proposed proposal for grant of Environmental Clearance subject to the following special conditions in addition to the standard conditions as annexure "A".

- i. The Project Proponent should ensure crop compensation / land compensation to the land owners as per the rate approved by the Government.
- ii. After completion of the project, the land should be restored properly to its original state as much as possible to the satisfaction of the land owners.

## AGENDA ITEM NO. 02

Proposed Commercial and Residential Building Project of "Green Homes" at Mauza:-Rahimpur, P.S.:- Parsa Bazar, District:- Patna, State:- Bihar; by M/s Shital Buildtech, Darbhanga [Total Plot Area:- 49,688.52 m², Total Built-up Area:- 1,49,569.52 m²] – Reg. Environmental Clearance

(File No.: SIA/8(a)/2035/2022, Proposal No.: SIA/BR/MIS/261716/2022).

Environment Consultant: M/s PARAMARSH (Servicing Environment and Development).

Application along with filled up Form J, Form - I(A) and Conceptual Plan in the prescribed format was submitted to SEIAA Bihar on 26<sup>th</sup> May, 2022 for obtaining Environmental Clearance (EC).

The Project Proponent along with its environmental consultant PARAMARSH (Servicing Environment and Development), made a presentation on the key parameters and salient features of the project. Based on discussion, the committee sought the following information/documents:-

- Submit the approved route/approach road for the proposed project and also submit the status of the approach road as per the relevant government records.
- 2. Different data provided in form-1 and form-1A for total plot area. This should be corrected.
- 3. Also submit management plans for STP, solid waste management and first-aid facilities with emergency numbers.
- 4. Provide revised plan of green area, open area, rainwater harvesting, groundwater recharge and roof top solar system plans.

## AGENDA ITEM NO. 03

Proposed Medical & Allied Sciences Campus (KK Medical College & Hospital) a Unit of Samajik Kalyan Sanstha at Village:- Lodipur, Tehsil:- Rajgir, District:- Nalanda, State:- Bihar; by M/s Samajik Kalyan Sanstha [Total Plot Area:- 99,209.56 m², Total Built-up Area:- 1,36,688.57 m²] – Reg. Environmental Clearance (File No.: SIA/8(a)/2033/2022, Proposal No.: SIA/BR/MIS/272191/2022).

Environment Consultant: M/s PARAMARSH (Servicing Environment and Development).

Application along with filled up Form - I, Form - I(A) and Conceptual Plan in the prescribed format was submitted to SEIAA, Bihar on 23<sup>rd</sup> May, 2022 for obtaining Environmental Clearance (EC).

The Project Proponent along with its environmental consultant PARAMARSH (Servicing Environment and Development), made a presentation on the key parameters and salient features of the project. Based on discussion, the Committee found their presentation and proposal satisfactory and acceptable, hence the Committee decided to recommend the proposed proposal for grant of Environmental Clearance subject to the following special conditions in addition to the standard conditions as annexure "B".

- 1. Provide solar panels over 30% of total rooftop area (open terrace).
- 2. Plantation along the road as suggested in the meeting by increasing green belt.

- Corporate Environmental Responsibility (CER) proposal, in consultation with the
  concerned authority of the Local Body (Municipal Corporation/Municipality/Nagar
  Panchayat/Gram Panchayat) by clearly outlining the type of activities, which shall
  predominantly include Municipal Solid Waste Management activities like
  - a) Material Recovery Facility (MRF).
  - b) Wet Waste processing Facilities.
  - c) waste collection vehicles, etc.
- 4. The management plans of biomedical waste, hazardous waste and wastewater containing virus/bacteria may be elaborated to avoid any kind of contamination to the groundwater and surface water in the vicinity of the Medical college.

Proposed Commercial and Residential Building Project of "Crystal Apex" at Village:-Jalalpur, Tehsil:- Danapur-cum-Khagaul, District:- Patna, State:- Bihar; by M/s Singh Engicon (I) Private Limited [Total Plot Area:- 15,217.60 m², Total Built-up Area:-46,828.65 m² (Existing + Proposed)] – Reg. Environmental Clearance (File No.: SIA/8(a)/2040 (Exp.)/2022, Proposal No.: SIA/BR/MIS/279195/2022).

Environment Consultant: M/s PARAMARSH (Servicing Environment and Development).

Application along with filled up Form - I, Form - I(A) and Conceptual Plan in the prescribed format was submitted to SEIAA, Bihar on 28<sup>th</sup> June, 2022 for obtaining Environmental Clearance (EC).

The Project Proponent along with its environmental consultant M/s. PARAMARSH (Servicing Environmental and Development), made a presentation on the key parameters and salient features of the project. Based on discussion, the Committee found their presentation and proposal satisfactory and acceptable, hence the Committee decided to recommend the proposed proposal for grant of Environmental Clearance subject to the following special conditions in addition to the standard conditions as annexure "C".

- 1. Provide solar panels over 30% of total rooftop area (open terrace).
- 2. Plantation along the road as suggested in the meeting by increasing green belt.
- Corporate Environmental responsibility (CER) proposal, in consultation with the
  concerned authority of the Local Body (Municipal Corporation/Municipality/Nagar
  Panchayat/Gram Panchayat) by clearly outlining the type of activities, which shall
  predominantly include Municipal Solid Waste Management activities like-

- a) Material Recovery Facility (MRF).
- b) Wet Waste processing Facilities.
- c) waste collection vehicles, etc.
- d) First-aid medical facilities with emergency numbers.
- 4. Make provisions for enough number of electric vehicle charging points at each parking area, for both four wheelers and two wheelers.
- The management plans of STP, roads, basic amenities, solid waste management, first aid-medical facilities, emergency telephone numbers etc. are essentially needed.

Proposed Setting up a Formaldehyde manufacturing unit at Samastipur Industrial Area, Plot no.-84 to 92, Harpur Alloth, District:- Samastipur, State:- Bihar by M/s Samrat Laboratories (Total Capacity: 100 MTPD) – Reg. Environmental Clearance (File No.: SIA/5(f)/1714/2021, Proposal No.: SIA/BR/IND3/369464/2021).

Environment Consultant: -M/s-Rian Enviro Private Limited.

Application along with filled up Form - I, and Pre-Feasibility Report in the prescribed format was submitted to SEIAA, Bihar on 29<sup>th</sup> November, 2021 for obtaining Terms of Reference (ToR). ToR has been issued by SEIAA, Bihar vide F. No. SIA/5(f)/17l4/2021, dated 03.03.2022. Final EIA Report in the prescribed format was submitted to SEIAA, Bihar on 07<sup>th</sup> April, 2022 for obtaining Environmental Clearance (EC).

Earlier in the meeting dated- 27.04.2022, the committee had directed the Project Proponent to submit documents as mentioned in the proceeding of that meeting. Project Proponent has submitted the compliance of above meeting which was placed before the committee and the Project Proponent along with environmental consultant made a presentation and the same was found satisfactory and acceptable, hence the Committee decided to recommend the proposed proposal for grant of Environmental Clearance subject to the following additional conditions along with standard condition in Annexure "D".

- In addition, provide modalities for Rainwater harvesting (100%) which could be used for sprinkler system;
- There should be sprinklers for cooling the tank;
- There should be manual fire alarm system apart from the automatic alarm system;
- Conduct mock alarm drill at every six months and latest report should be submitted to SEAC;

- 5. The important mobile number (contact number) in case of emergency should be displayed at every corner of the industry even at the entry gate;
- 6. There should be fire control system;
- 7. Provide enough number of First Aid Box and other emergency medicine, stretcher, Mask, Sanitizer etc away from the plant area at the entry and exit gates.
- 8. There should be emergency exit in the premises;
- 9. Sand bags should also be place at appropriate places;
- 10. Formaldehyde carrying pipes to the storage tank should be checked at weekly interval;
- 11. Faunal study (Birds, Reptiles and Mammalian diversity) should be carried out at every year and a consolidated report should be submitted along with the environmental statement by the industry to SEIAA, BSPCB and Regional office MoEF&CC, GoI;
- 12. Insect (Butterfly) park should be prepared within the campus in a area of 50 feet x 50 feet;
- 13. Automatic Sprinkler system must be installed near storage tank and operational unit. It should start working immediately/automatically in case of any leakage or increase in temperature.
  - In addition, provide modalities for Rainwater harvesting (100%) which could be used for sprinkler system.
- 14. Coal handling plant must be improved /upgraded as per rule and must not be done in open place to check fugitive emission.

Proposed expansion of Residential Building Project of "Winsome Empire" at Mauza:-Sikandarpur, Thana:- Danapur, District:- Patna, State:- Bihar; by M/s Winsome Infrastructure [Total Plot Area:- 14,617.17 m², Total Built-up Area:- 49,840.08 m² (Existing + Proposed)] – Reg. Environmental Clearance

(File No.: SIA/8(a)/2029 (Exp.)/2022, Proposal No.: SIA/BR/MIS/266447/2022).

Environment Consultant: -M/s-Rian Enviro Private Limited.

Application along with filled up Form - I, Form - I(A) and Conceptual Plan in the prescribed format was submitted to SEIAA, Bihar on 20<sup>th</sup> May, 2022 for obtaining Environmental Clearance (EC).

The Project Proponent along with its environmental consultant Rian Enviro Private Limited, made a presentation on the key parameters and salient features of the project. Based on discussion, the committee sought the following information /documents:-

- Regional office of MoEF&CC, Ranchi has made a site inspection on dated 25.03.2022 and found that many Environmental Clearance Conditions have not being complied by the Project Proponent. Hence directed the project proponent to submit the action taken report.
- The SEAC Committee has done site inspection on dated 03.07.2022and found that the Project proponent has not been complied the previous Environmental Clearance Conditions till date.
- 3. The Consent to Establish (CTE) / Consent to Operate (CTO) as per the EC dated 06.05.2020 has not been furnished by the project proponent.
- 4. The Green cover area has not been furnished as per the Environmental Clearance Conditions and their guidelines.
- 5. There is only one entry and exit point for all the people residing in the campus, and visitors.
- 6. There are no STP constructed for any of the Blocks A, B, C and D in the project.

# Apart from the above, the committee issued the following direction:-

- Regional office of MoEF&CC, Ranchi has made a site inspection on dated 25.03.2022 and found that many Environmental Clearance Conditions have not being complied by the Project Proponent. Hence directed the project proponent to submit the action taken report through online;
- 2. The Project Proponent must obtain Consent to Establish (CTE) / Consent to Operate (CTO) in the light of previous environmental clearance issued;
- 3. Develop the Green cover area as per the previous granted Environmental Clearance Conditions;
- Sufficient land space must be allocated for green belt area (make green patch of 3m x 3m);
- 5. Remove the pool area from the proposed expansion area;
- 6. Explore the alternative entry and exit point for the project;
- Make provisions for enough number of electric vehicle charging points at each parking area, for both four wheelers and two wheelers;
- 8. The management plans of STP, roads, basic amenities, solid waste management, first aid-medical facilities, emergency telephone numbers etc. are essentially required.

Proposed Commercial and Residential Building Project of "Lotus Plaza" at Village:-Danapur, Tehsil:- Danapur-cum-Khagaul, District:- Patna, State:- Bihar; by M/s Nutan Constructions [Total Plot Area:- 9,194.02 m², Total Built-up Area:- 31,407.45 m² (Existing + Proposed)] – Reg. Environmental Clearance

(File No.: SIA/8(a)/2030/2022, Proposal No.: SIA/BR/MIS/270570/2022).

Environment Consultant: -M/s-Rian Enviro Private Limited.

Application along with filled up Form - I, Form - I(A) and Conceptual Plan in the prescribed format was submitted to SEIAA, Bihar on 20<sup>th</sup> May, 2022 for obtaining Environmental Clearance (EC).

The Project Proponent along with its environmental consultant Rian Enviro Private Limited, made a presentation on the key parameters and salient features of the project. Based on discussion, the Committee has found their proposal satisfactory and acceptable, hence the Committee decided to recommend the proposed proposal for grant of Environmental clearance subject to the following special conditions in addition to the standard conditions as contained in Annexure - "E".

- 1. Provide solar panels in 30% of total rooftop area (open terrace).
- Plantation along the road as suggested in the meeting by increasing green belt.
- Corporate Environmental responsibility (CER) proposal, in consultation with the
  concerned authority of the Local Body (Municipal Corporation/Municipality/Nagar
  Panchayat/Gram Panchayat) by clearly outlining the type of activities, which shall
  predominantly include Municipal Solid Waste Management activities like
  - e) Material Recovery Facility (MRF).
  - f) Wet Waste processing Facilities.
  - g) waste collection vehicles,etc
- Make provisions for enough number of electric vehicle charging points at each parking area, for both four wheelers and two wheelers.
- Visitors parking and Flat Owner parking should be separated.
- 6. The Green patch must be 15% of total plot area.
- 7. The management plans of STP, roads, basic amenities, solid waste management, first aid-medical facilities, emergency telephone numbers etc. are essentially needed.

Proposed Residential and Commercial Building Project of "RAGHUWAR COMPLEX" at Village:- Mustafapur, Danapur Khagaul, Tehsil:- Danapur-cum-Khagaul, District:- Patna, State:- Bihar; by M/s Kumar Constructions [Total Plot Area:- 11,547.16 m², Total Built-up Area:- 41,057.20 m²- Reg. Environmental Clearance

(File No.: SIA/8(a)/2031/2022, Proposal No.: SIA/BR/MIS/271308/2022).

Environment Consultant: -M/s-Rian Enviro Private Limited.

Application along with filled up Form - I, Form - I(A) and Conceptual Plan in the prescribed format was submitted to SEIAA, Bihar on 20<sup>th</sup> May, 2022 for obtaining Environmental Clearance (EC).

The Project Proponent along with its environmental consultant Rian Enviro Private Limited, made a presentation on the key parameters and salient features of the project. Based on discussion, the Committee has found their proposal satisfactory and acceptable, hence the Committee decided to recommend the proposed proposal for grant of Environmental clearance subject to the following special conditions in addition to the standard conditions as contained in Annexure - "F".

- 1. Provide solar panels in 30% of total rooftop area (open terrace).
- 2. Plantation along the road as suggested in the meeting by increasing green belt.
- Corporate Environmental responsibility (CER) proposal, in consultation with the
  concerned authority of the Local Body (Municipal Corporation/Municipality/Nagar
  Panchayat/Gram Panchayat) by clearly outlining the type of activities, which shall
  predominantly include Municipal Solid Waste Management activities like
  - h) Material Recovery Facility (MRF).
  - i) Wet Waste processing Facilities.
  - j) waste collection vehicles, etc
- Make provisions for enough number of electric vehicle charging points at each parking area, for both four wheelers and two wheelers.
- Visitors parking and Flat Owner parking should be separated.
- The Green patch must be 15% of total plot area.
- 7. Provide revised plan of green area, open area, rainwater harvesting, groundwater recharge and roof top solar system plans.

8. The management plans of STP, roads, basic amenities, solid waste management, first aid-medical facilities, emergency telephone numbers etc. are essentially needed.

#### AGENDA ITEM NO. 09

Proposed Residential Building Project of "Gulabi Mega City" at Mauza:- Damapur Sahjadpur, Tehsil:- Danapur-cum-Khagaul, District:- Patna, State:- Bihar; by M/s Gulabi Mega Construction Private Limited [Total Plot Area:- 9,563.80 m², Total Built-up Area:- 36,114.01 m²] – Reg. Environmental Clearance (File No.: SIA/8(a)/2034/2022, Proposal No.: SIA/BR/MIS/273978/2022).

Environment Consultant: -M/s-Rian Enviro Private Limited.

Application along with filled up Form - I, Form - I (A) and Conceptual Plan in the prescribed format was submitted to SEIAA, Bihar on 25<sup>th</sup> May, 2022 for obtaining Environmental Clearance (EC).

The Project Proponent along with its environmental consultant Rian Enviro Private Limited, made a presentation on the key parameters and salient features of the project. Based on discussion, the Committee has found their proposal satisfactory and acceptable, hence the Committee decided to recommend the proposed proposal for grant of Environmental clearance subject to the following special conditions in addition to the standard conditions as contained in Annexure - "G".

- 1. Provide solar panels in 30% of total rooftop area (open terrace).
- Plantation along the road as suggested in the meeting by increasing green belt.
- Corporate Environmental responsibility (CER) proposal, in consultation with the
  concerned authority of the Local Body (Municipal Corporation/Municipality/Nagar
  Panchayat/Gram Panchayat) by clearly outlining the type of activities, which shall
  predominantly include Municipal Solid Waste Management activities like
  - k) Material Recovery Facility (MRF).
  - 1) Wet Waste processing Facilities.
  - m) waste collection vehicles,etc
- 4. Make provisions for enough number of electric vehicle charging points at each parking area, for both four wheelers and two wheelers.
- 5. Visitors parking and Flat Owner parking should be separated.
- 6. The Green patch must be 15% of total plot area.

- 7. The approach road to the Apartment is not as per the movement of vehicle for the residents besides a big drain, so proper approach road approval may be obtained.
- 8. The management plans of STP, roads, basic amenities, solid waste management, first aid-medical facilities, emergency telephone numbers etc. are essentially needed.

Proposed Government Medical College and Hospital Project of Arrah at Mauza:-Bhelai & Ekauna, Tehsil:- Udwant Nagar, District:- Bhojpur, State:- Bihar; [Total Plot Area:- 1,01,172.50 m², Total Built-up Area:- 1,18,447 m²] – Reg. Environmental Clearance

(File No.: SIA/8(a)/2038/2022, Proposal No.: SIA/BR/MIS/279226/2022).

Environment Consultant: -M/s-Rian Enviro Private Limited.

Application along with filled up Form - I, Form - I(A) and Conceptual Plan in the prescribed format was submitted to SEIAA, Bihar on 27<sup>th</sup> June, 2022 for obtaining Environmental Clearance (EC).

The Project Proponent along with its environmental consultant Rian Enviro Private Limited, made a presentation on the key parameters and salient features of the project. Based on discussion, the Committee has found their proposal satisfactory and acceptable, hence the Committee decided to recommend the proposed proposal for grant of Environmental clearance subject to the following special conditions in addition to the standard conditions as contained in Annexure - "H".

- 1. Provide solar panels in 30% of total rooftop area (open terrace).
- Increase the green belt by way of tree along the boundary of railway track as suggested in the meeting.
- Change the location of STP and ETP as per suggestions given in the meeting and revise the Map accordingly. Provide revised plan of green area, open area, rainwater harvesting, groundwater recharge and roof top solar system plans.
- 4. The management plans of biomedical waste, hazardous waste and wastewater containing virus/bacteria may be elaborated to avoid any kind of contamination to the groundwater and surface water in the vicinity of the Medical college.

Proposed Residential Building Project of "The Emperor" at Mauza:- Sikandarpur, Tehsil:- Danapur-cum-Khagaul, District:- Patna, State:- Bihar; by M/s Hira Panna Infra Projects LLP [Total Plot Area:- 6,436 m², Total Built-up Area:- 31,113.70 m²] - Reg. Environmental Clearance

(File No.: SIA/8(a)/2039/2022, Proposal No.: SIA/BR/MIS/280088/2022).

Environment Consultant: -M/s-Rian Enviro Private Limited.

Application along with filled up Form - I, Form - I(A) and Conceptual Plan in the prescribed format was submitted to SEIAA, Bihar on 28<sup>th</sup> June, 2022 for obtaining Environmental Clearance (EC).

The Project Proponent along with its environmental consultant Rian Enviro Private Limited, made a presentation on the key parameters and salient features of the project. Based on discussion, the Committee has done site inspection on 03.07.2022 and found the proposal satisfactory and acceptable, hence the Committee decided to recommend the proposed proposal for grant of Environmental clearance subject to the following special conditions in addition to the standard conditions as contained in Annexure - "I".

- 1. Provide solar panels in 30% of total rooftop area (open terrace).
- Plantation along the road as suggested in the meeting by increasing green belt.
- Corporate Environmental responsibility (CER) proposal, in consultation with the
  concerned authority of the Local Body (Municipal Corporation/Municipality/Nagar
  Panchayat/Gram Panchayat) by clearly outlining the type of activities, which shall
  predominantly include Municipal Solid Waste Management activities like
  - a) Material Recovery Facility(MRF).
  - b) Wet Waste processing Facilities.
  - c) waste collection vehicles, etc.
- 4. Make provisions for enough number of electric vehicles charging points at each parking area, for both four wheelers and two wheelers.
- Visitors parking and Flat Owner parking should be separated.
- 6. No tree should be cut during construction phase. The existing tree should be either retained or translocat.
- 7. The 24 story Apartment with all luxury facilities are proposed in the apartment. As the apartment is coming up in Alluvial Ganga plains, proper soil testing and its vetting from Institute of repute is a must.

8. The management plans of STP, roads, basic amenities, solid waste management, first aid-medical facilities, emergency telephone numbers etc. are essentially needed

## Consideration of Terms of Reference Proposal

## AGENDA ITEM NO. 12

Proposed Grain based distillery project at Village:- Bahuari, Tehsil:- Ramnagar, District:- West Champaran, State:- Bihar, by M/s Harinagar Sugar Mills Limited [Total Proposed Capacity 100 KLPD] - Reg. Terms of Reference.

(File No.: SIA/5(g)/2032/2022, Proposal No: SIA/BR/IND2/77046/2022)

Application along with filled up Form - I, Pre-Feasibility Report and Environment Management Plan in the prescribed format was submitted to SEIAA, Bihar on 23<sup>rd</sup> May, 2022 for obtaining Terms of Reference (ToR).

The Project Proponent made a presentation on the key parameters and salient features of the project. This project is utilizing the boilers of the already existing sugar mill/molasses based distillery in the contiguous land area of the Project Proponent. The Project Proponent requested the committee to allow them to use previous baseline data (January - March, 2022) and to exempt from Public Hearing. The Committee after due diligence and discussion accepted their request. Based on the discussion, the Committee found their presentation and proposal satisfactory and acceptable, hence the Committee decided to recommend the proposed proposal for grant of Terms of Reference subject to the following standard conditions as contained in Annexure - "J".

#### **AGENDA ITEM NO. 13**

Proposed Stone Mining Project of Jalwa Quartz, Quartzite (Silica Stone) at Village:-Bishunpur, Tehsil:- Surajgarha, District:- Lakhisarai, State:- Bihar, by M/S IDIO Construction & Industries (INDIA) Limited; (Total Area: 19.80 Ha) - Reg. Terms of Reference.

(File No.: SIA/1(a)/1913/2022, Proposal No: SIA/BR/MIN/73047/2022)

Environment Consultant: M/s PARAMARSH (Servicing Environment and Development).

Application along with filled up Form - I Pre-Feasibility Report and Environment Management Plan in the prescribed format was submitted to SEIAA, Bihar on 10<sup>th</sup> March, 2022 for obtaining Terms of Reference (ToR).

Earlier in the SEAC meeting dated:- 11.04.2022 the proposal was discussed.

The Committee also noted after several reminders to Shri Raman Jee Jha ( the authorized signatory of the previous application) has not submitted the authorization in proper format and copy of the recent (latest) resolution of the Board of Directors of the said Company under reference. Shri Raman Jee Jha has not submitted the required proof to establish his authority to apply for ToR for proposal no. SIA/BR/MIN/69419/2021) on behalf of the company under reference.

In the light of the above, the Committee decided to recommend the proposed project for grant of Terms of Reference subject to the additional conditions as well as standard conditions as contained in Annexure - "K" under violation of EIA, Notification 2006 for the proposed project which was applied by Shri Awadhesh kumar vide proposal no. SIA/BR/MIN/73047/2022.

- 1. The project proponent shall be required to submit all Environmental compensation as per Hon'ble NGT order dated 27.07.2016 in the matter of OA.No.29/2016 [ M/S. I.D.I.O Construction & Industries (India) Ltd Vs Union of India & Ors)].
- 2. Assessment of ecological damage with respect to air, water, land and other environmental attributes. The collection and analysis of data shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or an environmental laboratory accredited by NABL, or a laboratory of a Council of Scientific and Industrial Research (CSIR) institution working in the field of environment.
- Preparation of EMP comprising remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefits derived due to violation.
- 4. The remediation plan and the natural and community resource augmentation plan to be prepared as an independent chapter in the EIA report by the accredited consultants.
- 5. Funds allocation for Corporate Environment Responsibility (CER) shall be made as per Ministry's O.M. No. 22-65/ 2017-IA.III dated May, 2018 for various activities therein. The details of fund allocation and activities for CER shall be incorporated in EIA/EMP report.
- 6. The Environmental Clearance will not be operational till such time the Project Proponent complies with all the statutory requirements and judgment of the

- Hon'ble NGT dated 27.07.2016 in the matter of OA.No.29/2016 [M/S. I.D.I.O Construction & Industries (India) Ltd Vs Union of India & Ors)].
- 7. The Project Proponent has to submit the certified copy of the Khatiyan of the project area showing the type and ownership thereof.

Proposed Common Bio-Medical Waste Treatment Facility at Mauza:-Ainio, Tehsil:- Fatuha, District:- Patna, State:- Bihar, by M/S S. R. Solutions; (Total Area: 1.1 Acres) - Reg. Terms of Reference.

(File No.: SIA/7(da)/2036/2022, Proposal No: SIA/BR/MIS/77565/2022)

Environment Consultant: M/s Shivalik Solid Waste Management Limited.

Application along with filled up Form - I, Pre-Feasibility Report and Environment Management Plan in the prescribed format was submitted to SEIAA, Bihar on 03<sup>rd</sup> June, 2022 for obtaining Terms of Reference (ToR).

The Project Proponent along with its environmental consultant M/s. Shivalik Solid Waste Management Limited, made a presentation on the key parameters and salient features of the project. The Committee decided to recommend the proposed proposal for grant of Terms of Reference subject to the following additional conditions as well as conditions contained in Annexure - "L".

- Show the proposed project as per Patna Master plan and fulfill the criteria of Patna Master plan, if located within the master plan area.
- 2. The proposed project must fulfill the criteria of CPCB/BSPCB and other government authority.
- 3. This term of reference is subject to any decision(s) taken by the concerned departments(s) of the state government regarding establishment and operation of common biomedical waste treatment facility in the state as per the extant policy/guidelines/requirement. Issuance of this ToR does not guarantee the grant of Environmental clearance.

# LIST OF PARTICIPANTS IN 11<sup>th</sup> MEETING OF SEAC, BIHAR HELD ON 02<sup>nd</sup> JULY 2022

SI. No.	Name	Designation	Attended on 02.07.2022
1.	Dr. Gopal Sharma	Chairman	Present
2.	Dr. Ramakar Jha	Member	Present
3.	Dr. Bibha Kumari	Member	Present
4.	Dr. Anshumali	Member	Present through video link
5.	Dr. Aditya Mohanty	Member	Absent
6.	Shri MokhtarulHaque	Member	Present
7.	Shri Ajit Samaiyar	Member	Present
8.	Shri Ranjan Kumar	Member	Present
9.	Shri S. Chandrasekar	Member Secretary	Present

Signature(s) of the Members Present

Sd/-(**Dr. Ramakar Jha**) Member Sd/-(**Dr. Bibha Kumari**) Member Sd/-(Mokhtarul Haque) Member

Sd/-(Ranjan Kumar) Member Sd/-(Ajit Samaiyar) Member Sd/-(**Dr. Anshumali**) Member

(S. Chandrasekar, IFS) Member Secretary (Dr. Gopal Sharma) Chairman

## Annexure -A (ONGC - EC)

## A. Specific Conditions

- No drilling shall be carried out in Protected Areas / forest area.
- Approach road shall be made pucca to minimize generation of suspended dust.
- 3. Total fresh water requirement shall not exceed 20 cum/day/well proposed to be met through tankers / ground water. Mobile ETP shall be installed coupled with RO to rouse the treated water in drilling system. Size of the waste shall not exceed from the hole volume of the well + volume of drill cutting expected to be generated and volume of discarded mud if any. Two feet free board may be left to accommodate rain water. There shall be separate storm water channel and rain water shall not be allowed to mix with waste water. Alternatively, if possible pit less drilling be practiced instead of above.
- No lead acid batteries shall be utilized in the project / site.

## B. Specific Conditions

## I. Statutory Compliance

- The Project Proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, if drilling is carried in Forest areas.
- 2. The project proponent shall obtain Consent to Establish/ Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
- 3. Necessary authorization required under the Hazardous and other Wastes (Management and Trans -Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhere to.
- The project proponent shall obtain and adhere to statutory clearance under the coastal Regulation Zone Notification, 2011, as applicable.

## Il. Air quality monitoring and preservation

- The National Ambient Air Quality Emission Standards issued by the Ministry vide
   G.S.R. No. 826 (E) dated 16<sup>th</sup> November, 2009 shall be complied with.
- The locations of ambient air quality monitoring stations shall be decided in consultation with the \$tate Pollution Corcro! Board (SPCB) and it shall be ensured that at least one stations each is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.
- Ambient Air Quality shall be monitored at the nearest human settlements as per the National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826 (E) dated 16th November, 2009 for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>3</sub>, CO, CH<sub>6</sub>, HC, Non-methane HC etc.
- During explorations, production, storage and handling, the fugitive emission of methane, if any, shall be monitored.
- 5 The Project Proponent also to ensure tapping / storing of the CO<sub>2</sub> generated, if any, during the process and handling.
- Approach road shall be made pucea to minimize generation of suspended dust

#### III. Water quality monitoring and preservation

- As proposed by the project proponent, Zero Liquid Discharge shall be ensured and no
  waste / treated water shall be discharged to any surface water body, see and / or on
  land. Domestic sewage shall be disposed off through septic tank / soak pil.
- The effluent discharge shall conform to the standards prescribed under the Environment (Protection) Rules, 1986, or as specified by the State Pollution Control Board while granting Consent under the Air/Water Act, whichever is more stringent.
- The company shall construct the garland drain all around the drilling site to prevent runoff of any oil contaminated and non-oil contaminated. Effluent shall be properly treated and treated wastewater shall conform to CPCB standards.
- 4. Drill cutting separated from drilling fluid shall be adequately washed and disposed in HDPE lined pit. Waste mud shall be tested for hazardous contaminates and disposed according to FIWMIT Rules. 2016. No effluent / drilling mud / drill cutting shall be discharged / disposed off into nearby surface waste bodies. The company shall comply with guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR, 546(E) dated 30th August, 2005.

## IV. Noise monitoring and preservation

- Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- The overall noised levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc on all sources of noise generation.
- The ambient noise levels should conform to the standards prescribed under E(P) A. Rules, 1986 viz. 75 dB (A) during day time and 70 dB (A) during night time.

## V. Energy Conservation measures

The energy sources for lighting purposes shall preferably be LED based.

## VI. Waste management

- Oil spillage prevention and mitigation scheme shall be prepared. In case of oil spillage / contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste (oil sludge) and spent oil shall be disposed of to the authorized recyclers.
- Oil content in the drift cuttings shall be monitored by some Anthorized agency and report shall be sent to the Ministry's Regional Office.

## VII. Water quality monitoring and preservation

- Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- Blow out preventer system shall be installed to prevent well blowouts during drilling
  operations. BOP incasures during drilling shall focus on maintaining well bore
  hydrostatic pressure by proper pre-well planning and drilling fluid logging etc.
- 3. Company shall prepare operating manual in respect of all activities, which would cover all safety & environment related issues and measure to be taken for protection. One set of environmental manual shall be made available at the drilling site / project site. Awareness shall be created at each level of the management. All the schedules and results of environmental monitoring shall be available at the project site office. Remote monitoring of site should be done.

- On completion of dtilling, the company has to plug the drilled wells safety and obtain certificate from environment safe; y angle from the concerned authority
- 5. The company shall take measures after completion of drilling process by well plugging and secured enclosures, decommissioning of rig upon abandonment of the well and drilling site shall be restored the area in original condition. In the event that no economic quality of hydrocarbon is found a full abandonment plan shall be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.
- 6. The Company shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. Possibility of using ground flare shall be explored. At the place of ground flaring, the overhead flaring stack with knockout drums shall be installed to minimize gaseous emissions during operation.
- 7. Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.
- 8. The company shall develop a contingenty plan for H<sub>2</sub>S release including all necessary aspects form evacuation to resumption of normal operations. The workers shall be provided with personal H<sub>2</sub>S detectors in locations of high risk of exposure along with self-containing breathing apparatus.
- 9. Provisions shall be made for the housing of construction fabour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical healthcare, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- 11. The company shall carried out long long term subsidence study by collecting base line data before initiating drilling operation till the project lasts. The data so collected shall be submitted six monthly to the Ministry and Regional Office.

### VIII. Corporate Environment Responsibility

(i) As proposed. Rs. 9 crores shall be allocated for Corporate Environment Responsibility (CER). The CER plan shall be implemented during the plant construction stage and before commissioning of the project.

- the company shall have a well laid down environmental policy duly approace by the board of Directors. 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/violations of the environmental / forest /wildlife norms/ conditions and / or shareholders /stake holders. The copy of the board resolution in this regaled shall be submitted to the MoEF&CC as a part of six-monthly report.
- (iii) A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
- (iv) Action plan for implementing EMP and Environmental Conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds carmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise office along with the Six Monthly Compliance Report.
- (v) Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

#### 1X Miscellaneous

- (i) The Project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- (ii) The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- (iii) The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- (iv) The project proponent shall submit six-monthly reports on the status of compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- (v) The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently ad put on the website of the company.
- (vi) The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned

- authorities, commencing the land development work and start of production operation by the project.
- (vii) Restoration of the project site shall be carried out satisfactorily and report shall be sent to the Ministry's Regional Office.
- (viii) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- (ix) The project proponent shall abide by all the commitments and recommendations made in the EtA/EMP report Commitment made during Public Hearing and also that during their presentation to the Expert appraisal Committee.
- (x) No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environments, Forests and Climate Change (MoEF&CC).
- (xi) The regional office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data/information/monitoring reports.
- (xii) The ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a time bound manner. The ministry reserves the right to stipulate additional conditions, if implementation of any of the above conditions is not found satisfactory.
- (xiii) Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (protection) Act, 1986.
- (xiv) Any appeal against this environmental clearance shall lie with the National green Tribunal, if preferred with in a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
- (xv) The above conditions will be enforced inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air & Prevention & Control of pollution) Act, 1981, the Environment (Protection) Act, 1986, the Hazardous Waste (Management, handing and Transboundary Movement) Rules, 2016 and the public Liability insurances Act, 1991 read with subsequent amendments therein

(xvi) This issues with the approval of the c ompetent authority.

## Annexure - B (KK Medical College - EC)

## I. Statutory compliance:

- The Project Proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work.

  All the construction shall be done in accordance with the local building byelaws.
- The Project Proponent will obtain CTE from the BSPCB before preparing site for construction: if applicable and CTO before giving occupancy.
- 3. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment, etc. as per National Building Code including protection measures from lightening, etc.
- All directions of the Airport Authority, Director of Explosives and Fire Department, etc. shall be complied with.
- The Project Proponent shall obtain Consent to Establish / Operate under the
  provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water
  (Prevention & Control of Pollution) Act, 1974 from the Bihar State Pollution Control
  Board.
- 6 The Project Proponent shall obtain the necessary permission for drawi of ground water / surface water required for the project from the competent authority.
- A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.
- 8. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department shall be obtained, as applicable, by Project Proponents from the respective competent authorities.
- The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
- The Project Proponent shall follow the ECBC / ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power, Gol. strictly.

- 11. The facilities provided for collection, segregation, handling, on site storage & processing of solid waste such as chute system for multi-storey buildings, wet & dry bins, collection center & mechanical composter, etc. shall be properly maintained. The collected solid waste shall be segregated at site. The recyclable solid waste shall be sold out to the authorized vendors / recyclers for which a written tic-up must be done with the authorized vendors / recyclers.
- Hazardous waste / E-waste should be disposed off as per Rules applicable and with the necessary approval of the Bihar State Pollution Control Board.
- Solar power plant or other solar energy related equipment's shall be operated and maintained properly.
- 14. Provisions shall be made for the integration of solar water heating system.
- 15. Environmental Clearance conditions applicable for construction and operation phase which are in the interest of public at large must be displayed at prominent place which can be easily accessible to public along with address and contact number of authorities to whom violation of EC conditions can be reported.
- 16. Project site shall be adequately barricaded before the start of construction activity by erecting suitable windscreen upto. 1/3<sup>rd</sup> of the building height or 10 meters height whichever is more to prevent dispersion of dust particulate (fugitive emission) matter from the construction site.
- 17. Construction of appropriate civil structure and creation of other facilities shall be undertaken to provide benefit of the person suffering from disability in accordance with Hon'ble Supreme Court of India order dated 15th December 2017 in Writ Petition (Civil) 292 of 2006 with WP (Civil) 997 of 2013 (Disabled Rights Grout & Ant. Vs Union of India &Ors)

#### Il. Air quality monitoring and preservation

1. 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 Environmental Clearance shall be complied with.

- 2. Project site shall be adequately harricaded before the start of construction activity by erecting suitable windscreen upto 1/3<sup>rd</sup> of the building height or upto 10 meters height whichever is more to prevent dispersion of particulate matter (fugitive emission) from the construction site. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. Plastic / tarpaulin sheet covers shall be provided for vehicles bringing all toose construction material e.g. sand, cement, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.
- A Management Plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.
- 4. Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rutes made under the Environment (Protection) Act, 1986 The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets.
- Dust, smoke& other air pollution prevention measures shall be provided for the building as well as the site.
- All loose construction material e.g sand, soil, coment, stored on site shall be covered adequately so as to prevent dust pollution.
- Wet jet shall be provided for grinding and stone cutting.
- Unpaved surfaces and loose soit shall be adequately sprinkled with water to suppress
  dust.
- All construction and demolition debris shall be stored at the site (and not dumped on the toads 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.
- 10. The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection), Act 1986 prescribed for air and noise emission standards.
- 11. The gaseous emissions from DG set shall be dispersed through adequate stock height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to

- mitigate the noise pollution. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB)norms.
- For indoor air quality the ventilation provisions as per National Building Code of India shall be implemented.

#### III. Water quality monitoring and preservation:

- 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 wet land 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.
- Total fresh water use shall not exceed the proposed requirement as provided in the project details
- 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, SEIAA/ Regional Office, MoEF&CC along with six monthly Monitoring reports.
- 5. A certificate shall be obtained from the 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 other users.
- 6. At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape, etc. would be considered as pervious surface.
- 7. (nstallation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing, etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning, etc. shall be done.
- 8 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.

- Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
- 10. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- 11. The local byc-law provisions on rain water harvesting should be followed. If local byelaw provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Modei Building Byelaws, 2016. Rainwater harvesting recharge puts/storage tanks shall be provided for ground water recharging as per the CGWB norms.
- 12. A rain water harvesting plan needs to be designed where the recharge bores of minimum one recharge bore per 5,000 square meters of built-up area and storage capacity of minimum one day of total fresh water requirement shall be provided. In areas where ground water recharge is not feasible, the rain water should be harvested and stored for reuse. The ground water shall not be withdrawn without approval from the Competent Authority.
- All recharge should be limited to shallow aquifer.
- 14. No ground water shall be used during construction phase of the project.
- 15. 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.
- 16. Sewage shall be treated in the STP with tertiary treatment. The treated effluent from STP shall be recycled/re-used for flushing. AC make up water and gardening. As proposed, no treated water shall be disposed into municipal drain
- No sewage or untreated effluent water would be discharged through storm water drains
- 18. Onsite sewage treatment of capacity of treating 100% waste water to be installed. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Treated waste water shall be reused on site for landscape, flushing, cooling tower, and other end-uses. Excess treated water shall be discharged asper statutory norms notified by Ministry of Environment, Forest and Climate Change. Natural treatment systems shall be promoted.

- Periodical monitoring of water quality of treated sewage shall be conducted.
   Necessary measures should be made to mitigate the odour problem from STP.
- 20 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.
- 21. Separate drainage system shall be developed for storm water so that end point discharge to nearest nallah / river is ensured to avoid water logging without any increase in the pollution load in receiving system.
- Possibilities need to be explored to use STP waste water during construction phase.
  Presh water shall be used only after exhausting the possibility of obtaining STP waste water located in municipal jurisdiction.

## IV. Noise monitoring and prevention:

- Ambient noise levels shall conform to residential area atlence zone both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. 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.
- Acoustic enclosures for DG sets, noise barriers for ground-run bays, car plugs for
  operating personnel shall be implemented as mitigation measures for noise impact
  due to ground sources.

#### V. Energy Conservation measures:

- 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 Energy Conservation Building Code (ECBC) specifications.
- Energy conservation measures like installation of CFLs/ LED for the lighting the area
  outside the building should be integral part of the project design and should be in
  place before project commissioning.
- Solar, wind or other Renewable Energy shall be installed to meet electricity
  generation equivalent to 1% of the demand load or as per the state level/ local
  building bye-law's requirement, whichever is higher.
- 6. 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. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

## VI. Waste Management:

- 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 (M.S.W.) generated from project shall be obtained.
- Proper composting / vermi-composting of municipal and biodegradable solid wastes shall be carried out. All municipal solid wastes shall be segregated, collected, transported, treated and disposed as per provisions of the Solid Wastes Management, 2016 (As amended).
- 3 All the top soil excavated during construction activities shall be stored for use in horticulture/landscape development within the project site.
- 4. Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- 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 wet garbage and inert materials.

- Organic waste compost/ Vermiculture pit/ Organic Waste Converter within the premises with a minimum capacity of 0.3 kg/person/day must be installed.
- All non-biodegradable waste shall be handed over to authorized recyclers for which a
  written tie up must be done with the authorized recyclers.
- Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the Bihar State Pollution Control Board.
- 9. 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.
- 10. 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.
- Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.
- (2. Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.

#### VII. Green Cover:

- 1. No tree should be felled unless exigencies demand. Wherever absolutely necessary, tree translocation shall be done with prior permission from the concerned regulatory authority. Old trees should be retained/translocated based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured in the ratio of species cut to species plantes.
- 23,094.49 sqin, of the total plot area shall be kept under green belt cover within the project site.
- 3. All the efforts shall be made not to fell any tree however if any tree need to be removed necessarily, it may be translocated with prior permission from concerned

local Authority. In case of felling, plantations to be ensured in the ratio of species out / removed to species planted. Area for green belt development shall be provided as per the details provided in the Project document.

4. Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and re-applied during plantation of the proposed vegetation on site.

### VIII. Transport:

- A comprehensive mobility plan, as per MoUO 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.
- a) Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
- b) Traffic coloning measures.
- c) Proper design of entry and exit points.
- d) Parking norms as per local regulation.
- c) Proper signages.
- 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.
- 3. 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 05 kms 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 be carried out by the project or other agencies in this 05 kms radius of the site in different scenarios of space and time 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.

#### IX. Human health issues:

- Ail workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debus or working in any area with dust pollution shall be provided with dust mask.
- For indoor air quality the ventilation provisions as per National Building Code of India.
- Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- 4. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile totlets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- 5. Occupational health surveillance of the workers shall be done on a regular basis.
- A First Aid Room shall be provided in the project both during construction and operations of the project.

## X. Corporate Environment Responsibility:

- The Project Proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1<sup>st</sup> May 2018, as applicable, regarding Corporate Environment Responsibility
- 2. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and halances 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 norms / conditions and / or shareholders / stake holders. The copy of the board tesolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- A separate Environmental cell both at the project and company head quarter level,
  with qualified personnel shall be set up under the control of senior Executive, who
  will directly the head of the organization.

4. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall 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 SEIAA/ Ministry. Regional Office along with the Six-Monthly Compliance Report.

#### XI. Additional Conditions:-

- Provide Waste water drain, rainwater drain and water supply pipe separately. Nothing should be drained outside the campus through underground pipes and nothing should be pumped to groundwater. All the sewage drains shall be covered.
- Provide Safety measures (Fire, disaster, flood, etc.), /medical facilities and arrangement for physically challenged persons.

#### XII. Miscellaneous:

- 1. The Project Proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded Environmental Clearance and the details of MoEF&CC/SEIAA, Bihar website where it is displayed.
- 2. The copies of the Environmental Clearance shall be submitted by the Project Proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt
- 3. All utility lines (electricity, telephone, cable, water supply, sewage, drainage, etc. shall be laid below ground level. Ducts shall be provided along and across the roads to lay the utility lines. Major trunk (water/sewerage) lines are to be laid along the utility corridor.
- 4. Rest room facilities shall be provided for service population.
- 5. The Project Proponent shall upload the status of compliance of the stipulated Environmental Clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.

- The Project Proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during their presentation to the State Expert Appraisal Committee.
- The Project Proponent shall submit six-monthly reports on the status of the
  compliance of the stipulated Environmental Conditions on the website of the ministry
  of Environment, Forest and Climate Change at environment clearance portal.
- The Project Proponent shall submit the environmental statement for each financial year in Form-V to the Bihar State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- 9. The Project Proponent shall inform the SEIAA, Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
- 10. The project authorities must strictly adhere to the stipulations made by the Bihar State Pollution Control Board and the State Government.
- No further expansion or modifications in the plant shall be carried out without prior approval of the SEIAA, Bihar
- 12. Concealing factual data or submission of false/fabricated data may result in revocation of this Environmental Clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- 13. The Environmental Clearance granted on the hasis of submitted layout plan of the proposed construction of buildings/establishments of industries shall be provisional for a period of one year or till its approved by the competent authority whichever is earlier. Should there be any deviation / change in the layout plan (as contained in the project proposal on which Environmental Clearance is granted), the Project Proponent shall furnish a copy along with a request to SE)AA, Bihar to make necessary correction/revision in the Environmental Clearance accordingly. Any failure on part of the Project Proponent in doing so will be treated as a violation of Environmental Clearance condition.

- The SELAA may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- 15. The SEIAA reserves the right to stipulate additional conditions if found necessary which shall be implemented in a time bound manner.
- 16. The Regional Office of the MoEF&CU, Gol / SEIAA shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer(s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- 17. Project Proponent shall erect a signboard on his project site and display information regarding name of the project, Environmental Clearance letter No., date and validity period of Environmental Clearance, and Environmental Clearance conditions which affect general public at large along with name of authority to which violation of Environmental Clearance conditions can be reported.
- 18. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986. Hazardous and Other Wastes (Management and transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- Environmental Clearance shall remain valid for a maximum period of 10 years or completion of project whichever is earlier.
- 20. Any appeal against this Environmental Clearance shall lie with the Hon'ble National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

#### Annexure - C (Crystal Apex)

### \$tatutory compliance:

- The Project Proponent shall obtain all necessary clearance/ permission from all
  relevant agencies including town planning authority before commencement of work.
   All the construction shall be done in accordance with the local building byclaws.
- The Project Proponent will obtain CTE from the BSPCB before preparing site for construction; if applicable and CTO before giving occupancy.
- 3. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment, etc. as per National Building Code including protection measures from lightening, etc.
- All directions of the Airport Authority. Director of Explosives and Fire Department,
   etc. shall be complied with.
- The Project Proponent shall obtain Consent to Establish / Operate under the
  provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water
  (Prevention & Control of Pollution) Act, 1974 from the Bihar State Pollution Control
  Board.
- The Project Proponent shall obtain the necessary permission for drawl of ground water / surface water required for the project from the competent authority.
- A certificate of adequacy of available power from the agency supplying power to the
  project along with the load allowed for the project should be obtained.
- All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department shall be obtained, as applicable, by Project Proponents from the respective competent authorities.
- The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
- The Project Proponent shall follow the ECBC / ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power, Gol. strictly.

- 11. The facilities provided for collection, segregation, handling, on site storage & processing of solid waste such as chute system for multi-storey buildings, wet & dry bins, collection center & mechanical composter, etc. shall be properly maintained. The collected solid waste shall be segregated at site. The recyclable solid waste shall be sold out to the authorized vendors / recyclers for which a written tie-up must be done with the authorized vendors / recyclers.
- Hazardous waste / E-waste should be disposed off as per Rules applicable and with the necessary approval of the Bihar State Pollution Control Board
- Solar power plant or other solar energy related equipment's shall be operated and maintained properly.
- 14. Provisions shall be made for the integration of solar water heating system.
- 15. Environmental Clearance conditions applicable for construction and operation phase which are in the interest of public at large must be displayed at prominent place which can be easily accessible to public along with address and contact number of authorities to whom violation of EC conditions can be reported.
- 16. Project site shall be adequately barricaded before the start of construction activity by erecting suitable windscreen upto. 1/3<sup>rd</sup> of the building height or 10 meters height whichever is more to prevent dispersion of dust particulate (fugitive emission) matter from the construction site.
- 17. Construction of appropriate civil structure and creation of other facilities shall be undertaken to provide benefit of the person suffering from disability in accordance with Hon'ble Supreme Court of India order dated 15th December 2017 in Writ Petition (Civil) 292 of 2006 with WP (Civil) 997 of 2013 (Disabled Rights Grout &Anr. Vs Umon of India &Ors).

# U. Air quality monitoring and preservation

 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 Environmental Clearance shall be complied with.

- 2. Project site shall be adequately barricaded before the start of construction activity by erecting suitable windscreen upto 1/3<sup>rd</sup> of the building height or upto 10 meters height whichever is more to prevent dispersion of particulate matter (fugitive emission) from the construction site. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. Plastic / tarpaulin sheet covers shall be provided for vehicles bringing all loose construction material e.g sand, cement, murram and other construction materials prope to causing dust pollution at the site as well as taking out debris from the site.
- A Management Plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.
- 4. Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets.
- Dust, smoke& other air pollution prevention measures shall be provided for the building as well as the site.
- All loose construction material e.g sand, soil, cement, stored on site shall be covered
  adequately so as to prevent dust pollution.
- 7. Wet jet shall be provided for grinding and stone cutting.
- Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress
  dust.
- 9. 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.
- 10. The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection), Act 1986 prescribed for air and noise emission standards.
- 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. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB)norms.
- For indoor air quality the ventilation provisions as per National Building Code of India shall be implemented.

# III. Water quality monitoring and preservation:

- 1. 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 wet land 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.
- 2 Buildings shall be designed to follow the natural topography as much as possible.
  Minimum cutting and filling should be done.
- Total fresh water use shall not exceed the proposed requirement as provided in the project details.
- 4. 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, SEIAA/ Regional Office, MoEF&CC along with six monthly Monitoring reports.
- 5. A certificate shall be obtained from the 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 other users.
- 6. At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape, etc. would be considered as pervious surface.
- 7. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing, etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning, etc. shall be done.
- 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.

- Separation of grey and black water should be done by the use of dual plumbing system in case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done
- Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- 11. The local bye-law provisions on rain water harvesting should be followed. If local byelaw provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rainwater harvesting recharge pits/storage tanks shall be provided for ground water recharging as per the CGWB norms.
- 12. A rain water harvesting plan needs to be designed where the recharge bores of minimum one recharge bore per 5,000 square meters of built-up area and storage capacity of minimum one day of total fresh water requirement shall be provided. In areas where ground water recharge is not feasible, the rain water should be harvested and stored for reuse. The ground water shall not be withdrawn without approval from the Competent Authority.
- All recharge should be limited to shailow aquifer.
- 14. No ground water shall be used during construction phase of the project
- 15. 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.
- 16. Sewage shall be treated in the STP with tertiary treatment. The treated effluent from STP shall be recycled/re-used for flushing. AC make up water and gardening. As proposed, no treated water shall be disposed into municipal drain.
- No sewage or untreated effluent water would be discharged through storm water drains.
- 18. Onsite sewage treatment of capacity of treating 100% waste water to be installed. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Treated waste water shall be reused on site for landscape, flushing, cooling tower, and other end-uses. Excess treated water shall be discharged asper statutory norms notified by Ministry of Environment, Forest and Climate Change. Natural treatment systems shall be promoted.

- Periodical monitoring of water quality of treated sewage shall be conducted.
   Necessary measures should be made to mitigate the odour problem from STP.
- 20. 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.
- 21. Separate drainage system shall be developed for storm water so that end point discharge to nearest caliah / river is ensured to avoid water logging without any increase in the pollution load in receiving system.
- 22. Possibilities need to be explored to use STP waste water during construction phase.
  Presh water shall be used only after exhausting the possibility of obtaining STP waste water located in municipal jurisdiction.

# IV. Noise monitoring and prevention:

- 1. Ambient noise levels shall conform to residential area silence zone both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. 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
- Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for
  operating personnel shall be implemented as mitigation measures for noise impact
  due to ground sources.

# V. Energy Conservation measures:

- 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.
- 3 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 Energy Conservation Building Code (ECBC) specifications.
- Energy conservation measures like installation of CFLs/ LED for the lighting the area
  outside the building should be integral part of the project design and should be in
  place before project commissioning.
- Solar, wind or other Renewable Energy shall be installed to meet electricity
  generation equivalent to 1% of the demand load or as per the state level/ local
  building bye-low's requirement, whichever is higher.
- 6. 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. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

### VI. Waste Management:

- A certificate from the competent authority handling municipal solid wastes,
  undicating the existing civic capacities of handling and their adequacy to cater to the
  Municipal Solid Waste (M.S.W.) generated from project shall be obtained.
- Proper composting / vermi-composting of municipal and biodegradable solid wastes shall be carried out. All municipal solid wastes shall be segregated, collected, transported, treated and disposed as per provisions of the Solid Wastes Management, 2016 (As amended).
- All the top soil excavated during construction activities shall be stored for use in horticulture/landscape development within the project site.
- 4. Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- 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 wet garbage and inert materials.

- Organic waste compost/ Vermiculture pit/ Organic Waste Converter within the premises with a minimum capacity of 0.3 kg/person/day must be installed.
- All non-biodegradable waste shall be handed over to authorized recyclers for which a
  written tie up must be done with the authorized recyclers.
- Any hazardous waste generated during construction phase, shall be disposed off as
  per applicable rules and norms with necessary approvals of the Bihar State Pollution
  Control Board.
- 9. 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, hellow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials.
- 10. 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 27<sup>th</sup> August, 2003 and 25<sup>th</sup> January, 2016, Ready mixed concrete must be used in building construction.
- Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.
- Used CFLs and TFLs should be properly collected and disposed off/sent for recycling
  as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury
  contamination.

#### VII. Green Cover:

- 1. No tree should be felled unless exigencies demand. Wherever absolutely necessary, tree translocation shall be done with prior permission from the concerned regulatory authority. Old trees should be retained/translocated based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured in the ratio of species cut to species planted.
- 1,699.53 sqm. (18.4%) of the total plot area shall be kept under green belt cover within the project site
- All the efforts shall be made not to fell any tree however if any tree need to be removed necessarily, it may be translocated with prior permission from concerned

local Authority. In case of felling, plantations to be ensured in the ratio of species out / removed to species planted. Area for green bolt development shall be provided as per the details provided in the Project document.

4. Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and re-applied during plantation of the proposed vegetation on site.

### VIII. Transport:

- A comprehensive mobility plan, as per MoUD best practices guidelines (IJRDPFI), 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.
- a) Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
- b) Traffic calming measures
- Proper design of entry and exit points.
- d) Parking norms as per local regulation.
- e) Proper signages.
- 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.
- 3. 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 05 kms 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 be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time 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.

## IX. Human bealth issues:

- 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.
- For indoor air quality the ventilation provisions as per National Building Code of India
- Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- 4. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crecke etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- Occupational health surveillance of the workers shall be done on a regular basis.
- A Pirst Aid Room shall be provided in the project both during construction and operations of the project.

# X. Corporate Environment Responsibility:

- The Project Proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1" May 2018, as applicable, regarding Corporate Environment Responsibility.
- 2. The company shall have a well laid down environmental policy duly approved by the Board of Directors. 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 norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- 3 A separate Environmental cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly the head of the organization.
- Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall 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 SEIAA/Ministry, Regional Office along with the Six-Monthly Compliance Report.

#### XL Additional Conditions:-

- Provide Waste water drain, rainwater drain and water supply pipe separately. Nothing should be drained outside the campus through underground pipes and nothing should be pumped to groundwater. All the sewage drains shall be covered.
- Provide Safety measures (Fire, disaster, flood, etc.), /medical facilities and arrangement for physically challenged persons.

#### XII. Miscellaneous:

- I. The Project Proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded Environmental Clearance and the details of MoEF&CC/SEIAA, Bihar website where it is displayed
- 2. The copies of the Environmental Clearance shall be submitted by the Project Proponents to the Heads of local bodies. Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- 3. All utility lines (electricity, telephone, cable, water supply, sewage, drainage, etc. shall be taid below ground level. Duets shall be provided along and across the roads to lay the utility lines. Major trunk (water/sewerage) lines are to be laid along the utility corridor.
- 4. Rest room facilities shall be provided for service population.
- The Project Proponent shall upload the status of compliance of the stipulated Environmental Clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.

- The Project Proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during their presentation to the State Expert Appraisal Committee.
- 7. The Project Proponent shall submit six-monthly reports on the status of the compliance of the stipulated Environmental Conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- 8. The Project Proponent shall submit the environmental statement for each financial year in Form-V to the Bihar State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- 9. The Project Proponent shall inform the SEIAA. Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
- The project authorities must strictly adhere to the stipulations made by the Bihar State Pollution Control Board and the State Government.
- No further expansion or modifications in the plant shall be carried out without prior approval of the SEIAA, Bihar.
- Concealing factual data or submission of false/fabricated data may result in revocation of this Environmental Clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- 13. The Environmental Clearance granted on the basis of submitted layout plan of the proposed construction of buildings/establishments of industries shall be provisional for a period of one year or till its approved by the competent authority whichever is earlier. Should there be any deviation / change in the layout plan (as contained in the project proposal on which Environmental Clearance is granted), the Project Proponent shall furnish a copy along with a request to SEIAA, Bihar to make necessary correction/revision in the Environmental Clearance accordingly. Any failure on part of the Project Proponent in doing so will be treated as a violation of Environmental Clearance condition.

- The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- 15. The SEIAA reserves the right to stipulate additional conditions if found necessary which shall be implemented in a time bound manner.
- 16. The Regional Office of the MoEF&CC, Gol / SEJAA shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer(s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- 17. Project Proponent shall erect a signboard on his project site and display information regarding name of the project, Environmental Clearance letter No., date and validity period of Environmental Clearance, and Environmental Clearance conditions which affect general public at large along with name of authority to which violation of Environmental Clearance conditions can be reported.
- 18. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ole Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- Environmental Clearance shall remain valid for a maximum period of 10 years or completion of project whichever is earlier.
- 20 Any appeal against this Environmental Clearance shall lie with the Hon'ble National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

# Annexure - B- (Formaldehyde Unit - EC)

# 1. Statutory Compliance

- The Project Proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project, if applicable.
- The project proponent shall obtain clearance from the National Board for Wildlife,
  if applicable
- 3. The Project Proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan/Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the sixmonthly compliance report. (In case of the presence of schedule- species in the study area) if applicable.
- 4. The project proponent shall obtain Consent to Establish/ Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
- 5 The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.
- 6. The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act, (MVA) 1989.

# II. Air quality monitoring and preservation.

7. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 and connected to SPCB and CPCB online

servers and calibrate these system from time to according to equipment supplier specification through labs recognized under Environment (Protection) Act. 1986 or NABL accredited laboratories.

- The Project Proponent shall monitor fugitive emission in the plant premises at least once in every quarter through labs recognized under Environment (Protection) Act, 1986.
- 9. The project proponent shall install system to carryout Ambient Air Quality monitoring for common / criterion parameters relevant to the main pollutions released (e.g. PM<sub>10</sub> and PM<sub>2.5</sub> in reference to PM emission, and SO<sub>2</sub> and NO<sub>3</sub> in reference to SO<sub>2</sub> and NO<sub>3</sub> emissions) within and outside the plant area at least at locations (one within and three outside the plant area at an angle of 120° each), tovering upwind and downwind directions.
- To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/ or the NAAQS. Sulphur content should not exceed 0.5% in the coal for use in coal fired boilers to control particulate emissions within permissible limits (as applicable). The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- Storage of raw materials, coal etc shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(B) dated 21<sup>st</sup> July, 2010 and amended from time to time shall followed.
- 13. The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be complied with.

#### III. Water quality monitoring and Preservation.

The Project Proponent shall provide online continuous monitoring of effluent, the
unit shall install web camera with pight vision capability and flow meters in the
channel/drain carrying effluent within the premises (applicable in case of the
project achieving ZLD).

- As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises (applicable in case of the project achieving the ZLD).
- The effluent discharge shall conform to the standards presembed under the Environment (Protection) Rules, 1986, or as specified by the State Pollution Control Board while granting Consent under the Ari/Water Act, whichever is more stringent.
- Total fresh water requirement shall not exceed the proposed quantity or as specified by the Committee, Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard.
- Process effluent/any waste water shall not be allowed to mix with storm water.
   The storm water from the premises shall be collected and discharged through a separate conveyance system.
- 6. The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and utilize the same for different industrial operations within the plant.
- 7. The DG sets shall be equipped with suitable pollution control devices and the adequate stack beight so that the emissions are in conformity with the extant regulations and guidelines in this regard.

# IV. Noise monitoring and prevention

- Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation.
- The ambient noise levels should conform to the standards prescribed under E(P)A.
   Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.

# V. Energy conservation measures

The energy sources for lighting purposes shall preferable be LED based.

### Vl. Waste management

- Hazardous chemicals shall be stored in tanks, farms, drums, carboys etc. Flarme arresters shall be provided on tank farm and the solvent transfer through pumps.
- Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.
- The company shall undertake waste minimization measures as below:-
  - Metering and control of quantities of active ingredients to minimize waste.
  - Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
  - c. Use of automated filling to minimize spillage.
  - Use of Close Feed system into batch reactors.
  - Venting equipment through vapour recovery system.
  - f Use of high pressure hoses for equipment clearing to reduce wastewater generation.

#### VII. Green Belt

The green best of 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.

# VIII. Safety, Public hearing and Human health issues

- Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.

- The PP shall provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
- 4. Training shall imparted to all employees on safety and health aspects of chemic als handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.
- 5. Provision shall be made for the housing of construction labour within the site with all, necessary infrastructure and facilities such as firel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- 6 Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- 7 There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside op public places.

# IX. Corporate Environment Responsibility

- The project proponent shall comply with the provisions contained in this
  Ministry's OM vide F.No 22-65/2017.ffl dated-1<sup>st</sup> May 2018, as applicable,
  regarding corporate Environment Responsibility.
- 2. The Company shall have a well laid down environmental policy duly approve by the Board of Directors. 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 norms / conditions and / or shareholders /stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.

- A separate Environmental Cell both at the project and company head quarter level,
  with qualified personnel shall be set up under the control of senior Executive, who
  will directly to the head of the organization.
- 4. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall 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 shall be reported to the Ministry/Regional Office along with the Six monthly Compliance Report.
- Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

#### X. Miscellancous

- The Project Proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vemacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- 2. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- The project Proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis
- 4. The project proponent shall monitor the criteria pollutants level namely; PM<sub>10</sub>, 5O<sub>2</sub>, NO<sub>x</sub> (ambient levels as well as stack emissions) or critical parameters, indicated for the project and display the same at a convenient location for disclosure to the public and put on the website of the company.

- The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the Ministry of Environment, Forest and Climate Change at environment clearance portal.
- 6. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned Sate Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- 7. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
- The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- The project proportent shall abide by all the commitments and recommendations made in the EIA/EMP commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- Concealing focused data a submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- 13. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- 14. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. This project authorities should extend full cooperation to the officer (s)

- of the Regional Office by furnishing the requisite data/ information / monitoring reports.
- 15. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- Environmental Clearance shall remain valid for a maximum period of 10 years or completion of project whichever is earlier.
- Any appeal against the EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

# Annexure -C (Lotus Plaza - EC)

# I. Statutory compliance:

- The Project Proponent shall obtain all necessary elegrances permission from all relevant agencies including town planning authority before commencement of work.
   All the construction shall be done in accordance with the local building byelaws.
- The Project Proponent will obtain CTE from the BSPCB before preparing site for construction, if applicable and CTO before giving occupancy.
- The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment, etc. as per National Building Code including protection measures from lightening, etc.
- All directions of the Airport Authority, Director of Explosives and Fire Department,
   etc. shall be complied with.
- The Project Proponent shall obtain Consent to Establish / Operate under the
  provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water
  (Prevention & Control of Pollution) Act, 1974 from the Bihar State Pollution Control
  Board.
- The Project Proponent shall obtain the necessary permission for draw! of ground water / surface water required for the project from the competent authority.
- A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.
- 8 All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department. Civil Aviation Department shall be obtained, as applicable, by Project Proponents from the respective competent authorities
- The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
- The Project Proponent shall follow the ECBC / ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power, Gol. strictly.

- 11. The facilities provided for collection, segregation, handling, on site storage & processing of solid waste such as chute system for multi-storey buildings, wet & dry bins, collection center & mechanical composter, etc. shall be properly maintained. The collected solid waste shall be segregated at site. The recyclable solid waste shall be sold out to the authorized vendors / recyclers for which a written tie-up must be done with the authorized vendors / recyclers.
- Hazardous waste / E-waste should be disposed off as per Rules applicable and with the necessary approval of the Bihar State Pollution Control Board.
- Solar power plant or other solar energy related equipment's shall be operated and maintained properly.
- 14 Provisions shall be made for the integration of solar water heating system.
- 15. Environmental Clearance conditions applicable for construction and operation phase which are in the interest of public at large must be displayed at prominent place which can be easily accessible to public along with address and contact number of authorities to whom violation of EC conditions can be reported.
- 16. Project site shall be adequately barricaded before the start of construction activity by erecting suitable windscreen upto. 1/3<sup>rd</sup> of the building height or 10 meters height whichever is more to prevent dispersion of dust particulate (fugitive emission) matter from the construction site.
- 17. Construction of appropriate civil structure and creation of other facilities shall be undertaken to provide benefit of the person suffering from disability in accordance with Hon'ble Supreme Court of India order dated 15th December 2017 in Writ Petition (Civil) 292 of 2006 with WP (Civil) 997 of 2013 (Disabled Rights Grout &Anr. Vs Union of India &Ors).

# Air quality monitoring and preservation

Notification GSR 94(E) dated 25.01 2018 of MoEF&CC regarding Mandatory
 Implementation of Dust Mitigation Measures for Construction and Demo. tion
 Activities for projects requiring Environmental Clearance shall be complied with.

- 2. Project site shall be adequately barricaded before the start of construction activity by erecting suitable windscreen upto 1/3<sup>rd</sup> of the building height or upto 10 meters height whichever is more to prevent dispersion of particulate matter (fugitive emission) from the construction site. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site Plastic / tarpaulth sheet covers shall be provided for vehicles bringing all loose construction material e.g sand, cement, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.
- A Management Plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.
- 4. Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets.
- Dust, smoke& other air pollution prevention measures shall be provided for the building as well as the site.
- All lonse construction material e.g sand, soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.
- 7. Wet jet shall be provided for grinding and stone cutting.
- Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress
  dust.
- All construction and demolition debris shall be stured 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.
- 10. The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection), Act 1986 prescribed for air and noise emission standards.
- 11. 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. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB)norms.
- For indoor air quality the ventilation provisions as per National Building Code of India shall be implemented.

# III. Water quality monitoring and preservation:

- 1. 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 wet land 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.
- Total fresh water use shall not exceed the proposed requirement as provided in the project details.
- 4. 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 SEIAA/ Regional Office, MoEF&CC along with six monthly Monitoring reports
- 5. A certificate shall be obtained from the 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 other users.
- 6. At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape, etc. would be considered as pervious surface.
- Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and battling, etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning, etc. shall be done.
- Use of water saving devices/ fixtures (viz. low flow flow flow flow flow faucets tap actators, etc.) for water conservation shall be incorporated in the building plan.

- Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done
- 10. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- 11. The local bye-law provisions on rain water harvesting should be followed. If local byelaw provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rainwater harvesting recharge pits/storage tanks shall be provided for ground water recharging as per the CGWB norms.
- 12. A rain water harvesting plan needs to be designed where the recharge bores of minimum one recharge bore per 5,000 square meters of built-up area and storage capacity of minimum one day of total fresh water requirement shall be provided. In areas where ground water recharge is not feasible, the rain water should be harvested and stored for reuse. The ground water shall not be withdrawn without approval from the Competent Authority.
- 13. All recharge should be limited to shallow aquifer.
- 14. No ground water shall be used during construction phase of the project.
- 15. 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.
- 16. Sewage shall be treated in the STP with tertiary treatment. The treated effluent from STP shall be recycled/re-used for flushing, AC make up water and gardening. As proposed, no treated water shall be disposed into municipal drain.
- No sewage or untreated eiffuent water would be discharged through storm water drains.
- 18. Onsite sewage treatment of capacity of treating 100% waste water to be installed. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Treated waste water shall be reused on site for landscape, flushing, cooling tower, and other end-uses. Excess treated water shall be discharged asper statutory norms notified by Ministry of Environment, Forest and Climate Change. Natural treatment systems shall be promoted.

- Perindical monitoring of water quality of treated sewage shall be conducted.
   Necessary measures should be made to mitigate the odour problem from STP.
- 20. Studge 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.
- 21. Separate drainage system shall be developed for storm water so that end point discharge to nearest nallah / river is ensured to avoid water logging without any increase in the pollution load in receiving system.
- 22. Possibilities need to be explored to use STP waste water during construction phase. Fresh water shall be used only after exhausting the possibility of obtaining STP waste water located in municipal jurisduction.

### IV. Noise monitoring and prevention:

- Ambient noise levels shall conform to residential area silence zone both during day
  and night as per Noise Pollution (Control and Regulation) Rules, 2000, 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.
- Acoustic enclosures for DG sets, noise barriers for ground-run bays, car plugs for
  operating personnel shall be implemented as mitigation measures for noise impact
  due to ground sources.

### V. Rnergy Conservation measures:

- 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.
- 3. 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 Energy Conservation Building Code (ECBC) specifications.
- Energy conservation measures like installation of CFLs/ LED for the lighting the area
  outside the building should be integral part of the project design and should be in
  place before project commissioning.
- Solar, wind or other Renewable Energy shall be installed to meet electricity
  generation equivalent to 1% of the demand load or as per the state (evel/ local
  building bye-low's requirement, whichever is higher.
- 6. 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. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

# VI. Waste Management:

- A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to eater to the Municipal Solid Waste (M.S.W.) generated from project shall be obtained.
- Proper composting / vermi-composting of municipa, and biodegradable solid wastes shall be carried out All municipal solid wastes shall be segregated, collected, transported, treated and disposed as per provisions of the Solid Wastes Management, 2016 (As amended).
- All the top soil excavated during construction activities shall be stored for use in horticulture/landscape development within the project site.
- 4. Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- 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 wet garbage and inert materials

- Organic waste compost/ Vermiculture pit/ Organic Waste Converter within the premises with a minimum capacity of 0.3 kg/person/day must be installed.
- All non-biodegradable waste shall be handed over to authorized recyclers for which a
  written tie up must be done with the authorized recyclers.
- Any hazardous waste generated during construction phase, shall be disposed off as
  per applicable rules and norms with necessary approvals of the Bihar State Pollution
  Control Board.
- 9. 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.
- 10. 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
- Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.
- 12. Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.

#### VII. Green Cover:

- No tree should be felled unless exigencies demand. Wherever absolutely necessary,
  tree translocation shall be done with prior permission from the concerned regulatory
  authority. Old trees should be retained/translocated based on girth and age regulations
  as may be prescribed by the Forest Department. Plantations to be ensured in the ratio
  of species cut to species planted.
- 1,699.53 sqm. (18.4%) of the total plot area shall be kept under green helt cover within the project site.
- All the efforts shall be made not to fell any tree however if any tree need to be removed necessarily, it may be translocated with prior permission from concerned.

local Authority. In case of felling, plantations to be ensured in the ratio of species out / removed to species planted. Area for green belt development shall be provided as per the details provided in the Project document.

4. Topsuil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and re-applied during plantation of the proposed vegetation on site.

# VIII, Transport:

- A comprehensive mobility plan, as per MoUD 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.
- a) Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
- b) Traffic calming measures.
- c) Proper design of entry and exit points.
- d) Parking norms as per local regulation.
- e) Proper signages.
- 2. 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.
- 3. 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 05 kms 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 be carried out by the project or other agencies in this 05 kms radius of the site in different scenarios of space and time 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.

## IX. Human health issues:

- 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
- For indoor air quality the ventilation provisions as per National Building Code of India.
- Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- 4. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cocking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- Occupational health surveillance of the workers shall be done on a regular basis.
- A First Aid Room shall be provided in the project both during construction and operations of the project.

### X. Corporate Environment Responsibility:

- The Project Proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1<sup>st</sup> May 2018, as applicable, regarding Corporate Environment Responsibility.
- 2. The company shall have a well laid down environmental policy duly approved by the Board of Directors. 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 norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- A separate Environmental cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly the head of the organization.
- 4. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall 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 SEIAA/ Ministry, Regional Office along with the Six-Monthly Compliance Report.

## XI. Additional Conditions:-

- Provide Waste water drain, rainwater drain and water supply pipe separately. Nothing should be drained outside the campus through underground pipes and nothing should be pumped to groundwater. All the sewage drains shall be covered.
- Provide Safety measures (Fire, disaster, flood, etc.), /medical facilities and amangement for physically challenged persons.

### XII. Miscellaneous:

- The Project Proponent shall prominently advertise it at least in two local newspapers
  of the District or State, of which one shall be in the vernacular language within seven
  days indicating that the project has been accorded Environmental Clearance and the
  details of MoEF&CC/SEIAA, Bihar website where it is displayed.
- 2. The copies of the Environmental Clearance shall be submitted by the Project Proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- 3. All utility lines (electricity, telephone, cable, water supply, sewage, drainage, etc., shall be laid below ground level. Ducts shall be provided along and across the roads to lay the utility lines. Major trunk (water/sewerage) lines are to be laid along the utility corridor.
- 4. Rest room facilities shall be provided for service population.
- The Project Proponent shall upload the status of compliance of the supulated Environmental Clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.

- The Project Proponent shall abide by all the commitments and recommendations
  made in the EIA/EMP report, commitment made during their presentation to the State
  Expert Appraisal Committee.
- 7. The Project Proponent shall submit six-monthly reports on the status of the compliance of the stipulated Environmental Conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- 8. The Project Proponent shall submit the environmental statement for each financial year in Form-V to the Bihar State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- 9. The Project Proponent shall inform the SEIAA, Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
- The project authorities must strictly adhere to the stipulations made by the Bihar State Poliution Control Board and the State Government.
- No further expansion or modifications in the plant shall be carried out without prior approval of the SEIAA, Bihar.
- (2. Concealing factual data or submission of false/fabricated data may result in revocation of this Environmental Clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- 13. The Environmental Clearance granted on the basis of submitted layout plan of the proposed construction of buildings/establishments of industries shall be provisional for a period of one year or till its approved by the competent authority whichever is earlier. Should there be any deviation / change in the layout plan (as contained in the project proposal on which Environmental Clearance is granted), the Project Proponent shall furnish a copy along with a request to SEIAA. Bihar to make necessary correction/revision in the Environmental Clearance accordingly. Any failure on part of the Project Proponent in doing so will be treated as a violation of Environmental Clearance condition.

- 14. The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- 15. The SEIAA reserves the right to stipulate additional conditions if found necessary which shall be implemented in a time bound manner.
- 16. The Regional Office of the MoEF&CC, Gol / SEIAA shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer(s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- 17. Project Proponent shall erect a signboard on his project site and display information regarding name of the project, Environmental Clearance letter No., date and validity period of Environmental Clearance, and Environmental Clearance conditions which affect general public at large along with name of authority to which violation of Environmental Clearance conditions can be reported.
- 18. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- Environmental Clearance shall remain valid for a maximum period of 10 years or completion of project whichever is earlier.
- 20. Any appeal against this Environmental Clearance shall lie with the Hon'ble National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act. 2010.

### Annexure -F (Ragbuwar - EC)

# Statutory compliance:

- The Project Proponent shall obtain all necessary clearance/ permission from all
  relevant agencies including town planning authority before commencement of work.
   All the construction shall be done in accordance with the local building byelaws.
- The Project Proponent will obtain CTF from the BSPCB before preparing site for construction; if applicable and CTO before giving occupancy.
- The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment, etc. as per National Building Code including protection measures from lightening, etc.
- All directions of the Airport Authority, Director of Explosives and Fire Department,
   etc. shall be complied with.
- The Project Proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the Bihar State Pollution Control Board.
- The Project Proponent shall obtain the necessary permission for drawl of ground water / surface water required for the project from the competent authority.
- 7 A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.
- All other statutery clearances such as the approvals for storage of diesel from Chief
  Controller of Explosives. Fire Department, Civil Aviation Department shall be
  obtained, as applicable, by Project Proponents from the respective competent
  authorities.
- The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
- The Project Proponent shall follow the ECBC / ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power, Gol. strictly.

- II. The facilities provided for collection, segregation, handling, on site storage & processing of solid waste such as chute system for multi-storey buildings, wet & dry bins, collection center & mechanical composter, etc. shall be properly maintained. The collected solid waste shall be segregated at site. The recyclable solid waste shall be sold out to the authorized vendors / recyclers for which a written tie-up must be done with the authorized vendors / recyclers.
- 12. Hazardous waste / E-waste should be disposed off as per Rules applicable and with the necessary approval of the Bihar State Pollution Control Board.
- Solar power plant or other solar energy related equipment's shall be operated and maintained properly.
- Provisions shall be made for the integration of solar water heating system.
- 15. Environmental Clearance conditions applicable for construction and operation phase which are in the interest of public at large must be displayed at prominent place which can be easily accessible to public along with address and contact number of authorities to whom violation of CC conditions can be reported.
- 16. Project site shall be adequately barricaded before the start of construction activity by erecting suitable windscreen upto. 1/3<sup>rd</sup> of the building height or 10 meters height whichever is more to prevent dispersion of dust particulate (fugitive emission) matter from the construction site.
- 17. Construction of appropriate civil structure and creation of other facilities shall be undertaken to provide benefit of the person suffering from disability in accordance with Honible Supreme Court of India order dated i 5th December 2017 in Writ Petition (Civil) 292 of 2006 with WP (Civil) 997 of 2013 (Disabled Rights Grout &Anr. Vs Union of India &Ors).

# II. Air quality monitoring and preservation

 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 Environmental Clearance shall be complied with.

- 2. Project site shall be adequately barricaded before the start of construction activity by erecting suitable windscreen upto 1/3<sup>rd</sup> of the building height or upto 10 meters height whichever is more to prevent dispersion of particulate matter (fugitive emission) from the construction site. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site Plastic / tarpaulin sheet covers shall be provided for vehicles bringing all loose construction material e.g sand, cement, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.
- A Management Plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.
- 4. Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets.
- Dust, smoke& other air poliution prevention measures shall be provided for the building as well as the site.
- All louse construction material e.g sand, soil, cement, stored on site 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.
- 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.
- 10. The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection). Act 1986 prescribed for air and noise emission standards.
- 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. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB)norms.
- For indoor air quality the ventilation provisions as per National Building Code of India shall be implemented.

# III. Water quality monitoring and preservation:

- 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 wet land and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUOS) 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.
- Total fresh water use shall not exceed the proposed requirement as provided in the project details.
- 4. 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 SEIAA/ Regional Office. MoEF&CC along with six monthly Monitoring reports.
- 5. A certificate shall be obtained from the 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 other users.
- 6. At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape, etc. would be considered as pervious surface.
- 7. Installation of dual pape plumbing for supplying fresh water for drinking, cooking and bathing, etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thennal cooling, conditioning, etc. shall be done.
- 8. 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.

- Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
- Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- 1). The local bye-law provisions on rain water harvesting should be followed. If local byelaw provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws. 2016. Rainwater harvesting recharge pits/storage tanks shall be provided for ground water recharging as per the CGWB norms.
- 12. A rain water harvesting plan needs to be designed where the recharge bores of minimum one recharge hore per 5,000 square meters of built-up area and storage capacity of minimum one day of total fresh water requirement shall be provided. In areas where ground water recharge is not feasible, the rain water should be harvested and stored for reuse. The ground water shall not be withdrawn without approval from the Competent Authority.
- All recharge should be limited to shallow aquifer.
- 14 No ground water shall be used during construction phase of the project.
- 15. 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.
- 16. Sewage shall be treated in the STP with tertiary treatment. The treated effluent from STP shall be recycled/re-used for flushing, AC make up water and gardening. As proposed, no treated water shall be disposed into municipal crain.
- No sewage or untreated effluent water would be discharged through storm water drains.
- 18. Onsite sewage treatment of capacity of treating 100% waste water to be installed. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Treated waste water shall be reused on site for landscape, flushing, cooling tower, and other end-uses. Excess treated water shall be discharged asper statutory norms notified by Ministry of Environment, Forest and Climate Change. Natural treatment systems shall be promoted.

- Periodical monitoring of water quality of treated sewage shall be conducted.
   Necessary measures should be made to mitigate the odour problem from STP.
- 20. 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.
- 21. Separate drainage system shall be developed for storm water so that end point discharge to nearest nallah / river is ensured to avoid water logging without any increase in the pollution load in receiving system.
- 22. Possibilities need to be explored to use STP waste water during construction phase.
  Fresh water shall be used only after exhausting the possibility of obtaining STP waste water located in municipal jurisdiction.

# IV. Noise monitoring and prevention:

- I. Ambient noise levels shall conform to residential area silence zone both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. 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
- Acoustic enclosures for DG sets, noise barriers for ground-run bays, car plugs for
  operating personnel shall be implemented as mitigation measures for noise impact
  due to ground sources.

# V. Energy Conservation measures;

- 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 Energy Conservation Building Code (ECBC) specifications.
- 4. Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning.
- Solar, wind or other Renewable Energy shall be installed to meet electricity
  generation equivalent to 1% of the demand load or as per the state level/ local
  building bye-law's requirement, whichever is higher.
- 6. Solar power shall be used for lighting in the spartment 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 not water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible

### VI. Waste Management:

- 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 (M.S.W.) generated from project shall be obtained.
- Proper composting / vermi-composting of municipal and biodegradable solid wastes shall be carried out. All municipal solid wastes shall be segregated, collected, transported, treated and disposed as per provisions of the Solid Wastes Management, 2016 (As amended).
- 3 All the top soil excavated during construction activities shall be stored for use in horticulture/landscape development within the project site.
- Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- 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 well garbage and inert materials.

- Organic waste compost/ Vermiculture pit/ Organic Waste Converter within the premises with a minimum capacity of 0.3 kg/person/day must be installed.
- All non-biodegradable waste shall be handed over to authorized recyclers for which a
  written tie up must be done with the authorized recyclers.
- Any hazardous waste generated during construction phase, shall be disposed off as
  per applicable rules and norms with necessary approvals of the Bihar State Pollution
  Control Board.
- 9. 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.
- 10. 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.
- Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.
- 12. Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.

#### VII. Green Cover:

- 1. No tree should be feiled unless exigencies demand. Wherever absolutely necessary, tree translocation shall be done with prior permission from the concerned regulatory authority. Old trees should be retained/translocated based on girth and age regulations as may be prescribed by the Forest Department Plantations to be ensured in the ratio of species cut to species planted.
- 2,208.34 sqm. of the total plot area shall be kept under green belt cover within the project site.
- All the efforts shall be made not to fell any tree however if any tree need to be removed necessarily, it may be translocated with prior permission from concerned

local Authority. In case of felling, plantations to be ensured in the ratio of species out / removed to species planted. Area for green belt development shall be provided as per the details provided in the Project document

4. Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, reads, paved areas, and external services. It should be stockpiled appropriately in designated areas and re-applied during plantation of the proposed vegetation on site.

### VIII. Transport:

- A comprehensive mobility plan, as per MoUD 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.
- 1. Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
- II. Traffic calming measures.
- III. Proper design of entry and exit points.
- IV. Parking norms as per local regulation.
- Proper signages.
- 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.
- 3. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current leve; of service of the roads within a 05 kms 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 be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time 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 piepartments.

### (X. Human health issues:

- 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.
- For indoor air quality the ventilation provisions as per National Building Code of India.
- Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Pian shall be implemented.
- 4. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crethe etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- Occupational health surveillance of the workers shall be done on a regular basis.
- A First Aid Room shall be provided in the project both during construction and operations of the project.

# X. Corporate Environment Responsibility;

- The Project Proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1° May 2018, as applicable, regarding Corporate Environment Responsibility.
- 2. The company shall have a well laid down environmental policy duly approved by the Board of Directors. 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 norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEP&CC as a part of six-monthly report
- A separate Environmental cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly the head of the organization.

4. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company snall be prepared and shall be duly approved by competent authority. The year wise funds carmarked 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 SEIAA! Ministry, Regional Office along with the Six-Monthly Compliance Report.

#### XI. Additional Conditions:-

- Provide Waste water drain, tainwater drain and water supply pipe separately.
   Nothing should be drained outside the campus through underground pipes and nothing should be pumped to groundwater. All the sewage drains shall be covered.
- Provide Safety measures (Fire, disaster, flood, etc.), /medical facilities and arrangement (or physically challenged persons.

#### XII. Miscellaneous:

- The Project Proponent shall prominently advertise it at least in two local newspapers
  of the District or State, of which one shall be in the vernacular fanguage within seven
  days indicating that the project has been accorded Environmental Clearance and the
  details of MoEP&CC/SEIAA, Bihar website where it is displayed.
- 2. The copies of the Environmental Clearance shall be submitted by the Project Proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- 3. All utility lines (electricity, telephone, cable, water supply, sewage, drainage, etc. shall be laid below ground level. Ducts shall be provided along and across the roads to lay the utility lines. Major trunk (water/sewerage) lines are to be laid along the utility corridor.
- 4. Rest room facilities shall be provided for service population.

- The Project Proponent shall upload the status of compliance of the stipulated Environmental Clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- The Project Proponent shall abide by all the commitments and recommendations
  made in the FIA/EMP report, commitment made during their presentation to the State
  Expert Appraisal Committee.
- 7. The Project Proponent shall submit six-morthly reports on the status of the compliance of the stipulated Environmental Conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- 8. The Project Proponent shall submit the environmental statement for each financial year in Form-V to the Bihar State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- 9. The Project Proponent shall inform the SEIAA, Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
- 10. The project authorities must strictly adhere to the stipulations made by the Bihar State Pollution Control Board and the State Government.
- No further expansion or modifications in the plant shall be carried out without prior approval of the SEIAA, Bihar.
- 12 Concealing factual data or submission of false/fabricated data may result in revocation of this Environmental Clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- 13. The Environmental Clearance granted on the basis of submitted layout plan of the proposed construction of buildings/establishments of industries shall be provisional for a period of one year or till its approved by the competent authority whichever is earlier. Should there be any deviation / change in the layout plan (as contained in the project proposal on which Environmental Clearance is granted), the Project Proponent shall furnish a copy along with a request to SEIAA, Bihar to make necessary correction/revision in the Environmental Clearance accordingly. Any

- failure on part of the Project Proponent in doing so will be treated as a violation of Environmental Cleurance condition.
- 14. The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- 15. The SEIAA reserves the right to stipulate additional conditions if found necessary which shall be implemented in a time bound manner.
- 16. The Regional Office of the MoEF&CC, Gol / SEIAA shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer(s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- 17. Project Proponent shall erect a signboard on his project site and display information regarding name of the project, Environmental Clearance letter No., date and validity period of Environmental Clearance, and Environmental Clearance conditions which affect general public at large along with name of authority to which violation of Environmental Clearance conditions can be reported.
- 18. The above conditions shall be enforced, inter-also under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986. Hazardous and Other Wastes (Management and transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- 19. Environmental Clearance shall remain valid for a maximum period of 10 years or completion of project whichever is earlier.
- 20. Any appeal against this Environmental Clearance shall lie with the Hon'ble National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

# Annexure -G (Gulabl Mega City - EC)

# L Statutory compliance:

- 1. The Project Proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work.
  All the construction shall be done in accordance with the local building byelaws.
- The Project Proponent will obtain CTE from the BSPCB before preparing site for construction; if applicable and CTO before giving occupancy.
- The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment, etc. as per National Building Code including protection measures from lightening, etc.
- Atl directions of the Airport Authority. Director of Explosives and Fire Department,
   etc. shall be complied with.
- The Project Proponent shall obtain Consent to Establish / Operate under the
  provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water
  (Prevention & Control of Pollution) Act, 1974 from the Bihar State Pollution Control
  Board.
- The Project Preponent shall obtain the necessary permission for drawl of ground water / surface water required for the project from the competent authority.
- A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.
- 8. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department shall be obtained, as applicable, by Project Proponents from the respective competent authorities.
- The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
- The Project Proponent shall follow the ECBC ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power, Gol. strictly

- 11. The facilities provided for collection, segregation, handling, on site storage & processing of solid waste such as chute system for multi-storey buildings, wet & dry bins, collection center & mechanical composter, etc. shall be properly maintained. The collected solid waste shall be segregated at site. The recyclable solid waste shall be sold out to the authorized vendors / recyclers for which a written tie-up must be done with the authorized vendors / recyclers.
- Hazardous waste / E-waste should be disposed off as per Rules applicable and with the necessary approval of the Bihar State Pollution Control Board.
- Solar power plant or other solar energy related equipment's shall be operated and maintained properly.
- 14 Provisions shall be made for the integration of solar water heating system.
- 15. Environmental Clearance conditions applicable for construction and operation phase which are in the interest of public at large must be displayed at prominent place which can be easily accessible to public along with address and contact number of authorities to whom violation of EC conditions can be reported.
- 16. Project site shall be adequately barricaded before the start of construction activity by erecting suitable windscreen upto 1/3<sup>rd</sup> of the building height or 10 meters height whichever is more to prevent dispersion of dust particulate (fugitive emission) matter from the construction site.
- 17. Construction of appropriate civil structure and creation of other facilities shall be undertaken to provide benefit of the person suffering from disability in accordance with Hon'ble Supreme Court of India order dated 15th December 2017 in Writ Petition (Civil) 292 of 2006 with WP (Civil) 997 of 2013 (Disabled Rights Grout & Anr. Vs Union of India & Ors).

## II. Air quality monitoring and preservation

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- 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 wet garbage and inert materials.

- Organic waste compost/ Vermiculture pit/ Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day must be installed.
- All non-biodegradable waste shall be handed over to authorized recyclers for which a
  written tie up must be done with the authorized recyclers.
- Any hazardous waste generated during construction phase, shall be disposed off as
  per applicable rules and norms with necessary approvals of the Bihar State Pollution
  Control Board.
- 9. 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.
- 10. 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.
- Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.
- Used CFLs and TFLs should be properly collected and disposed off/sent for recycling
  as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury
  contamination.

#### VII. Green Cover:

- 1. No tree should be felled unless exigencies demand. Wherever absolutely necessary, tree translocation shall be done with prior permission from the concerned regulatory authority. Old trees should be retained/translocated based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured in the ratio of species cur to species planted.
- 1,923.02 sqm. of the total plot area shall be kept under green belt cover within the project site.
- All the efforts shall be made not to fell any tree however if any tree need to be removed necessarily, it may be translocated with prior permission from concerned.

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4. Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and re-applied during plantation of the proposed vegetation on site.

## VIII. Transport:

- I. A comprehensive mobility plan, as per MoUD best practices guidelines (URDPF1), 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.
- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
- b) Traffic calming measures
- c) Proper design of entry and exit points.
- d) Parking norms as per local regulation.
- Proper signages.
- 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 he operated only during non-peak hours.
- 3. 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 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on eumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 kms radius of the site in different scenarios of space and time 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.

#### IX. Human health issues:

- 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
- For indoor air quality the ventilation provisions as per National Building Code of India.
- Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- 4. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- Occupational health surveillance of the workers shall be done on a regular basis.
- A First Aid Room shall be provided in the project both during construction and operations of the project.

## X. Corporate Environment Responsibility:

- The Project Proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1<sup>st</sup> May 2018, as applicable, regarding. Corporate Environment Responsibility.
- 2. The company shall have a well laid down environmental policy duly approved by the Board of Directors. 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 norms / conditions and / or shaleholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- A separate Environmental cell both at the project and company head quarter level,
  with qualified personnel shall be set up under the control of senior Executive, who
  will directly the head of the organization.
- Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall 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 SEIAA/ Ministry, Regional Office along with the Six-Monthly Compliance Report.

### XI. Additional Conditions:-

- Provide Waste water drain, raintwater drain and water supply pipe separately. Nothing should be drained outside the campus through underground pipes and nothing should be pumped to groundwater. All the sewage drains shall be covered
- Provide Safety measures (Fire, disaster, flood, etc.), /medical facilities and arrangement for physically challenged persons.

#### XII. Miscellaneous:

- The Project Proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded Environmental Clearance and the details of MoEF&CC/SEIAA, Bihar website where it is displayed.
- 2. The copies of the Environmental Clearance shall be submitted by the Project Proponents to the Heeds of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
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- The Project Proponent shall upload the status of compliance of the stipulated Environmental Clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.

- The Project Proponent shall abide by all the commitments and recommendations
  made in the EIA/EMP report, commitment made during their presentation to the State
  Expert Appraisal Committee.
- 7. The Project Proponent shall submit six-monthly reports on the status of the compliance of the stipulated Environmental Conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- 8. The Project Proponent shall submit the environmental statement for each financial year in Form-V to the Bihar State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- 9. The Project Proponent shall inform the SEIAA, Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
- The project authorities must strictly adhere to the stipulations made by the Bihar State Pollution Control Board and the State Government.
- No further expansion or modifications in the plant shall be carried out without prior approval of the SEIAA, Bihar.
- 12 Concealing factual data or submission of false/fabricated data may result in revocation of this Environmental Clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- 13. The Environmental Clearance granted on the basis of submitted layout plan of the proposed construction of buildings/establishments of industries shall be provisional for a period of one year or till its approved by the competent authority whichever is earlier. Should there be any deviation / change in the layout plan (as contained in the project proposal on which Environmental Clearance is granted), the Project Proponent shall furnish a copy along with a request to SEIAA, Bihar to make necessary correction/revision in the Environmental Clearance accordingly. Any failure on part of the Project Proponent in doing so will be treated as a violation of Environmental Clearance condition.

- 14 The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- 15. The SEIAA reserves the right to stipulate additional conditions if found necessary which shall be implemented in a time bound manner.
- 16. The Regional Office of the MoEF&CC. GoI / SEIAA shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer(s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- 17. Project Proponent shall erect a signboard on his project site and display information regarding name of the project, Environmental Clearance letter No., date and validity period of Environmental Clearance, and Environmental Clearance conditions which affect general public at large along with name of authority to which violation of Environmental Clearance conditions can be reported.
- 18. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- Environmental Clearance shall remain valid for a maximum period of 10 years or completion of project whichever is earlier.
- 20. Any appeal against this Environmental Clearance shall lie with the Hon'ble National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

# Annexure - H (Medical College, Bhojpur - EC)

## I. Statutory compliance:

- The Project Proponent shall obtain all necessary clearance, permission from all relevant agencies including town planning authority before commencement of work.
   All the construction shall be done in accordance with the local building byelaws.
- The Project Proponent will obtain CTE from the BSPCB before preparing site for construction; if applicable and CTO before giving occupancy.
- The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment, etc. as per National Building Code including protection measures from lightening, etc.
- 4 All directions of the Airport Authority, Director of Explosives and Fire Department, etc. shall be complied with.
- The Project Proponent shall obtain Consent to Establish / Operate under the
  provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water
  (Prevention & Control of Pollution) Act, 1974 from the Bihar State Pollution Control
  Board.
- 6. The Project Proponent shall obtain the necessary permission for drawl of ground water / surface water required for the project from the competent authority.
- A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.
- 8. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department shall be obtained, as applicable, by Project Proponents from the respective competent authorities.
- The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
- The Project Proponent shall follow the ECBC / ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power, Goll-strictly.

- 11. The facilities provided for collection, segregation, handling, on site storage & processing of solid waste such as chute system for multi-storey buildings, wet & diry bins, collection center & mechanical composter, etc. shall be properly maintained. The collected solid waste shall be segregated at site. The recyclable solid waste shall be sold out to the authorized vendors / recyclers for which a written tie-up must be done with the authorized vendors / recyclers.
- 12 Hazardous waste / E-waste should be disposed off as per Rules applicable and with the necessary approval of the Bihar State Pollution Control Board.
- Solar power plant or other solar energy related equipment's shall be operated and maintained properly.
- 14. Provisions shall be made for the integration of solar water heating system.
- 15. Environmental Clearance conditions applicable for construction and operation phase which are in the interest of public at large must be displayed at prominent place which can be easily accessible to public along with address and contact number of authorities to whom violation of EC conditions can be reported.
- 16. Project site shall be adequately barricaded before the start of construction activity by etecting suitable windscreen upto. 1/3<sup>rd</sup> of the building height or 10 meters height whichever is more to prevent dispersion of dust particulate (fugitive emission) matter from the construction site.
- 17. Construction of appropriate civil structure and creation of other facilities shall be undertaken to provide benefit of the person suffering from disability in accordance with Hon'ble Supreme Court of India order dated 15th December 2017 in Writ Petition (Civil) 292 of 2006 with WP (Civil) 997 of 2013 (Disabled Rights Grout &Anr. Vs Union of India &Ors).

# IL Air quality monitoring and preservation

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 Environmental Clearance shall be complied with

- 2. Project site shall be adequately barricaded before the start of construction activity by erecting suitable windscreen upto 1/3<sup>rd</sup> of the building height or upto 10 meters height whichever is more to prevent dispersion of particulate matter (fugitive emission) from the construction site. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. Plastic / tarpaulin sheet covers shall be provided for vehicles bringing all loose construction material e.g sand, cement, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.
- A Management Plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.
- 4. Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets.
- Dust, smoke& other air pollution prevention measures shall be provided for the building as well as the site.
- All loose construction material e.g sand, soil, cement, stored on site 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.
- All construction and demolition debris shall be stored at the site (and not damped 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.
- 10. The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection), Act 1986 prescribed for air and noise emission standards.
- 11. 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. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB)norms.
- 12. For indoor air quality the ventilation provisions as per National Building Code of India shall be implemented.

# III. Water quality monitoring and preservation:

- 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 wet land and water bodies. Check dams, bio-swales, landscape, and other sustainable urban crainage 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.
- Total fresh water use shall not exceed the proposed requirement as provided in the project details.
- 4. 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 SEIAA/ Regional Office, MoEF&CC along with six monthly Monitoring reports.
- 5. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water aircady 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 other users.
- 6. At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape, etc., would be considered as pervious surface.
- 7. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing, etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning, etc. shall be done.
- 8. 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

- 9. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
- Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- 11. The local bye-law provisions on rain water harvesting should be followed. If local byelaw provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rainwater harvesting recharge pits/storage tanks shall be provided for ground water recharging as per the CGWB norms.
- 12. A min water harvesting plan needs to be designed where the recharge bores of minimum one recharge bore per 5,000 square meters of built-up area and storage capacity of minimum one day of total fresh water requirement shall be provided. In areas where ground water recharge is not feasible, the rain water should be harvested and stored for reuse. The ground water shall not be withdrawn without approval from the Competent Authority.
- All recharge should be limited to shallow aquifer.
- 14. No ground water shall be used during construction phase of the project.
- 15. 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.
- 16. Sewage shall be treated in the STP with tertiary treatment. The treated effluent from STP shall be recycled/re-used for flushing, AC make up water and gardening. As proposed, no treated water shall be disposed into municipal drain.
- No sewage or untreated effluent water would be discharged through storm water drains.
- 18. Onsite sewage (reatment of capacity of treating 100% waste water to be installed. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Treated waste water shall be reused on site for landscape, flushing, cooling tower, and other end-uses. Excess treated water shall be discharged asper statutory norms notified by Ministry of Environment. Forest and Climate Change. Natural treatment systems shall be promoted.

- 19. Periodical municiping of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- 20. 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.
- 21. Separate drainage system shall be developed for storm water so that end point discharge to nearest nallah / river is ensured to avoid water logging without any increase in the pollution load in receiving system.
- 22. Possibilities need to be explored to use STP waste water during construction phase.
  Fresh water shall be used only after exhausting the possibility of obtaining STP waste water located in nunricipal jurisdiction.

# IV. Noise monitoring and prevention:

- 1. Ambient noise levels shall conform to residential area silence zone both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. 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.
- Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for
  operating personnel shall be implemented as mitigation measures for noise impact
  due to ground sources.

# V. Energy Conservation measures:

- 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 Energy Conservation Building Code (ECBC) specifications.
- 4. Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning.
- 5. Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 1% of the demand load or as per the state level/ local building bye-law's requirement, whichever is higher.
- 6. Solar power shall be used for lighting in the spartment 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. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

### VI. Waste Management:

- A certificate from the competent authority handling municipal solid wasters, indicating the existing civic capacities of handling and their adequacy to cater to the Municipal Solid Waste (M.S.W.) generated from project shall be obtained.
- Proper composting / vermi-composting of municipal and biodegradable solid wastes shall be carried out. All municipal solid wastes shall be segregated, collected, transported, treated and disposed as per provisions of the Solid Wastes Management, 2016 (As amended).
- All the top soil excavated during construction activities shall be stored for use in horticulture/landscape development within the project site.
- 4. Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
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- The Environmental Clearance granted on the basis of submitted layout plan of the proposed construction of buildings/establishments of industries shall be provisional for a period of one year or till its approved by the competent authority whichever is earlier. Should there be any deviation / change in the layout plan (as contained in the project proposal on which Environmental Clearance is granted), the Project Proponent shall furnish a copy along with a request to SEIAA, Bihar to make necessary correction/revision in the Environmenta; Clearance accordingly. Any failure on part of the Project Proponent in doing so will be treated as a violation of Environmental Clearance condition.

- The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- 15. The SEIAA reserves the right to stipulate additional conditions if found necessary which shall be implemented in a time bound manner.
- 16. The Regional Office of the MoEF&CC. Gol / SEIAA shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer(s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- 17. Project Proponent shall erect a signboard on his project site and display information regarding name of the project, Environmental Clearance letter No., date and validity period of Environmental Clearance, and Environmental Clearance conditions which affect general public at large along with name of authority to which violation of Environmental Clearance conditions can be reported.
- 18. The above conditions shall be en(orced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986. Hazardous and Other Wastes (Management and transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Honble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter
- Environmental Clearance shall remain valid for a maximum period of 10 years or completion of project whichever is earlier.
- 20. Any appeal against this Environmental Clearance shall be with the Hon'ble National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

### Annexure -I (The Emperor - EC)

### I. Statutory compliance:

- The Project Proponent shall obtain all necessary clearance/ permission from all
  relevant agencies including town planning authority before commencement of Work.
   All the construction shall be done in accordance with the local building byelaws
- The Project Proponent will obtain CTE from the BSPCB before preparing site for construction; if applicable and CTO before giving occupancy.
- The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment, etc. as per National Building Code including protection measures from lightening, etc.
- All directions of the Airport Authority, Director of Explosives and Fire Department,
   etc. shall be complied with.
- The Project Proponent shall obtain Consent to Establish / Operate under the
  provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water
  (Prevention & Control of Pollution) Act, 1974 from the Bihar State Pollution Control
  Board.
- The Project Proponent shall obtain the necessary permission for drawl of ground water / surface water required for the project from the competent authority.
- A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.
- All other statutory clearances such as the approvals for storage of diesel from Chief
  Controller of Explosives, Fire Department, Civil Aviation Department shall be
  obtained, as applicable, by Project Proponents from the respective competent
  authorities.
- The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
- The Project Proponent shall follow the ECBC / ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power, Gol/strictly.

- 11. The facilities provided for collection, segregation, handling, on site storage & processing of solid waste such as chute system for multi-storey buildings, wet & dry bins, collection center & mechanical composter, etc. shall be properly maintained. The collected solid waste shall be segregated at site. The recyclable solid waste shall be sold out to the authorized vendors / recyclers for which a written tic-up must be done with the authorized vendors / recyclers.
- Hazardous waste / E-waste should be disposed off as per Rules applicable and with the necessary approval of the Bihar State Pollution Control Board.
- Solar power plant or other solar energy related equipment's shall be operated and maintained properly.
- 14. Provisions shall be made for the integration of solar water heating system.
- 15. Environmental Clearance conditions applicable for construction and operation phase which are in the interest of public at large must be displayed at prominent place which can be easily accessible to public along with address and contact number of authorities to whom violation of EC conditions can be reported.
- 16. Project site shall be adequately barricaded before the start of construction activity by erecting suitable windscreen upto. 1/3<sup>rd</sup> of the building height or 10 meters height whichever is more to prevent dispersion of dust particulate (fugitive emission) matter from the construction site.
- 17. Construction of appropriate civil structure and creation of other facilities shall be undertaken to provide benefit of the person suffering from disability in accordance with Hon'ble Supreme Court of India order dated 15th December 2017 in Writ Petition (Civil) 292 of 2006 with WP (Civil) 997 of 2013 (Disabled Rights Grout &Anr. Vs Union of India &Ors).

# Air quality monitoring and preservation

 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 Environmental Clearance shall be complied with.

- 2. Project site shall be adequately barricaded before the start of construction activity by erecting suitable windscreen upto 1/3<sup>rd</sup> of the building height or upto 10 meters height whichever is more to prevent dispersion of particulate matter (fugitive emission) from the construction site. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. Plastic / tarpaulin sheet covers shall be provided for vehicles bringing all loose construction material e.g sand, cement, murram and other construction materials prope to causing dust pollution at the site as well as taking out debris from the site
- A Management Plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.
- 4. Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets.
- Dust, smoke& other air pollution prevention measures shall be provided for the building as well as the site.
- All loose construction material e.g sand, soil, cement, stored on site 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.
- 9. All construction and demofition 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.
- 10 The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection), Act 1986 prescribed for air and noise emission standards.
- 11. 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. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB)norms
- For indoor air quality the ventilation provisions as per National Building Code of India shall be implemented.

## III. Water quality monitoring and preservation:

- 1. 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 wet land 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.
- Ouildings shall be designed to follow the natural topography as much as possible.
   Minimum cutting and filling should be done.
- Total fresh water use shall not exceed the proposed requirement as provided in the project details.
- 4. 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 SEIAA/ Regional Office, MoFF&CC along with six monthly Monitoring reports.
- 5. A certificate shall be obtained from the 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 other users.
- 6. At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape, etc. would be considered as pervious surface.
- Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing, etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning, etc. shall be done.
- 8. Use of water saving devices/ fixtures (viz. tow flow flow flow flow flaucets tap aerators, etc.) for water conservation shall be incorporated in the building plan.

- Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done
- Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- 11. The local bye-law provisions on rain water harvesting should be followed. If local byelaw provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rainwater harvesting recharge pits/storage tanks shall be provided for ground water recharging as per the CGWB norms.
- 12. A rain water harvesting plan needs to be designed where the recharge bores of minimum one recharge bore per 5,000 square meters of built-up area and storage capacity of minimum one day of total fresh water requirement shall be provided. In areas where ground water recharge is not feasible, the rain water should be harvested and stored for reuse. The ground water shall not be withdrawn without approval from the Competent Authority.
- All recharge should be limited to shallow aquifer.
- 14. No ground water shall be used during construction phase of the project.
- 15. 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.
- 16. Sewage shall be treated in the STP with tertiary treatment. The treated effluent from STP shall be recycled/re-used for flushing. AC make up water and gardening. As proposed no treated water shall be disposed into municipal drain.
- No sewage or untreated effluent water would be discharged through storm water drains.
- 18. Onsite sewage treatment of capacity of treating 100% waste water to be installed. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Treated waste water shall be reused on site for landscape, flushing, cooling tower, and other end-uses. Excess treated water shall be discharged asper statutory norms notified by Ministry of Environment, Forest and Climate Change. Natural treatment systems shall be promoted.

- Periodical monitoring of water quality of treated sewage shall be conducted.
   Necessary measures should be made to mitigate the odour problem from STP.
- 20 Studge 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.
- 21. Separate drainage system shall be developed for storm water so that end point discharge to nearest nallah / river is ensured to avoid water logging without any increase in the pollution load in receiving system.
- 22. Possibilities need to be explored to use STP waste water during construction phase. Fresh water shall be used only after exhausting the possibility of obtaining STP waste water located in municipal jurisdiction.

### IV. Noise monitoring and prevention:

- 1. Ambient noise levels shall conform to residential area silence zone both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. 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
- Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for
  operating personnel shall be implemented as mitigation measures for noise impact
  due to ground sources.

## V. Energy Conservation measures:

- Compliance with the Energy Conservation Building Code (ECBC) of Bareau of Energy Efficiency shall be ensured Buildings in the States which have notified their own ECBC, shall comply with the State ECBC.
- 2. 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 toof u-values shall be as per Energy Conservation Building Code (ECBC) specifications.
- Energy conservation measures like installation of CFLs/ UED for the lighting the area
  outside the building should be integral part of the project design and should be in
  place before project commissioning.
- Solar, wind or other Renewable Energy shall be installed to meet electricity
  generation equivalent to 1% of the demand load or as per the state level/ local
  building bye-law's requirement, whichever is higher.
- 6. 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 Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

### VI. Waste Management:

- 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 (M.S.W.) generated from project shall be obtained
- Proper composting / vermi-composting of municipal and biodegradable solid wastes shall be carried out. All municipal solid wastes shall be segregated, collected, transported, treated and disposed as per provisions of the Solid Wastes Management, 20:6 (As amended).
- All the top soil excavated during construction activities shall be stored for use in horticulture/landscape development within the project site.
- 4. Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority
- 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 wet garbage and inert materials

- Organic waste compost/ Vermiculture pit/ Organic Waste Converter within the premises with a minimum capacity of 0.3 kg/person/day must be installed.
- All non-biodegradable waste shall be handed over to authorized recyclers for which a
  written tie up must be done with the authorized recyclers
- Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the Bihar State Pollution Control Board.
- 9. 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.
- Fig ash should be used as building material in the construction as per the provision of Pty 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
- Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.
- 12. Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.

#### VII. Green Cover:

- 1. No tree should be felled unless exigencies demand. Wherever absolutely necessary, tree translocation shall be done with prior permission from the concerned regulatory authority. Old trees should be retained/translocated based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured in the ratio of species cut to species planted.
- 1,287.20 sgm. (20%) of the total plot area shall be kept under green belt cover within the project site.
- All the efforts shall be made not to fell any tree however if any tree need to be removed necessarily, it may be translocated with prior permission from concerned.

local Authority. In case of felling, plantations to be ensured in the ratio of species out / removed to species planted. Area for green belt development shall be provided as per the details provided in the Project document

4. Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and re-applied during plantation of the proposed vegetation on site.

#### VIII. Transport:

- A comprehensive mobility plan, as per MoUD best practices guidelines (URDPF1), 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 onteria.
- a) Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
- Traffic calming measures.
- Proper design of entry and exit points.
- d) Parking norms as per local regulation.
- e) Proper signages.
- 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.
- 3. 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 05 kms 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 be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time 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.

#### IX. Human health issues:

- 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.
- For indoor air quality the ventilation provisions as per National Building Code of India.
- Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- 4. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cocking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- Occupational health surveillance of the workers shall be done on a regular basis.
- A First Aid Room shall be provided in the project both during construction and operations of the project.

## X. Corporate Environment Responsibility:

- The Project Proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-1A.III dated 1" May 2018, as applicable, regarding Corporate Environment Responsibility.
- The company shall have a well iaid down environmental policy duly approved by the 2. Board of Directors. 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 reporting infringements/deviztion / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- 3. A separate Environmental cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly the head of the organization.
- Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall 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 SEJAA/ Ministry, Regional Office along with the Six-Monthly Compliance Report

#### XI. Additional Conditions:-

- Provide Waste water drain, rainwater drain and water supply pipe separately. Nothing should be drained outside the campus through underground pipes and nothing should be pumped to groundwater. All the sewage drains shall be covered.
- Provide Safety measures (Fire, disaster, flood, etc.), /medical facilities and arrangement for physically challenged persons.

#### XII. Miscellaneous:

- The Project Proponent shall prominently advertise it at least in two local newspapers
  of the District or Stale, of which one shall be in the vernacular language within seven
  days indicating that the project has been accorded Environmental Clearance and the
  details of MoEF&CC/SEIAA, Bihar website where it is displayed.
- 2. The copies of the Environmental Clearance shall be submitted by the Project Propenents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- 3. All utility lines (electricity, telephone, cable, water supply, sewage, drainage, etc. shall be laid below ground level. Duets shall be provided along and across the roads to lay the utility lines. Major trunk (water/sewerage) lines are to be laid along the utility corridor.
- 4. Rest room facilities shall be provided for service population.
- The Project Proponent shall upload the status of compliance of the stipulated Environmental Clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.

- The Project Proponent shall abide by all the commitments and recommendations
  made in the EIA/EMP report, commitment made during their presentation to the State
  Expert Appraisal Committee.
- The Project Proponent shall submit six-monthly reports on the status of the
  compliance of the stipulated Environmental Conditions on the website of the ministry
  of Environment, Forest and Climate Change at environment clearance portal.
- 8. The Project Proponent shall submit the environmental statement for each financial year in Form-V to the Bihar State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- 9. The Project Proponent shall inform the SEIAA, Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
- The project authorities must strictly adhere to the stipulations made by the Bihar State Poliution Control Board and the State Government.
- No further expansion or modifications in the plant shall be carried out without prior approval of the SEIAA, Bihar.
- Concealing factual data or submission of false/fabricated data may result in revocation of this Environmental Clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- 13. The Environmental Clearance granted on the basis of submitted layout plan of the proposed construction of buildings'establishments of industries shall be provisional for a period of one year or till its approved by the competent authority whichever is earlier. Should there be any deviation / change in the layout plan (as contained in the project proposal on which Environmental Clearance is granted), the Project Proponent shall furnish a copy along with a request to SEIAA, Bihar to make necessary correction/revision in the Environmental Clearance accordingly. Any failure on part of the Project Proponent in doing so will be treated as a violation of Environmental Clearance condition.

- The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- 15. The SEIAA reserves the right to stipulate additional conditions if found necessary which shall be implemented in a time bound manner.
- 16. The Regional Office of the MoEF&CC. Gol / SEIAA shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer(s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- 17. Project Proponent shall erect a signboard on his project site and display information regarding name of the project, Environmental Clearance letter No., date and validity period of Environmental Clearance, and Environmental Clearance conditions which affect general public at large along with name of authority to which violation of Environmental Clearance conditions can be reported.
- 18. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / {Tigh Courts and any other Court of Law relating to the subject matter.
- 19. Environmental Clearance shall remain valid for a maximum period of 10 years or completion of project whichever is earlier.
- 20. Any appeal against this Environmental Clearance shall lie with the Hon'ble National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

### Annexure - J- (Harinagar - ToR)

### I. Standard Terms of Reference Condition

Executive Summary.

#### 2. Introduction.

- Details of the ElA Consultant including NABET accreditation.
- Information about the project propunent.
- iii. Importance and benefits of the project.

## Project Description.

- Cost of project and time of completion.
- Products with capacities for the proposed project.
- iii. If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
- iv. List of raw materials required and their source along with mode of transportation.
- Other chemicals and materials required with quantities and storage capacities
- vi. Details of Emission, effluents, hazardous waste generation and their management
- vii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)
- viii. Process description along with major equipments and machineries, process flow sheet (quantative) from raw material to products to be provided.
  - Hazard identification and details of proposed safety systems.
  - X. Expansion /modernization proposals:
    - a) Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment and Porests as per circular dated.

30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided in addition, status of compliance of Consent to Operate for the ongoing existing operation of the project from SPCB shall be attached with the EIA-EMP report.

In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

#### 4. Site Details.

- Location of the project site covering village, Taluka/Tehsil, District and State,
   Justification for selecting the site, whether other sites were considered.
- ii. A toposheet of the study area of radius of 10km and site location on 1:50.000/1:25,000 scale on an A3/A2 sheet. (Including all eco-sensitive areas and environmentally sensitive places)
- Details w.r.t. option analysis for selection of site.
- iv. Co-ordinates (lat-long) of all four corners of the site.
- Google map-Earth downloaded of the project site.
- vi. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.
- vii. Photographs of the proposed and existing (if applicable) plant site. If existing, show photographs of plantation/greenbelt, in particular.
- viii. Landuse break-up of total land of the project site (identified and acquired),
  government / private agricultural, forest, wasteland, water bodies,
  settlements, etc shall be included. (not required for industrial area)

- ix. A list of major industries with name and type within study area (10km radius) shall be incorporated. Land use details of the study area.
- Geological features and Geo-hydrological status of the study area shall be included
- xi. Details of Drainage of the project upto 5km radius of study area. If the site is within 1 km radius of any major river, peak and lean season river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of Flood Level of the project site and maximum Flood Level of the river shall also be provided. (mega green field projects)
- xit. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land.
- xiii. R&R details in respect of land in line with state Government policy.

## Forest and wildlife related issues (if applicable):

- Permission and approval for the use of forest land (forestry clearance), if any, and recommendations of the State Forest Department, (if applicable)
- ii. Landuse map based on High resolution satellite imagery (GPS) of the proposed site delineating the forestland (in case of projects involving forest land more than 40 ha).
- Status of Application submitted for obtaining the stage I forestry clearance along with latest status shall be submitted.
- The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden-thereon.
- V. Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the State Government for conservation of Schedule I fauna, if any exists in the study area.
- Vi Copy of application submitted for clearance under the Wildlife (Protection)

  Act, 1972, to the Standing Committee of the National Board for Wildlife.

#### 6. Environmental Status

- i. Determination of atmospheric inversion level at the project site and sitespecific micrometeorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.
- ii. AAQ data (except monsoon) at 8 locations for PM10, PM2.5, SO2, NOX, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the predominant wind direction, population zone and sensitive receptors including reserved forests.
- iti. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQQM Notification of Nov. 2009 along with min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.
- iv. Surface water quality of nearby River (100m upstream and downstream of discharge point) and other surface drains at eight locations as per CPCB/MoEF&CC guidelines.
- Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF&CC, if yes give details
- vi. Ground water monitoring at minimum at 8 locations shall be included.
- vii. Noise levels monitoring at 8 locations within the study area.
- viii. Soil Characteristic as per CPCB guidelines.
- ix. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
- x. Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule-I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.
- xi. Socio-economic status of the study area.

# Impact and Environment Management Plan

- Assessment of ground level concentration of pollutants from the stack emission based on site specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modeling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be assessed Details of the model used and the input data used for modeling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.
- Water Quality modeling in case of discharge in water body.
- iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor cum-rail transport shall be examined.
- A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.
- Details of stack emission and action plan for control of emissions to meet standards.
- vi. Measures for fugitive emission control.
- vii. Details of hazardous waste generation and their storage, utilization and management. Copies of MOU regarding utilization of solid and hazardous waste in cement plant shall also be included. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
- viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.
- ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation.

planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.

- X. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.
- xi. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.
- xii. Action plan for post-project environmental monitoring shall be submitted.
- xiii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

### Occupational Health:-

- Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers.
- ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre designed format, chest x rays. Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre placement and periodical examinations give the details of the same. Details regarding last month analyzed data of above mentioned parameters as per age, sex, duration of exposure and department wise.
- Details of existing Occupational & Safety Hazards. What are the exposure levels of hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved.
- ov. Annual report of heath status of workers with special reference to Occupational Health and Safety.

### Corporate Environment Policy;

- Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EJA report.
- Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
- What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.
- iv. Does the company have system of reporting of non compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report
- 10. Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to he provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.

## 11. Enterprise Social Commitment (ESC):-

- i. Adequate funds (at least 2.5 % of the project cost) shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and itemwise details along with time bound action plan shall be included. Socioeconomic development activities need to be elaborated upon
- 12. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.
- 13. A tabular chart with index for point wise compliance of above TOR.

### II. Specific Terms of Reference for EIA Studies for Distillery

- List of existing distillery units in the study area along with their capacity and sourcing of raw material.
- Number of working days of the distillery unit.
- Details of raw materials such as molasses/grains, their source with availability.
- 4 Details of the use of sleam from the boiler
- Surface and Ground water quality around proposed spent wash storage lagoon, and compost yard.
- 6. Plan to reduce spent wash generation within 6-8 KL/KL of alcohol produced.
- Proposed effluent treatment system for molasses/grain based distillery (spent wash, spent lees, condensate and utilities) as well as domestic sewage and scheme for achieving zero effluent discharge (ZLD).
- Proposed action to restrict fresh water consumption within 10 KL/KL of alcohol
  production.
- Details about capacity of spent wash holding tank, material used, design consideration. No. of peizometers to be proposed around spent wash holding tank.
- Action plan to control ground water pollution.
- Details of solid waste management including management of boiler ash, yeast, etc.
   Details of incinerated spent wash ash generation and its disposal.
- Details of bio-composting yard (if applicable).
- Action plan to control odour pollution.
- Arrangements for installation of continuous online monitoring system (24x7 monitoring device)

## Annexure - K- (Stone Mining Project - ToR)

## I. Standard Terms of Reference Condition

- A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given.
- 2. All documents including approved mine plan, EIA and Public Hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management, mining technology etc and should be in the name of the lessee
- 3. All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/ toposheet, topographic sheet, geomorphology and geology of the area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone)
- 4. Information should be provided in Survey of India Toposheet in 1:50,000 scale indicating geological map of the area, geomorphology of land forms of the area, existing minerals and mining history of the area, important water bodies, streams and rivers and soil characteristics.
- Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use policy of the State; land diversion for mining should have approval from State land use board or the concerned authority.
- 6. It should be clearly stated whether the proponent Company has a well taid down Environment Policy approved by its Board of Directors? If so, it may be spelt out in the EIA Report with description of the presembed operating process/procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? The hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large, may also be detailed in the EIA Report.

- 7. Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided.
- 8. The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EtA such as waste generation etc. should be for the life of the mine / lease period.
- 9. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
- 10. Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given.
- 11. A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.
- 12. Status of forestry clearance for the broken up area and virgin forestland involved in the Project including deposition of net present value (NPV) and compensatory afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.
- Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act. 2006 should be indicated.

- 14. The vegetation in the RP / PF areas in the study area, with necessary details, should be given.
- 15. A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted.
- 16. Location of National Parks. Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger / Elephant Reserves / (existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy famished
- 17. A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, the necessary plan along with budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.
- 18. Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Department should be secured and famished to the effect that the proposed mining activities could be considered.
- R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resentlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based

sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report.

- One season (non-monsoon) [i.e. March-May (Summer Season); October-December (post monsoon season), December-February (winter season)]primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fatina shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM<sub>10</sub>, particularly for free silves, should be given.
- 21. Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area using US EAP AERMOD model. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used, and input parameters (including emission inventories) used for modeling should be provided/uploaded along with the softcopies of model input, output and meteorological files in a model compatible format so that the model can be run a SEAC. The air quality contours should be shown on a location map clearly indicating the location of the site, ambient air quality location, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction should also be indicated on the contour map (isopleth).
- 22. The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.
- 23 Necessary elearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.

- 24. Description of water conservation measures proposed to be adopted in the Project should be given. Details of tainwater harvesting proposed in the Project, if any, should be provided.
- 25. Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary sufeguard measures, if any required, should be provided.
- 26. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report interalia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working helow ground water and for pumping of ground water should also be obtained and copy furnished.
- 27. Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out.
- 28. Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.
- A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.

- 30. Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct impact of Transportation study as per Indian Road Congress Gaidelines.
- Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.
- 32. Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.
- Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
- 34. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
- 35. Measures of socio economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
- 36. Detailed environmental management plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use. less of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project.
- Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement

the same should be provided and also incorporated in the final ELA/EMP Report of the Project

- 38. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
- 39. The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
- A Disaster management Plan shall be prepared and included in the BJA/EMP Report.
- Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc
- 42. Besides the above, the below mentioned general points are also to be followed:
  - a) Executive Summary of the ETA/EMP Report.
  - All documents to be properly referenced with index and continuous page numbering.
  - c) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.
  - d) Project Proponent shall enclose all the analysis/lesting reports of water, air, soil, noise etc. using the MoEF&CC / NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the Project.
  - e) Where the documents provided are in a language other than English, an English translation should be provided.
  - f) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.
  - g) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF&CC vide O.M. No. J-11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed.

- h) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with then revised documentation.
- i) As per the circular no. J-11011/618/2010-IA.II(I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project, should be obtained from the Regional Office of Ministry of Environment. Forest and Climate Change, as may be applicable.
- j) The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.

## Annexure - L- (Common Bio Medical Waste - ToR)

- Justification for selecting the proposed capacity of the incineration facility.
- Establishment of the facility as per Bio Medial Waste Management Rules ,2016 as amended.
- Land requirement for the facility including its break up for various purposes, its availability and optimization.
- 4. Details of proposed layout clearly demarcating various activities such as security, Waste Storage Rooms, Waste Treatment Equipment Rooms/Areas, Treated Waste Storage Room, Pollution Control Devices like APCS and ETP, ash storage/disposal area, vehicle washing areas, and others such as admin area, worker's room, health centres, greenbelt, etc.
- Details on collection and transportation of Bio Medical Wastes from health care establishments. No. of vehicles and feature of vehicles, etc.
- Details of waste storage facilities/rooms.
- Details of the treatment equipment's capacity and make.
- 8. Details of the incineration system
- The CPCB guidelines for common bio medical waste treatment facilities in respect
  of waste feed cutoffs, operating parameters of combustion chambers, flue gas
  cleaning, ash handling, etc.
- 10. Details on fuel requirement for incineration
- Details on flue gas emissions discharge through stack and proposed pollution control technologies.
- 12. Details on residue/ash generation and management.
- 13. Details of waste heat utilization, if any.
- 14. Details on wastewater management.
- Details of the proposed overall safety and health protection measures.
- 16. Details on source of water and power to the facility.
- Details of the existing access road(s)/walkways to the designed operations in the site and its layout.
- Location of the incineration facility and nearest human habitation with distances from the facility to be demarcated on a toposheet (1: 50000 scale).

- Land use map based on satellite imagery including location specific sensitivities such as national parks / wildlife sanctuary, villages, industries, ground water table etc.
- 20. Topography details.
- 2). Surface water quality of nearby water bodies.
- Details on proposed groundwater mountaring wells, locations, frequency of monitoring, parameters, etc.
- Action plan for the greenbelt development in accordance to CPCB published guidelines.
- 24. Details on pollution control technologies and online monitoring equipments.
- 25. Details on monitoring of pollutants at source -performance of the incinerator, including operating hours, fuel consumption, operating parameters (Combustion chamber temperature, pressure, Stack temperature, total particulate matter, HCI, NOx as per Bio Medial Waste Management Rules 2016 as amended.
- Stack and fugitive emissions may be monitored for SPM, HCL & NO-2 as per Bio Medial Waste Management Rules 2016 as amended.
- 27. Specific programme to monitor safety and health protection of workers.
- 28. Details of Administrative and technical organizational structure.
- EMP devised to mitigate the adverse impacts of the project should be provided
  along with item-wise cost of its implementation (Capital and recurring costs).
- 30. Permission for water requirement
- The Project Proponent is required to conduct public hearing as per EIA notification,
   2006.
- 32. Fresh base line data to be generated for EIA/EMP preparation. One season (non-monsoon) [i.e. March-May (Summer Season); October-December (post monsoon season); December-February (winter season)]primary baseline data on ambient air quality as per CPCB Notification of 2009 and its amendmennts, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EtA and EMP Report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors.
- Fund allocation for Corporate Environment Responsibility (CER) shall be made as per Ministry's O.M. No. 22-65/2017-IA.III dated 1St May, 2018 for various

- activities therein. The details of fund allocation and activities for CER shall be incorporated in EIA/EMP report.
- 34. Waste water shall be treated in in-house ETP and the treated wastewater shall be continuously re-circulated to full fill the water requirement of Air Pollution Control Devices (APCDs) attached to the incinerator(s)
- 35. List of waste to be handled and their source along with mode of transportation.
- Layout maps of proposed common Bio-Medical waste treatment facility indicating storage area, plant area, green belt area, utilities, etc.
- 37. Details of drainage of the project site upto 5 km radius of the study area. If the site is within 1 km radius of any major river, peak and lean seasonal river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of Flood level of the project site and maximum flood level of the river shall also be provided.
- 38. Leachate Study Report and detailed leachate management plan to be incorporated.
- Action Plan for measures to be taken for excessive leachate generation during monseon period.
- 40. The BIA documents shall be printed on both sides, as far as possible.
- 41. All documents should be properly indexed, page numbered.
- 42. Period/dated of data collection should be clearly indicated.
- 43. Examine the deatils of monitoring of Dixon and Furon.
- 44 MoU for disposal of ash through the TSDF.
- 45. Examine and submit details of montoring of water quality around the landfill site.
- Details of the emergency preparedness plan and on-site & off-site disaster management plan.
- 47. The consultant involved in preparation of EIA/EMP report after accrediation with Quality Council of India / National accreditation beard of Education and Training (QCI/NABET) would need to include a certificate in this regard in the EIA/EMP reports prepared by them and data provided by other Orgination(s) Laboratories including their status of approvals, etc. Vide Notification of the MoEF&CC dated 19.07.2013 as amended.

