

30/06/2021



Ref No.: GCNEP/2021/06-90

भारत सरकार / Govt. of India  
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय  
Min. of Environment, Forest & Climate Change  
बेज नं. 24-25, सेक्टर 31-ए  
Bays No. 24-25, Sec- 31 A  
चण्डीगढ़/Chandigarh

Date: 24/06/2021

To,

The Advisor,  
Ministry of Environment, Forest and Climate Change (Northern Region)  
Bays No: 24-25, Sector-31 A,  
Dakshin Marg, Chandigarh-160030

**Sub:** Half Yearly Compliance Report (Session: October 2020 to March 2021) of stipulated Environmental Conditions/ Safeguards in the Environmental Clearance Letter and Environmental Monitoring Report Expansion of Institutional Campus and Residential Township for Global Centre for Nuclear Energy Partnership (GCNEP) at Village- Kheri Jasaur and Jasaur Kheri, District- Jhajjar, Haryana by GCNEP

**Ref:** 1. Environmental Clearance No. SEIAA/HR/2018/231 dated 04.04.2018.  
2. F.NO: 16-89/2018 (ENV)/333 dated 14.05.2019

Dear Sir,

This has reference to the EC vide letter no. SEIAA/HR/2018/231 dated 04.04.2018. In this regard, we are submitting hereby compliance report of stipulated conditions mentioned in the EC for your kind perusal for **submission period of June, 2021.**

In view of the above, information/documents are enclosed as follow

1. Point-wise compliance of the stipulated environmental condition/safeguards.
2. Environmental Quality Monitoring & Analysis Reports.
3. Supporting Documents

Thanking You,

**Global Center for Nuclear Energy Partnership**

(Authorized Signatory)

  
24/06/2021

Name - Shrikrishna Gupta  
Designation - Project Director श्रीकृष्ण गुप्ता / SHRIKRISHNA GUPTA  
E-mail - pd@gcneep.gov.in परियोजना निदेशक / Project Director  
Contact No. - 011-23014587 वैश्विक नाभिकीय ऊर्जा साझेदारी केन्द्र (जी.सी.एन.ई.पी.)  
Global Centre for Nuclear Energy Partnership (G.C.N.E.P.)  
प.ऊ.वि., भारत सरकार / D.A.E., Government of India  
बहादुरगढ़ (हरियाणा) / Bahadurgarh (Haryana) - 124507

Copy to:

1. The Member Secretary Haryana State Pollution Control Board, Panchkula, Haryana.
- ✓ 2. The Member Secretary SEIAA, Bays no. 55-58, Parytan Bhawan, 1<sup>st</sup> Floor, Sector-2, Panchkula, Haryana

Ref No.: GCNEP/2021/06-90

Date: 24/06/2021

To,

The Advisor,  
Ministry of Environment, Forest and Climate Change (Northern Region)  
Bays No: 24-25, Sector-31 A,  
Dakshin Marg, Chandigarh-160030

**Sub:** Half Yearly Compliance Report (Session: October 2020 to March 2021) of stipulated Environmental Conditions/ Safeguards in the Environmental Clearance Letter and Environmental Monitoring Report Expansion of Institutional Campus and Residential Township for Global Centre for Nuclear Energy Partnership (GCNEP) at Village- Kheri Jasaur and Jasaur Kheri, District- Jhajjar, Haryana by GCNEP

**Ref:** 1. Environmental Clearance No. SEIAA/HR/2018/231 dated 04.04.2018.  
2. F.NO: 16-89/2018 (ENV)/333 dated 14.05.2019

Dear Sir,

This has reference to the EC vide letter no. **SEIAA/HR/2018/231 dated 04.04.2018**. In this regard, we are submitting hereby compliance report of stipulated conditions mentioned in the EC for your kind perusal for **submission period of June, 2021**.

In view of the above, information/documents are enclosed as follow

1. Point-wise compliance of the stipulated environmental condition/safeguards.
2. Environmental Quality Monitoring & Analysis Reports.
3. Supporting Documents

Thanking You,

Global Center for Nuclear Energy Partnership

(Authorized Signatory)

  
24/06/2021

Name - Shrikrishna Gupta  
Designation - Project Director श्रीकृष्ण गुप्ता / SHRIKRISHNA GUPTA  
E-mail - pd@gcnep.gov.in परियोजना निदेशक / Project Director  
Contact No. - 011-23014587 वैश्विक नाभिकीय ऊर्जा साझेदारी केन्द्र (जी.सी.एन.ई.पी.)  
Global Centre for Nuclear Energy Partnership (G.C.N.E.P.)  
प.ऊ.वि., भारत सरकार / D.A.E., Government of India  
बहादुरगढ़ (हरियाणा) / Bahadurgarh (Haryana) - 124507

Copy to:

1. The Member Secretary Haryana State Pollution Control Board, Panchkula, Haryana.
- ✓ 2. The Member Secretary SEIAA, Bays no. 55-58, Parytan Bhawan, 1<sup>st</sup> Floor, Sector-2, Panchkula, Haryana



Ref No.: GCNEP/2021/06-90

Date: 24/06/2021

To,

The Advisor,  
Ministry of Environment, Forest and Climate Change (Northern Region)  
Bays No: 24-25, Sector-31 A,  
Dakshin Marg, Chandigarh-160030

**Sub:** Half Yearly Compliance Report (Session: October 2020 to March 2021) of stipulated Environmental Conditions/ Safeguards in the Environmental Clearance Letter and Environmental Monitoring Report Expansion of Institutional Campus and Residential Township for Global Centre for Nuclear Energy Partnership (GCNEP) at Village- Kheri Jasaur and Jasaur Kheri, District- Jhajjar, Haryana by GCNEP

**Ref:** 1. Environmental Clearance No. SEIAA/HR/2018/231 dated 04.04.2018.  
2. F.NO: 16-89/2018 (ENV)/333 dated 14.05.2019

Dear Sir,

This has reference to the EC vide letter no. SEIAA/HR/2018/231 dated 04.04.2018. In this regard, we are submitting hereby compliance report of stipulated conditions mentioned in the EC for your kind perusal for **submission period of June, 2021.**

In view of the above, information/documents are enclosed as follow

1. Point-wise compliance of the stipulated environmental condition/safeguards.
2. Environmental Quality Monitoring & Analysis Reports.
3. Supporting Documents

Thanking You,

**Global Center for Nuclear Energy Partnership**

Haryana State Pollution Control Board  
C-11, Sector 6, Panchkula

(Authorized Signatory)

Name - Shrikrishna Gupta  
Designation - Project Director  
E-mail - pd@gcnep.gov.in  
Contact No. - 011-23014587

श्रीकृष्ण गुप्ता / SHRIKRISHNA GUPTA  
परियोजना निदेशक / Project Director  
वैश्विक नाभिकीय ऊर्जा साझेदारी केन्द्र (जी.सी.एन.ई.पी.)  
Global Centre for Nuclear Energy Partnership (G.C.N.E.P.)  
प.ऊ.वि., भारत सरकार / D.A.E., Government of India  
बहादुरगढ़ (हरियाणा) / Bahadurgarh (Haryana) - 124507

Copy to:

1. The Member Secretary Haryana State Pollution Control Board, Panchkula, Haryana.
2. The Member Secretary SEIAA, Bays no. 55-58, Parytan Bhawan, 1<sup>st</sup> Floor, Sector-2, Panchkula, Haryana

Ref No.: GCNEP/2021/06-90

Date: 24/06/2021

To,

The Advisor,  
Ministry of Environment, Forest and Climate Change (Northern Region)  
Bays No: 24-25, Sector-31 A,  
Dakshin Marg, Chandigarh-160030

**Sub:** Half Yearly Compliance Report (Session: October 2020 to March 2021) of stipulated Environmental Conditions/ Safeguards in the Environmental Clearance Letter and Environmental Monitoring Report Expansion of Institutional Campus and Residential Township for Global Centre for Nuclear Energy Partnership (GCNEP) at Village- Kheri Jasaur and Jasaur Kheri, District- Jhajjar, Haryana by GCNEP

**Ref:** 1. Environmental Clearance No. SEIAA/HR/2018/231 dated 04.04.2018.  
2. F.NO: 16-89/2018 (ENV)/333 dated 14.05.2019

Dear Sir,

This has reference to the EC vide letter no. SEIAA/HR/2018/231 dated 04.04.2018. In this regard, we are submitting hereby compliance report of stipulated conditions mentioned in the EC for your kind perusal for **submission period of June, 2021.**

In view of the above, information/documents are enclosed as follow

1. Point-wise compliance of the stipulated environmental condition/safeguards.
2. Environmental Quality Monitoring & Analysis Reports.
3. Supporting Documents

Thanking You,

**Global Center for Nuclear Energy Partnership**

(Authorized Signatory)

  
24/06/2021

Name - Shrikrishna Gupta  
Designation - Project Director  
E-mail - pd@gcnepest.gov.in  
Contact No. - 011-23014587

श्रीकृष्ण गुप्ता / SHRIKRISHNA GUPTA  
परियोजना निदेशक / Project Director  
वैश्विक नाभिकीय ऊर्जा साझेदारी केन्द्र (जी.सी.एन.ई.पी.)  
Global Centre for Nuclear Energy Partnership (G.C.N.E.P.)  
प.ऊ.वि., भारत सरकार / D.A.E., Government of India  
बहादुरगढ़ (हरियाणा) / Bahadurgarh (Haryana) - 124507

Copy to:

1. The Member Secretary Haryana State Pollution Control Board, Panchkula, Haryana.
2. The Member Secretary SEIAA, Bays no. 55-58, Parytan Bhawan, 1<sup>st</sup> Floor, Sector-2, Panchkula, Haryana

HALF YEARLY COMPLIANCE OF STIPULATED  
ENVIRONMENTAL CONDITIONS  
AS PER THE ENVIRONMENTAL CLEARANCE  
LETTER NO. SEIAA/HR/2018/231  
DATED 4<sup>TH</sup> April 2018

FOR  
EXPANSION OF INSTITUTIONAL CAMPUS  
AND RESIDENTIAL TOWNSHIP FOR  
GLOBAL CENTER FOR NUCLEAR ENERGY  
PARTNERSHIP (GCNEP) AT  
VILLAGE-KHERI JASOUR AND JASOUR KHERI,  
DISTT.JHAJJAR, HARYANA





PART A- SPECIFIC CONDITION: CONSTRUCTION PHASE

**Condition 1: "Consent to Establish" shall be obtained from Haryana State Pollution Control Board under Air and water act and a copy shall be submitted to the SEIAA Haryana before the start of any construction work at the site.**

Reply: Consent to Establish has been obtained from Haryana State Pollution Control Board for "Consent to Establish" under Air and Water Act vide letter no. HSPCB/Consent/:329962318JHACTE55066 Dated 03.10.2018, copy of CTE is enclosed as **Annexure-I**. CTE extension has been obtained for the period from 03.10.18 to 03.04.2025.

**Condition-2: A first aid room as proposed in the project report shall be provided both during construction and operation phase of the project.**

Reply: Agreed. First Aid Room is provided at site by the Contractor. First Aid Facilities are available at DCS&EM Site Office. In case of Snake bite, the treatment can be availed from village hospital for which the facility is available at hospital. Emergency vehicles are available at site during working hours. We are doing routine medical check-up for the labors those who are working at the construction site. Photograph showing First Aid room is attached as **Annexure -II**

**Condition 3: Adequate drinking water and sanitary facilities should be provided for construction workers at the site. Provision should be made for mobile toilets. Open defecation by the labourers is strictly prohibited. The safe disposal of waste water and solid wastes generated during the construction phase should be ensured.**

Reply: Agreed. Adequate Drinking water facility is being provided at Labour Hutments. Sanitary arrangements are also provided at labour Hutment Area & Site Offices. The open defecation by the labour is strictly prohibited. The wastewater generated during construction phase is being sent to the septic tanks. Photographs showing drinking water facility, toilet and septic tank are attached as **Annexure-III**.

Left over cement and mortar, cement concrete blocks, aggregates, sand and other inorganic material are being recycled. Solid waste management plan is enclosed as **Annexure-IV**.

**Condition 4: All topsoil excavated during construction activities should be stored for use in horticulture/ landscape development within the project site.**

Reply: Agreed. Excavated topsoil is being preserved separately which will be used for landscaping. Small landscaping made in front of the office is made of topsoil of Guest House Building. Photographs showing the topsoil storage is enclosed as **Annexure-V**.

**Condition 5: The project proponent should ensure that the building material used in the construction phase should be stored within the project area and disposal of construction waste should not create**

any adverse effect on the neighboring and should be disposed of after taking necessary precautions for general safety and health aspects of the people, only in the approved sites with the approval of competent authority.

Reply: Agreed. No significant muck excavation is being done at the project site, construction materials are being properly stored within project site. Cement Godown for Cement Storage is available. Store room at Township site is made. Store room at campus site is provided, and RMC plant with partition is also made. Photograph showing covered construction material enclosed as Annexure-VI.

**Condition-6: Construction spoils, including bituminous materials and other hazardous materials must not be allowed to contamination of watercourses and the dump site for such materials must be secured so that they should not leak into groundwater and any hazardous waste generated during construction phase should be disposed of as per applicable rules and norms with necessary approval of Haryana State Pollution Control Board.**

Reply: Agreed. Construction spoils such as bituminous material and other hazardous material are not allowed to contaminate water course, dumpsite is being provided inside the boundary of the project site. Hazardous waste generated during construction phase, is being disposed of as per applicable rules and norms.

**Condition 7: The diesel generator sets to be used during construction phase should be of ultra low Sulphur diesel type and should conform to Environment (Protection) Rules prescribed for air and noise emission standard.**

Reply: Agreed. There is a provision of 4 No. of DG Sets of total 3000 KVA capacity (4x750 KVA) for institution campus and 2 no. of DG sets of total capacity 640 KVA (2x320 KVA) for residential township for power backup. DG sets will be equipped with acoustic enclosures to minimize noise generation and adequate stack height for proper dispersion. BS IV or better-quality furl will be used. During construction phase DG sets are enclosed in acoustic enclosed installed on the Finn base to minimize vibration and noise. Results of environmental monitoring carried out attached as Annexure VII.

**Condition 8: The diesel required for operating DG sets shall be stored in underground tanks if required clearance from Chief Controller of Explosive shall be taken.**

Reply: Agreed.

**Condition 9: Ambient noise levels should confirm to the residential standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase. Adequate measures should be taken to reduce ambient air and noise level during construction phase, so as to confirm stipulated residential standards of CPCB/MoEF.**

Reply: Agreed. Ambient noise level is monitored during day and night and is conforming to the standards. Adequate measures have been adopted to reduce ambient air quality pollution and noise level during construction phase.

**Condition 10: Fly ash shall be used as building materials in the construction as per the provision of Fly Ash Notification of September 1999 and amendment as on 27th August 2003.**

Reply: Fly ash based bricks are being used for construction of walls. All superstructure masonry works are being built using fly ash bricks. Photographs attached as Annexure VIII.

**Condition 11: Storm water control and its re-use as per CGWB and BIS standard for various applications should be ensured.**

Reply: Agreed. Standards of BIS and CGWB will be followed and water will be reused.

**Condition 12: Water demand during construction phase should be reduced by uses of pre-mixed concrete, curing agent and other best practices.**

Reply: Agreed and complied. RMC is being used for construction works. Photographs of batching plant enclosed as Annexure IX.

**Condition 13: Roof should meet prescribed requirements as per Energy Conservation Building Code by using appropriate thermal insulation material.**

Reply: Agreed. Insulation (50 mm thick Phenotherm board) is used as roof. Energy conservation details attached as Annexure X.

**Condition 14: Opaque wall should meet prescribed requirements as per energy conservation building code which is proposed to be mandatory for all air conditioned spaces while it is desirable for non air conditioned spaces by use of appropriate thermal insulation to fulfill the requirement.**

Reply: Agreed. Double walls are being constructed on all outer walls (230 mm+115 mm). Thermal insulation material is also provided between these walls.

**Condition 15: The approval of competent authority shall be obtained for structural safety of the building on account of earthquake, adequacy in firefighting equipment etc. as per National Building Code including protection measures for light etc. If any forest land is involved in the proposed site, clearance under Forest Conservation Act shall be obtained from competent Authority.**

Reply: Agreed. This is a project of Central Government, Department of Atomic Energy project. The project is conceived and detailed by in House designers, adhering to safety and design standards. No forest land is involved in the project. Forest NOC is attached as Annexure-XI.

**Condition 16: The project proponent as stated in the proposal shall construct 11 rainwater harvesting pits for recharging the ground water with in project premises. Rain water harvesting pits shall be designed to make provision for silting chamber and removal of floating matter before entering harvesting pit Maintenance budget and person responsible for maintenance must be provided. Care shall also be taken that contaminated water do not enter any RHW pit.**



Reply: We will construct 50 rainwater harvesting pits for reaching the ground water within the project premises. Rain water harvesting pits will be designed to make provisions for silting chamber and removal of floating matter before entering harvesting pits.

**Condition 17: The project proponent shall provide for adequate fire safety measures and equipment as required by Haryana Fire Service Act, 2009 and instructions issued by the local Authority/Directorate of fire from time to time. Further the project proponent shall take necessary permission regarding fire safety scheme/NOC from competent Authority as required.**

Reply: Agreed. Fire doors are constructed at staircases, guest house corridor, electrical panel rooms and AHU Rooms. Smoke detector and wet risers with booster pumps and all firefighting accessories are available. Fire NOC attached as **Annexure XII**.

**Condition 18: The project proponent shall submit assurance from the HBVNL for supply of 6700 KVA (5000 KVA for Institute campus & 1700 KVA for Residential Township project) of power supply before the start of construction. In no case project will be operational solely on generators without any power supply from any external power utility.**

Reply: Agreed. We have already obtained assurance from the UHBVNL for supply of 6700 KVA of power supply. Same is enclosed as **Annexure-XIII**.

**Condition 19: Detail calculation of power load and ultimate power load of the project shall be submitted to HBVNL under intimation to SEIAA Haryana before the start of the construction. Provisions shall be made for electrical infrastructure in the project area.**

Reply: Agreed. We have already obtained required permission from HBVNL for supply of 6700 KVA power load for the Institution campus and residential township project.

**Condition 20: The project proponent shall not raise any construction in the natural land depression/ Nallah/ Water course and shall ensure that the natural flow from the Nallah/ Water course is not obstructed.**

Reply: Agreed. Irrigation channel is preserved by fencing works. Hume pipes are laid where ever is necessary. Village panchayat has taken to divert the drainage water from campus site. Additional storm water drain is constructed along the by-pass road at campus site.

**Condition 21: The Project Proponent shall keep the plinth level of the building blocks sufficiently above the level of the approach road to the Project as per prescribed by-laws. Levels of the other areas in the Projects shall also be kept suitably so as to avoid flooding.**

Reply: Agreed. Plinth levels are kept well above surrounding levels (+101.45m). Level of approach road is kept above the maximum water level during rainy season.

**Condition 22: Construction shall be carried out so that density of population does not exceed norms approved by Director General Town and country Department, Haryana.**

Reply: Density of population will not exceed norms approved by Director General Town and Country Department Haryana due to construction of project.

**Condition 23: The project proponent shall submit an affidavit with the declaration that ground water will not be used for construction and only the treated water should be used for construction.**

Reply: No Borewell is dug at site for construction purpose. We are a government organization. We have submitted an undertaking stating that we will not use Ground water for construction, enclosed as Annexure XIV.

**Condition 24: The project proponent shall not cut any existing tree in the project area and project landscaping plan should be modified to include those trees in the green area**

Reply: Agreed. There is no requirement of cutting the trees. Only small bushes have been cleared for construction activity.

**Condition 25: The project shall ensure that ECBC norms for composite climate zone are met. In particular building envelope, HVAC service, water heating, pumping, lighting and electrical infrastructure must meet ECBC norm.**

Reply: Agreed. ECBC norms will be met. Building envelope, HVAC service, water heating, pumping, lighting electrical infrastructure will all be in energy efficient way and meet Energy conservation Building Code norms. LED/ CFL Fixture are used. Air conditions are working on R-410 A.

**Condition 26: The project proponent shall provide 3 meter high barricade around the project area, dust screen for every floor above the ground, proper sprinkling and covering of stored material to restrict dust and air pollution during construction.**

Reply: Agreed. Masonry boundary wall is constructed all around the site and water sprinkling is being done to restrict dust and air pollution during construction. Photographs attached as Annexure XV and XVI respectively.

**Condition 27: The project proponent shall construct a sedimentation basin in the lower level of the project site to trap pollutant and other wastes during rains.**

Reply: Agreed. Sedimentation basin will be constructed.

**Condition 28: The project proponent shall provide Rasta of proper width and proper strength for each project before the start of construction.**

Reply: We will provide proper Rasta of proper width and proper strength for the project before the start of construction work at project site.

**Condition 29: The project proponent shall ensure that the U-value of the glass is less than 3.177 and maximum solar heat gain co-efficient is 0.25 for vertical fenestration.**

Reply: Agreed. Hermetically sealed 38mm thick (12mm SGG cool lite platinum toughened glass + 18mm air gap+mm inner glass) with low U value glass for all structural glazing work is being used.

**Condition 30: The project proponent shall adequately control construction dust like silica dust, non-silica dust, and wood dust. Such dusts shall not spread outside the project premises. The project proponent shall provide respiratory protective equipment to all construction workers.**

Reply: Agreed. Proper measures are being taken to control dust on the site like water sprinkling, covering construction material vehicles, etc. Photographs of dust suppression enclosed as **Annexure XVI**. Site barricading is being done to prevent dust from spreading outside premises, photos enclosed as **Annexure XV**.

**Condition 31: The project proponent shall provide fire control room and fire officer for building above 30 meters as per National Building code.**

Reply: The height of institutional and residential building is G+2, The height of the building will not be raised above 30m.

**Condition 32: The project proponent shall obtain permission of Mines and Geology Department for excavation of soil before the start of construction.**

Reply: There is no basement provided on the project. If required at any stage. We will obtain permission from concerned department.

**Condition 33: The project proponent shall seek specific prior approval from concerned local Authority /HUDA regarding provision of storm drainage and sewerage system including their integration with external services of HUDA/Local authorities beside other required services before taking up any construction activity.**

Reply: Agreed.

**Condition 34: The site for solid waste management plant is earmarked on the layout plan and the detailed project for setting up the solid waste management plant shall be submitted to the Authority within one month.**

Reply: The site for solid waste plant has been earmarked on the layout plan. The same will be provided before operational stage. Site plan attached as **Annexure XVII**.

**Condition 35: The Project proponent shall discharge excess of treated waste water/storm water in the public drainage system and shall seek permission of HUDA before the start of construction.**

Reply: we will discharge excess of treated waste/storm water in the public drainage system. Application will be submitted to HUDA for drainage connection.

**Condition 36: The project proponent shall ensure that structural stability to withstand earthquake of magnitude 8.5 on Richter scale.**

Reply: The project is conceived and detailed by in house designers adhering to in vogue safety and design standards. All measures are being taken to ensure that building is earthquake resistant. All provisions of IS 1893 and IS 13920 are being followed in the structural design.

**SPECIFIC CONDITIONS: OPERATIONAL PHASE**

**Condition a: "Consent to Operate" shall be obtained from Haryana State Pollution Control Board under air and water act and a copy shall be submitted to the SEIAA, Haryana.**

Reply: Agreed. We will obtain Consent to operate for Expansion of GCNEP (Institute and Township) from Haryana State Pollution Control Board for "Consent to Operate" under Air and Water Act after completion of the construction work at the project site.

**Condition b: The Sewage Treatment Plant (STP) should be installed for the treatment to the prescribed standards including odour and treated effluent sll be recycled to achieve zero exit discharge. The installation of STP should be certified by an independent expert and a report in this regard should be submitted to SEIAA, Haryana before the project is commissioned for operation. Tertiary treatment of waste water is mandatory. The project proponent shall remove not only ortho- phosphorus but total phosphorus to the extent of less than 2mg/lit. Similarly total Nitrogen level shall be less than 2mg/lit in tertiary treated waste water. Discharge of treated sewage shall confirm to the norms and standards of HSPCB, Panchkula. The project proponent shall implement such STP technology which does not require filter backwash.**

Reply: Agreed. STP will be designed by specialized engineers of the Department. Tertiary treatment of waste water will be done, and the treated water will be reused in the project for horticulture and flushing.

**Condition c: Separation of black and grey water should be done by use of dual plumbing line. Treatment of 100% grey water by decentralized treatment should be done ensuring that the re-circulated water should have BOD maximum 10 mg/litre and the recycled water will be used for flushing, gardening and DG set cooling etc. to achieve zero exit discharge.**

Reply: Agreed. Dual Plumbing line will be used. The treated water from STP will be reused in the project for flushing and landscaping purposes.

**Condition d: For disinfections of treated waste water ultra-violet radiation or ionization process should be used**

Reply: Agreed. For disinfection of the treated water, ultra violet radiation will be used.

**Condition e: Diesel power generating sets proposed as source of backup power for lifts, common areas illumination and for domestic use should be of enclosed type and confirm to the rule made under Environment Protection Act, 1986. The location of DG sets should be in the basement as promised by the project proponent with appropriate stack height i.e. above the roof level as per the**



**CPCB norms. The diesel used for DG shall be ultra low sulphur content (35ppmsulphur), instead of low sulphur diesel.**

**Reply:** Agreed. DG sets to be used for power backup will be of enclosed type and will confirm to EP Act 1986. The DG sets will run of BS IV or better fuel.

**Condition f: Ambient Noise level should be controlled to ensure that it does not exceed the prescribed standards both within and at the boundary of Proposed Institutional campus & Residential Township:**

**Reply:** Agreed. Proper mitigation measures as suggested in the EMP to control high noise levels will be ensured.

**Condition g: The project proponent as stated in the proposal shall maintain at least 30.57% for institutional campus and 31.57% for residential township as green cover area for tree plantation especially all around the periphery of the project and on the road sides preferably with local species so as to provide protection against suspended particulates matter and noise. The open spaces inside the plot should be preferably landscaped and covered with vegetation/grass. Herbs & shrubs. Only locally available plant species shall be used.**

**Reply:** Agreed.

**Condition h: The project proponent shall strive to minimize water in irrigation by minimizing the grass area, using native verity, xeriscaping and mulching, utilizing efficient irrigation system, scheduling irrigation only after checking vapor-transpiration data.**

**Reply:** Agreed. Water minimization will be done during the operation phase.

**Condition i: The ground water level and its quality should be monitored regularly in consultation with Central Ground Water Authority.**

**Reply:** Agreed.

**Condition j: A report on energy conservation measures conforming to energy conservations norms finalize by bureau of energy efficiency should be prepared incorporating details about building materials & technology, "R & U factors etc" and submit to IA division of environment and forest department, Haryana in three months time.**

**Reply:** Agreed.

**Condition k: Energy conservation measures like installation of LED for the lighting the area outside the building should be integral part of the projects design and should be in place before project commissioning. Use of solar panels must be adapted to the maximum energy conversion**

**Reply:** Agreed.



श्रीकृष्ण गुप्ता / SHRIKRISHNA GUPTA  
परियोजना निदेशक / Project Director  
वैश्विक नाभिकीय ऊर्जा साझेदारी केंद्र (जी.सी.एन.ई.पी.)  
Global Centre for Nuclear Energy Partnership (G.C.N.E.P.)  
प.ऊ.वि., भारत सरकार / D.A.E., Government of India  
बहादुरगढ़ (हरियाणा) / Bahadurgarh (Haryana) - 126017



**Condition l:** The project proponent shall use zero ozone depleting potential material in the insulation, refrigeration, air-conditioning and adhesive. The project proponent shall also provide Halon free fire suppression system.

Reply: Agreed.

**Condition m:** The solid waste generated should be properly collected and segregated as per requirements of MSW rules, 2000. The bio-degradable waste should be treated by appropriate technology at the site ear marked with in the project area and dry/inert solid waste should be disposed off to the approved sites for land filling after recovering recyclable materials.

Reply: Agreed. Solid waste management Plan is attached as Annexure-IV

**Condition n:** The provision of the solar water heating system shall be as per the norms specified by HAREDA and shall be made operational in each building block.

Reply: Agreed.

**Condition o:** The traffic plan and the parking plan proposed by the project proponent should be adhered to meticulously with further scope of additional parking for future requirement. There should be no traffic congestion near the entry and exit points from the roads adjoining the proposed project site. Parking should be fully internalized and no public space should be used.

Reply: Agreed. Traffic cum parking plan enclosed as Annexure-XVIII

**Condition p:** The project shall be operationalized only when HUDA/local authority will provide domestic water supply system in the area.

Reply: Agreed.

**Condition q:** Operation and maintenance of STP, solid waste management and electrical Infrastructure, pollution control measures shall be ensured even after the completion of sale.

Reply: Agreed.

**Condition r:** Different type of wastes should be disposed off as per provisions of municipal solid waste, biomedical waste, hazardous waste, e waste, batteries & plastic rules made under Environment Protection Act, 1986, Particularly waste and battery waste shall be disposed off as per existing E waste Management rules 2011 and batteries management rules 2001. The project proponent should maintain a collection center for E-waste and it should be disposed of to only registered and authorized dismantler/recycler.

Reply: Agreed. MSW will be disposed off as per MSW Rules. Other wastes will be disposed off to authorized vendors as per prescribed rules of MoEF and CPCB.



श्रीकृष्ण गुप्ता / SHRIKRISHNA GUPTA  
परियोजना निदेशक / Project Director  
वैश्विक नाभिकीय ऊर्जा साझेदारी केन्द्र (जी.सी.एन.ई.पी.)  
Global Centre for Nuclear Energy Partnership (G.C.N.E.P.)  
महानि. भारत सरकार / D.A.E., Government of India  
बहादुरगढ़ (हरियाणा) / Bahadurgarh (Haryana) - 125007

**Condition s: Standards for discharge of environmental pollutants as enshrined in various schedules of rule 3 of Environmental Protection Rule 1986 shall be strictly complied with.**

Reply: Agreed. As per Environment protection Rule 1986 standard for discharge of environment pollutant will be complied.

**Condition t: The project proponent shall make provision for guard pond and other provision for safety against failure in the operation of waste water treatment facilities. The project proponent shall also identify acceptable outfall for treated effluent.**

Reply: Agreed. During failure of STP, automatic valve will be drained out in sewerage system. Project will provide guard pond.

**Condition u: The project proponent shall ensure that the stack height of DG sets is as per the CPCB guide lines that the emission standards of noise and air are within the CPCB latest prescribed limits. Noise Level of D.G sets greater than 800 KVA shall be as per CPCB latest standard for high capacity D.G sets.**

Reply: Agreed.

**Condition v: All electric supply exceeds 100 amp, 3 phase shall maintain the power factor between 0.98 lag to 1 at the point of connection.**

Reply: Agreed.

**Condition w: The project proponent shall minimize heat island effect through shading and reflective or pervious surface instead of hard surface.**

Reply: Agreed. The Project proponent will minimize heat island effect through shading and reflective or pervious surface instead of hard surface.

**Condition x: The Project Proponent shall not use fresh water for HVAC and DG cooling. Air based HVAC system should be adopted and only treated water shall be used by project proponent for cooling, if it is at all needed. The Project Proponent shall also use evaporative cooling technology and double stage cooling system for HVAC in order to reduce water consumption. Further temperature, relative humidity during summer and winter seasons should be kept at optimum level. Variable speed drive, best Co-efficient of Performance, (CoP), as well as optimal integrated point load value and maximum outside fresh air supply may be resorted for conservation of power and waste. Coil type cooling DG Sets shall be used for saving cooling water consumption for water cooled DG Sets.**

Reply: Agreed.

**Condition y: The project proponent shall ensure that the transformer is constructed with high quality grain oriented, low loss silicon steel and virgin electrolyte grade copper. The project proponent shall obtain manufacturer's certificate also for that.**

Reply: Yes, Transformers from certified manufacturers will be used as per the requirements.

**Condition z: Water Supply shall be metered among different users and different utilities.**

Reply: We will meter different residential units and different utilities in operational phase.

**Condition aa: The project proponent shall ensure that exit velocity from the stack should be sufficiently high. Stack shall be designed in such a way that there is no stack down-water under any meteorological condition.**

Reply: Agreed. Stack will be designed in such a way that there will not be stack down wash under any meteorological conditions.

**Condition ab: The project proponent shall provide water sprinkling system in the project area to the suppress the dust in addition to the already suggested mitigation measures in the Air Environment Chapter of EMP.**

Reply: Agreed.

**Condition ac: The project proponent shall provide additional green area on terrace and roof top.**

Reply: Agreed.

**Condition ad: The Project Proponent shall ensure proper Air Ventilation and light system in the basement area for comfortable living of human being and shall ensure that number of air changes per hour (ACH) in basement never falls below 15. In case of emergency capacity for increasing ACH to the extent of 30 must be provided by the project proponent.**

Reply: Agreed.

**Condition ae: The project proponent shall install solar panel for energy conservation.**

Reply: Agreed.

  
श्रीकृष्ण गुप्ता / SHIKSHA GUPTA  
परियोजना निदेशक / Project Director  
वैश्विक नाभिकीय ऊर्जा साझेदारी केन्द्र (जी.सी.एन.ई.पी.)  
Global Centre for Nuclear Energy Partnership (G.C.N.E.P.)  
प.ऊ.पि., भारत सरकार / D.A.E., Government of India  
बहादुरगढ़ (हरियाणा) / Behadurgarh (Haryana) - 124507

## **PART B- GENERAL CONDITIONS**

**Condition 1:** The project proponent shall ensure the commitments made in Form-1, Form-1A, EIA/EMP and other documents submitted to the SEIAA for the protection of environment and proposed environmental safeguards are complied with in letter and spirit. In case of contradiction between two or more documents or any point, the most environment friendly commitment shall be taken as commitment by the project proponent.

Reply: The environment safeguards contained in the EIA/EMP Report are being implemented in letter and spirit.

**Condition 2:** The Project Proponent shall also submit Six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the northern Regional Office of MoEF, the respective Zonal Office of CPCB, HSPCB and SEIAA Haryana.

Reply: We are regularly submitting the semiannual environmental compliance report along with the monitoring details and lab reports in both soft and hard forms to the SEIAA and the regional office, MoEF. GOI, Northern region, Chandigarh.

**Condition 3:** STP outlet after stabilization and stack emission shall be monitored monthly. Other environmental parameters and green belt shall be monitored on quarterly basis. After every 3 months, the project proponent shall conduct environmental audit, and shall take corrective measures, if required, without any delay.

Reply: The environmental parameters will be monitored as per the guidelines.

**Condition 4:** The SEIAA, Haryana and reserve the right to add additional safeguards measures subsequently, if found necessary. Environmental clearance granted will be revoked if it is found that false information has been given for getting approval of this project. SEIAA reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction of SEIAA / MoEF.

Reply: Agreed.

**Condition 5:** The Project proponent shall not violate any judicial orders /pronouncements issued by court/Tribunal.

Reply: We will respect and not violate any judicial orders/ pronouncements issued by the Court / Tribunal.

**Condition 6:** All other statutory clearance such as approval for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980, and Wildlife (Protection) Act, 1972, Forest Act, 1927, PLPA 1900, etc. shall be obtained, as applicable by project proponent from the respective authorities prior to construction of the project.

Reply: All statutory clearance will be obtained. Copies of applicable NOC already obtained are attached in this report.

**Condition 7:** The project proponent shall inform the public that the project has been in accorded Environmental clearance by SEIAA and copies of the clearance letter are available with the State Pollution Control Board & SEIAA. This should be advertised within 7 days from date of issue of clearance letter at least in two local newspapers that are widely circulated in the region and copy of the same should be forwarded to SEIAA Haryana. A copy of environmental clearance conditions shall also be put on the project proponent's web site for public awareness.

Reply: Agreed. Advertisement copy is enclosed as Annexure-XIX

**Condition 8:** Under the provision of Environment (Protection) Act, 1986, legal action shall be initiated against the project proponents if it was found that construction of the projects has been started before obtaining prior Environmental Clearance.

Reply: Construction has been commenced only after obtained prior environmental clearance.

**Condition 9:** Any appeal against this Environmental Clearance shall lie with the National Green Tribunal, If preferred within in a period of 30 days as prescribed under section 16 of the National Green Tribunal Act, 2010.

Reply: Agreed.

**Condition 10:** The project proponent shall put in place corporate environment policy as mentioned in MoEF, GOI OM No. J-11013/4112006-IA II (I) dated 26.4.2012 within 3 months period. Latest Corporate Environment policy should be submitted to SEIAA within 3 months of issuance of this letter.

Reply: Corporate environmental policy is not applicable to us since we are Government of India Department. However, we are carrying out activities like infrastructure development in and around Jasaur and Kheri desalination plant, computer training center around Jhajjar and Anganwadis in and around Jhajjar. We have earmarked Rs. 219 lakhs for such developmental activities. We have already contributed Rs. 50 Lakhs for promoting education by construction Govt. Girls degree college at JasaurKheri, Bahadurgarh, Haryana.

**Condition 11:** The fund ear-marked for environment protection measures should be kept in separate account and should not be diverted for other purposes and year wise expenditure report should be submitted to the SEIAA/RO MoEF, GOI under rules prescribed for Environmental Audit.

Reply: Agreed. Funds earmarked for environment protection are kept in a separate account and will not be diverted for any other purpose.

**Condition 12:** The project proponent shall ensure the compliance of Forest Department, Haryana Notification no. S.O.121/PA2/1900/S.4/97 dated 28.11.1997.

Reply: Agreed.



**Condition 13:** The project proponent shall ensure that no vehicles during construction/ operation phase enter the project premises without valid 'Pollution under Control' certificate from competent Authority.

Reply: Entry of any vehicle without "Pollution under Control" will be prohibited.

**Condition 14:** The project proponent shall seek fresh Environment Clearance if at any stage there is change in the planning of the proposed project.

Reply: Agreed. We will seek for a new clearance for any modification in the project.

**Condition 15:** Nodal Officer (Project Director) nominated by GCNEP shall be responsible for implementation of all conditions of Environmental clearance letter.

Reply: Agreed.

**Condition 16:** The Proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective zonal office of CPCB and the SPCB. The criteria pollutant levels namely; PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>x</sub>, NO<sub>x</sub>, Ozone, Lead, CO, Benzene, Ammonia, Benzo-pyrene, Arsenic and Nickel. (Ambient level as well as Stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.

Reply: Agreed.

**Condition 17:** The Environmental Statement for each financial year ending 31<sup>st</sup> March in Form-v as is mandated to be submitted by the project proponent to the HSPCB Panchkula as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of the EC conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.

Reply: Agreed.

**Condition 18:** The Project Proponent shall conduct environment audit at every three months interval and thereafter corrected measures shall be taken without any delay. Details of environmental audit and corrective measures shall be submitted in the monitoring report.

Reply: Agreed.

**Condition 19:** The validity of this environment clearance letter is valid upto to 7 Years from the day to issuance of EC letter. The environment clearance conditions applicable till life space project in case of Residential project will continue to apply. The residential welfare association/ housing co-operative societies shall responsible to comply conditions laid down in EC. In case of violation the action would be taken as per e laid down law of land. compliance report should be sent to this office till the report.

Reply: Agreed.



**HARYANA STATE POLLUTION CONTROL BOARD**

**SCF No. 42 & 43, Shopping Centre, Sector-6, Huda, Bahadurgarh Ph. 01276-243077 (O)**

*Website: www.hspcb.gov.in E-Mail - hspcb.pkl@sifymail.com*

*Telephone No.: 0172-2577870-73*



No. HSPCB/Consent/ : 329962318JHACTE5554066

Dated:03/10/2018

To.

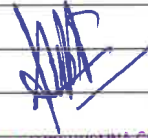
**M/s : Global Centre for Nuclear Energy Partnership (Institute and Township)**  
**Village Jasuar Kheri and Kheri Jasaur, Tel Bahadurgarh**  
**JHAJJAR**  
**124505**

**Sub. : Grant of consent to Establish to M/s Global Centre for Nuclear Energy Partnership (Institute and Township)**

Please refer to your application no. 5554066 received on dated 2018-08-27 in regional office Bahadurgarh.

With reference to your above application for consent to establish, M/s Global Centre for Nuclear Energy Partnership (Institute and Township) is here by granted consent as per following specification/Terms and conditions.

|   |   |
|---|---|
| <b>Consent Under</b>                            | AIR/WATER   |
| <b>Period of consent</b>                        | 03/10/2018 - 03/04/2025   |
| <b>Industry Type</b>                            | Building and construction project having waste water generation more than 100 KLD |
| <b>Category</b>                                 | RED   |
| <b>Investment(In Lakh)</b>                      | 81100.0   |
| <b>Total Land Area (Sq. meter)</b>              | 946600.3  |
| <b>Total Builtup Area (Sq. meter)</b>           | 92979.0   |
| <b>Quantity of effluent</b>                     |   |
| 1. Trade  | 202.0 KL/Day  |
| 2. Domestic                                     | 0.0 KL/Day  |
| <b>Number of outlets</b>                        | 1.0   |
| <b>Mode of discharge</b>                        |   |
| 1. Domestic                                     |   |
| 2. Trade  | through STP   |
| <b>Permissible Domestic Effluent Parameters</b> |   |
| 1. BOD  | 30 mg/l   |
| 2. COD  | 250 mg/l  |
| 3. TSS  | 100 mg/l  |
| 4. O&G  | 10 mg/l   |


  
श्रीकृष्ण गुप्ता / SHRIKRISHNA GUPTA  
परियोजना निदेशक / Project Director  
वैश्विक नाभिकीय ऊर्जा साझेदारी केंद्र (जी.सी.एन.ई.पी.)  
Global Centre for Nuclear Energy Partnership (G.C.N.E.P.)  
एन.डी. सायत सरकार / D.A.E., Government of India

| Permissible Trade Effluent Parameters |            |
|---------------------------------------|------------|
| 1. NA                                 | mg/l       |
| Number of stacks                      | 1          |
| Height of stack                       |            |
| 1. DG sets 6 no.                      | 6 meters   |
| Permissible Emission parameters       |            |
| 1. NA                                 |            |
| Capacity of boiler                    |            |
| 1. NA                                 | Ton/hr     |
| Type of Furnace                       |            |
| 1. NA                                 |            |
| Type of Fuel                          |            |
| 1. Diesel                             | 4.6 KL/day |

**Regional Officer, Bahadurgarh**  
Haryana State Pollution Control Board.

### Terms and conditions

1. The industry has declared that the quantity of effluent shall be 202 KL/Day i.e 0KL/Day for Trade Effluent, 0 KL/Day for Cooling, 202 KL/Day for Domestic and the same should not exceed .
2. The above 'Consent to Establish' is valid for 60 months from the date of its issue to be extended for another one year at the discretion of the Board or till the time the unit starts its trial production whichever is earlier. The unit will have to set up the plant and obtain consent during this period.
3. The officer/official of the Board shall have the right to access and inspection of the industry in connection with the various processes and the treatment facilities being provided simultaneously with the construction of building/machinery. The effluent should conform the effluent standards as applicable
4. That necessary arrangement shall be made by the industry for the control of Air Pollution before commissioning the plant. The emitted pollutants will meet the emission and other standards as laid/will be prescribed by the Board from time to time.
5. The applicant will obtain consent under section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21/22 of the Air (Prevention & Control of Pollution) Act, 1981 as amended to-date-even before starting trial production
6. The above Consent to Establish is further subject to the conditions that the unit complies with all the laws/rules/decisions and competent directions of the Board/Government and its functionaries in all respects before commissioning of the operation and during its actual working strictly.
7. No in-process or post-process objectionable emission or the effluent will be allowed, if the scheme furnished by the unit turns out to be defective in any actual experience
8. The Electricity Department will give only temporary connection and permanent connection to the unit will be given after verifying the consent granted by the Board, both under Water Act and Air Act.
9. Unit will raise the stack height of DG Set/Boiler as per Board's norms.
10. Unit will maintain proper logbook of Water meter/sub meter before/after commissioning.


  
 श्रीकृष्ण गुप्ता / SHRIKRISHNA GUPTA  
 परियोजना निदेशक / Project Director  
 वैश्विक नाभिकीय ऊर्जा साझेदारी केंद्र (जी.सी.एन.ई.पी.)  
 Global Centre for Nuclear Energy Partnership (G.C.N.E.P.)  
 Government of India



11. That in the case of an industry or any other process the activity is located in an area approved and that in case the activity is sited in an residential or institutional or commercial or agricultural area, the necessary permission for siting such industry and process in an residential or institutional or commercial or agricultural area or controlled area under Town and Country Planning laws CLU or Municipal laws has to be obtained from the competent Authority in law permitting this deviation and be submitted in original with the request for consent to operate.
12. That there is no discharge directly or indirectly from the unit or the process into any interstate river or Yamuna River or River Ghaggar.
13. That the industry or the unit concerned is not sited within any prohibited distances according to the Environmental Laws and Rules, Notification, Orders and Policies of Central Pollution control Board and Haryana State Pollution Control Board.
14. That of the unit is discharging its sewage or trade effluent into the public sewer meant to receive trade effluent from industries etc. then the permission of the Competent Authority owing and operating such public sewer giving permission letter to his unit shall be submitted at time of consent to operate.
15. That if at any time, there is adverse report from any adjoining neighbor or any other aggrieved party or Municipal Committee or Zila Parishad or any other public body against the unit's pollution; the Consent to Establish so granted shall be revoked.
16. That all the financial dues required under the rules and policies of the Board have been deposited in full by the unit for this Consent to Establish.
17. In case of change of name from previous Consent to Establish granted, fresh Consent to Establish fee shall be levied.
18. Industry should adopt water conservation measures to ensure minimum consumption of water in their Process. Ground water based proposals of new industries should get clearance from Central Ground Water Authority for scientific development of previous resource.
19. That the unit will take all other clearances from concerned agencies, whenever required.
20. That the unit will not change its process without the prior permission of the Board.
21. That the Consent to Establish so granted will be invalid, if the unit falls in Aravali Area or non conforming area.
22. That the unit will comply with the Hazardous Waste Management Rules and will also make the non-leachate pit for storage of Hazardous waste and will undertake not to dispose off the same except for pit in their own premises or with the authorized disposal authority.
23. That the unit will submit an undertaking that it will comply with all the specific and general conditions as imposed in the above Consent to Establish within 30 days failing which Consent to Establish will be revoked.
24. That unit will obtain EIA from MoEF, if required at any stage.
25. In case of unit does not comply with the above conditions within the stipulated period, Consent to Establish will be revoked.
26. That unit will obtain consent to operate from the board before the start of product activity.

#### **Specific Conditions**

#### **Other Conditions :**

  
श्रीकृष्ण गुप्ता / SHRIKRISHNA GUPTA  
परियोजना निदेशक / Project Director  
वैश्विक नाभिकीय ऊर्जा साझेदारी केन्द्र (जी.सी.एन.ई.पी.)  
Global Centre for Nuclear Energy Partnership (G.C.N.E.P.)  
प.ऊ.वि., भारत सरकार / D.A.E., Government of India  
बहादुरगढ़ (हरियाणा) / Bahadurgarh (Haryana) - 124507

**Annexure –II First aid Room**



श्रीकृष्ण गुप्ता / SHRIKRISHNA GUPTA  
परियोजना निदेशक / Project Director  
वैश्विक नाभिकीय ऊर्जा साझेदारी केंद्र (जी.सी.एन.ई.पी.)  
Global Centre for Nuclear Energy Partnership (G.C.N.E.P.)  
प.ऊ.वि., भारत सरकार / D.A.E., Government of India  
बहादुरगढ़ (हरियाणा) / Bahadurgarh (Haryana) - 124507





**Toilet Facilities**



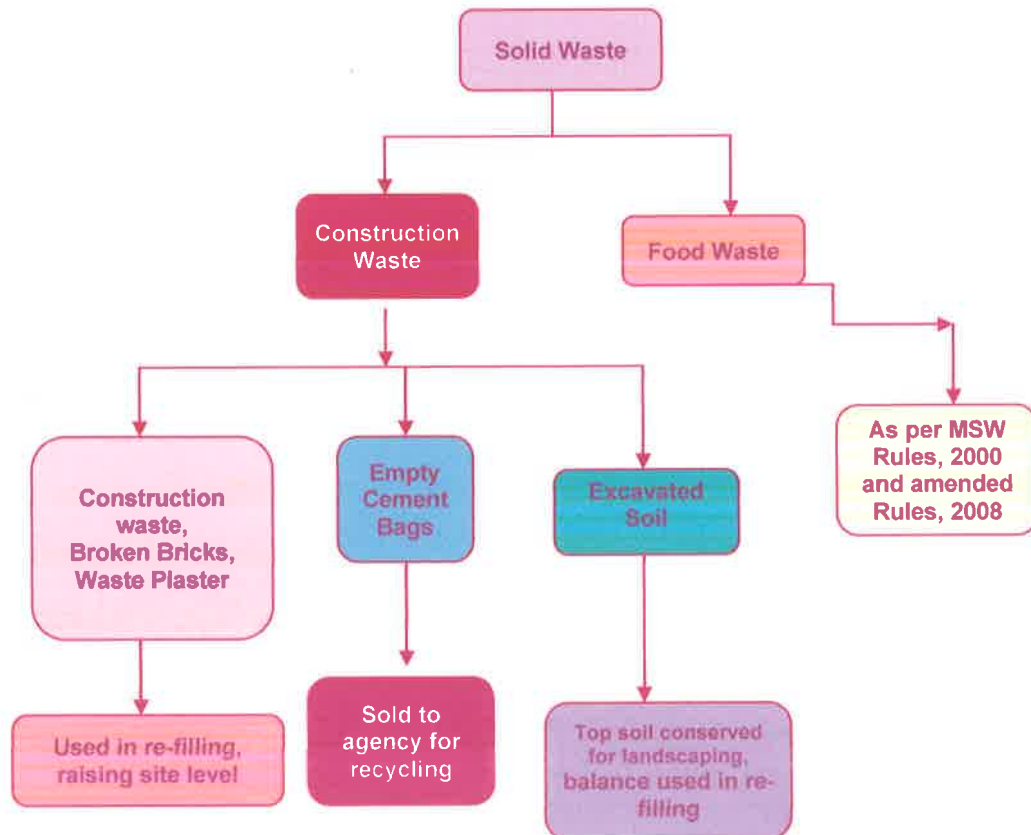
**Septic Tank**

श्रीकृष्ण गुप्ता / SHRIKRISHNA GUPTA  
परियोजना निदेशक / Project Director  
वैश्विक नाभित्तीय ऊर्जा साझेदारी केन्द्र (जी.सी.एन.ई.पी.)  
Global Centre for Nuclear Energy Partnership (G.C.N.E.P.)  
प.ऊ.वि., भारत सरकार / D.A.E., Government of India  
बहादुरगढ़ (हरियाणा) / Bahadurgarh (Haryana) - 124507

## SOLID WASTE MANAGEMENT PLAN

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

- Construction yards are proposed for storage of construction materials.
- The excavated material such as topsoil and stones will be stacked for reuse during later stages of construction
- Excavated top soil will be stored in temporary constructed soil bank and will be reused for landscaping of the Residential Group Housing Colony project.
- Remaining soil shall be utilized for refilling / road work / rising of site level at locations/ selling to outside agency for construction of roads etc.



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

During the operation phase, waste will comprise domestic as well as agricultural waste. The solid waste generated from the project shall be mainly domestic waste and estimated quantity

of the waste shall be approx. 1530 kg per day (@ 0.5 kg per capita per day for residents and students, @ 0.15 kg per capita per day for the visitor, 0.25 kg per capita per day for the staff members and landscape wastes @ 15 kg/acre/day). Following arrangements will be made at the site in accordance to Municipal Solid Wastes (Management and Handling) Rules, 2000 and amended Rules, 2008.

❖ **Collection and Segregation of waste**

1. A door to door collection system will be provided for collection of domestic waste in colored bins from household units.
2. The local vendors will be hired to provide separate colored bins for dry recyclables and Bio-Degradable waste.
3. For commercial waste collection, adequate number of colored bins (Green and Blue & dark grey bins– separate for Bio-degradable and Non Bio-degradable) are proposed to be provided at the strategic locations of the commercial area.
4. Litter bin will also be provided in open areas like parks etc.

❖ **Treatment of waste**

• **Bio-Degradable wastes**


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

• **Recyclable wastes**

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

❖ **Disposal**

Recyclable and non-recyclable wastes will be disposed through Govt. approved agency. Hence, the Municipal Solid Waste Management will be conducted as per the guidelines of Municipal Solid Wastes (Management and Handling) Rules, 2000 and amended Rules, 2008. A Solid waste management Scheme is depicted in the following figure for the Residential Group Housing Colony Project.

  
**श्रीकृष्ण गुप्ता / SHRIKRISHNA GUPTA**  
 परियोजना निदेशक / Project Director  
 वैश्विक नाभिकीय ऊर्जा साझेदारी केंद्र (जी.सी.एन.ई.पी.)  
 Global Centre for Nuclear Energy Partnership (G.C.N.E.P.)  
 प.ऊ.वि., भारत सरकार / D.A.E., Government of India  
 बहादुरगढ़ (हरियाणा) / Bahadurgarh (Haryana) - 124507

ANNEXURE V: PHOTOGRAPH SHOWING STORAGE OF TOP SOIL



श्रीकृष्ण गुप्ता / SHRIKRISHNA GUPTA  
परियोजना निदेशक / Project Director  
वैश्विक नभमितीय ऊर्जा साझेदारी केन्द्र (जी.सी.एन.ई.पी.)  
Global Centre for Nuclear Energy Partnership (G.C.N.E.P.)  
प.ऊ.वि., भारत सरकार / D.A.E., Government of India  
बहादुरगढ़ (हरियाणा) / Bahadurgarh (Haryana) - 124507





# Vardan EnviroLab

Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051, Haryana  
ISO 9001|ISO 14001|ISO 45001

## Test Report

**Sample Number:** VEL/GCNEP/A/01 **Report No.:** VEL/A/2103/25/001-008  
**Issued To:** M/s GCNEP, Department of Atomic Energy, **Format No.:** 7.8F-01  
 Government of India, Reactor Control Division, **Party Reference No.:** NIL  
 Bhabha Atomic Research Centre, Trombay, **Reporting Date:** 29/03/2021  
 Mumbai- 400085 **Period of Analysis:** 25/03/2021- 29/03/2021  
**Name & Address of Party:** Expansion of Institutional Campus & **Receipt Date:** 25/03/2021  
 Residential Township Project at Village- Kheri  
 Jasaur and Jasaur Kheri, Bhadrargarh, District-  
 Jhajjar, Haryana.

**Sample Description :** AMBIENT AIR QUALITY MONITORING

### General Information:-

**Sample collected by** : VardanEnviro Lab Representative  
**Sampling Location** : Near Project Site  
**Instrument Used** : RDS & FPS sampler with all Accessories  
**Instrument Code** : VEL/RDS/FPS/03  
**Instrument Calibration Status** : Calibrated  
**Meteorological condition during monitoring** : Clear Sky  
**Surrounding Activity** : Human & Vehicular Activities  
**Scope of Monitoring** : Regulatory Requirement  
**Control measure if Any** : --  
**Sampling & Analysis Protocol** : IS-5182 & CPCB Guideline  
**Parameter Required** : PM<sub>2.5</sub>, PM<sub>10</sub>, NO<sub>2</sub>, SO<sub>2</sub> CO, SPM, HC

| Date       | PM <sub>10</sub><br>(µg/m <sup>3</sup> ) | PM <sub>2.5</sub><br>(µg/m <sup>3</sup> ) | NO <sub>2</sub><br>(µg/m <sup>3</sup> ) | SO <sub>2</sub><br>(µg/m <sup>3</sup> ) | CO<br>(mg/m <sup>3</sup> ) | SPM<br>(µg/m <sup>3</sup> ) | HC<br>(µg/m <sup>3</sup> )         |
|------------|--|---|---|---|----------------------------|-----------------------------|------------------------------------|
| 02.03.2021 | 91.35                                    | 50.96                                     | 21.63                                   | 17.62                                   | 0.80                       | 129.7                       | **BDL (DL 0.05 µg/m <sup>3</sup> ) |
| 05.03.2021 | 93.87                                    | 52.34                                     | 23.52                                   | 19.54                                   | 0.87                       | 134.1                       | *BDL (DL 0.05 µg/m <sup>3</sup> )  |
| 09.03.2021 | 90.53                                    | 49.18                                     | 19.21                                   | 15.44                                   | 0.79                       | 151.6                       | **BDL (DL 0.05 µg/m <sup>3</sup> ) |
| 12.03.2021 | 92.64                                    | 51.26                                     | 21.82                                   | 13.61                                   | 0.83                       | 148.3                       | *BDL (DL 0.05 µg/m <sup>3</sup> )  |
| 16.03.2021 | 94.12                                    | 56.74                                     | 25.86                                   | 18.05                                   | 0.92                       | 153.9                       | **BDL (DL 0.05 µg/m <sup>3</sup> ) |
| 18.03.2021 | 90.87                                    | 48.16                                     | 18.37                                   | 14.33                                   | 0.78                       | 143.5                       | *BDL (DL 0.05 µg/m <sup>3</sup> )  |
| 22.03.2021 | 88.28                                    | 47.34                                     | 16.86                                   | 11.38                                   | 0.81                       | 145.2                       | **BDL (DL 0.05 µg/m <sup>3</sup> ) |
| 23.03.2021 | 91.26                                    | 50.19                                     | 19.55                                   | 12.60                                   | 0.77                       | 139.3                       | *BDL (DL 0.05 µg/m <sup>3</sup> )  |

| Parameter           | PM <sub>10</sub><br>(µg/m <sup>3</sup> ) | PM <sub>2.5</sub><br>(µg/m <sup>3</sup> ) | NO <sub>2</sub><br>(µg/m <sup>3</sup> ) | SO <sub>2</sub><br>(µg/m <sup>3</sup> ) | CO<br>(mg/m <sup>3</sup> ) | SPM<br>(µg/m <sup>3</sup> ) | HC<br>(µg/m <sup>3</sup> ) |
|---------------------|--|---|---|---|----------------------------|-----------------------------|----------------------------|
| Limit as per NAAQS* | 100                                      | 60  | 80                                      | 80                                      | 4                          | --                          | --                         |

\* National Ambient Air Quality Standards, Note - \*Below Detection Limit.

KOMAL SINGH  
ANALYST

(Tested By)

ARJUN RAWAT  
(Checked By)

(Checked By)

श्रीकृष्ण गुप्ता / SHRIKRISHNA GUPTA

परियोजना निदेशक / Project Director

वैश्विक नाभिकीय ऊर्जा साझेदारी केन्द्र (बी.सी.एन.ई.पी.)

Global Centre for Nuclear Energy Partnership (G.C.N.E.P.)

भारत सरकार, D.A.E., Government of India



(Approved By)

www.vardan.co.in

Note: Terms & conditions refer on backside of test report.





# Vardan EnviroLab

Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051, Haryana  
ISO 9001|ISO 14001|ISO 45001

## Test Report

**Sample Number:** VEL/GCNEP/AN/01 **Report No.:** VEL/AN/2103/25/001  
**Issued To:** M/s GCNEP, Department of Atomic Energy, **Format No.:** 7.8 F-01  
 Government of India, Reactor Control **Party Reference No.:** NIL  
 Division, Bhabha Atomic Research Centre,  
 Trombay, Mumbai- 400085  
**Name & Address of Party:** Expansion of Institutional Campus & Residential Township Project at Village-Kheri Jasaur and Jasaur Kheri, Bhadurgarh, District- Jhajjar, Haryana.  
**Reporting Date:** 29/03/2021  
**Period of Analysis:** 25/03/2021 to 29/03/2021  
**Receipt Date:** 25/03/2021

**Sample Description :** AMBIENT NOISE LEVEL MONITORING

### General Information:-

**Sample collected by :** Vardan EnviroLab Representative  
**Sampling Location :** Near Main Gate  
**Instrument Used :** SLM/02  
**Instrument Calibration Status :** Calibrated  
**Meteorological condition during monitoring :** Clear Sky  
**Date of Monitoring :** 23/03/2021- 24/03/2021  
**Time of Monitoring :** 06:00 AM to 06:00 AM  
**Surrounding Activity :** Human & Vehicular Activities  
**Scope of Monitoring :** Regulatory Requirement  
**Sampling & Analysis Protocol :** IS-9989 & CPCB Guideline  
**Sampling Duration :** 24 Hours  
**Parameter Required :**  $L_{max}$ ,  $L_{min}$  &  $L_{eq}$

## TEST RESULTS

| S. No. | Parameters                                     | Protocol | Test Result dB (A)                |                                      | Unit  |
|--------|--|----------|-----------------------------------|--------------------------------------|-------|
|        |  |          | Day Time<br>(6:00 am to 10:00 pm) | Night Time<br>(10:00 pm to 06:00 am) |       |
| 1.     | $L_{max}$                                      | IS-9989  | 65.6                              | 53.6                                 | dB(A) |
| 2.     | $L_{min}$                                      | IS-9989  | 42.5                              | 35.8                                 | dB(A) |
| 3.     | $L_{eq}$                                       | IS-9989  | 49.30                             | 41.60                                | dB(A) |
| 4.     | CPCB Limits in dB(A) Leq<br>(Residential Area) |          | 55.0                              | 45.0                                 | dB(A) |

Note: \*A "decibel" is a unit in which noise is measured.

**GOMAL SINGH**  
ANALYST  
(Tested By)

**ARJUN RAWAT**  
(Checked By)



श्रीकृष्ण गुप्ता / SHRIKRISHNA GUPTA

परियोजना निदेशक / Project Director

वैश्विक नाभिकीय ऊर्जा साझेदारी केन्द्र (जी.सी.एन.पी.)

Global Centre for Nuclear Energy Partnership (G.C.N.E.P.)

भारत, जसपुर, जहाज, I.D.A.E. Government of India

वार्दान एनवायरोलैब (हरियाणा) - 121607

**Note:** Terms & conditions refer on backside of test report.

[www.vardan.co.in](http://www.vardan.co.in)

Ph: 0124-4343750/752/753, 9810355569, 9953147268 E-mail: lab@vardanenvironet.com, bd@vardanenvironet.com





# Vardan EnviroLab

Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051, Haryana  
ISO 9001 | ISO 14001 | ISO 45001

## Test Report

**Sample Number:** VEL/GCNEP/ST/01 **Report No.:** VEL/ST/2103/25/001  
**Issued To:** M/s GCNEP, Department of Atomic Energy, **Format No.:** 7.8 F-01  
**Government of India, Reactor Control** **Party Reference No.:** NIL  
**Division, Bhabha Atomic Research Centre,** **Reporting Date:** 29/03/2021  
**Trombay, Mumbai- 400085** **Period of Analysis:** 25/03/2021 to 29/03/2021  
**Name & Address of Party:** Expansion of Institutional Campus & **Receipt Date:** 25/03/2021  
**Residential Township Project at Village-**  
**Kheri Jasaur and Jasaur Kheri,**  
**Bhadurgarh, District- Jhajjar, Haryana.**  
**Sample Description :** STACK EMISSION MONITORING

Sample Collected : Vardan EnviroLab Team  
Date of Sampling : 23/03/2021  
Sampling Location : D.G Stack No- 2 (250 KVA)  
Sampling duration (Minutes) : 32.0  
Meteorological Condition : Clear Sky  
Height of the Stack : 30.0 Meter  
Diameter of the Stack : 175.5 cm  
Instrument calibration status : Calibrated  
Ambient Temperature – Ta (°C) : 34.0  
Temperature of Stack Gases - Ts (°C) : 156.0  
Velocity of Stack Gases (m/sec.) : 8.86  
Flow rate of PM (LPM) : 25.0  
Flow rate of Gas (LPM) : 2.0  
Sampling condition : Isokinetic  
Protocol used : IS :11255 & CPCB Guideline

### TEST RESULTS

| S. No. | Parameters                             | Protocol                               | Units     | Results | Limits (As Per CPCB) |
|--------|--|--|-----------|---------|----------------------|
| 1.     | Particulate Matter (PM)                | IS 11255 (P-1) Gravimetric Method      | g/kW - hr | 0.092   | ≤ 0.2                |
| 2.     | Nitrogen Dioxide (as NO <sub>2</sub> ) | IS 11255 (P-7) Colorimetric Method     | g/kW - hr | 1.57    | ≤ 4.0                |
| 3.     | Total Hydrocarbon as Methane           | By Gas Chromatography Method           | g/kW - hr | 0.53    |                      |
| 4.     | Carbon Monoxide (as CO)                | *SOP No. VEL/SOP/01, Section No. SP 74 | g/kW - hr | 0.84    | ≤ 3.5                |
| 5.     | Sulphur Dioxide (as SO <sub>2</sub> )  | IS 11255 (P-2) Titrimetric Method      | gm/Kw-hr  | 0.28    | ---                  |

\* SOP-Laboratory Standard operating procedure.

**ROMAL SINGH**

Analyst

**ARJUN RAWAT**

(Checked By)

(Approved By) Singh



श्रीकृष्ण गुप्ता / SHRIKRISHNA GUPTA

परियोजना निदेशक / Project Director

द्वैतक नाभिकीय ऊर्जा साझेदारी केंद्र (बी.सी.एन.ई.पी.)

Global Centre for Nuclear Energy Partnership (G.C.N.E.P.)

भारत सरकार / D.A.E. Government of India

बहाउद्दाला (हरियाणा) / Bahaudal (Haryana) - 124507

[www.vardan.co.in](http://www.vardan.co.in)

**Note:** Terms & conditions refer on backside of test report.





# Vardan EnviroLab

Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051, Haryana  
ISO 9001 | ISO 14001 | ISO 45001

## Test Report

**Sample Number:** VEL/GCNEP/PN/01 **Report No.:** VEL/PN/2103/25/001  
**Issued To:** M/s GCNEP, Department of Atomic Energy, **Format No.:** 7.8 F-01  
**Government of India, Reactor Control Division,** **Party Reference No.:** NIL  
**Bhabha Atomic Research Centre, Trombay,** **Reporting Date:** 29/03/2021  
**Mumbai- 400085** **Period of Analysis:** 25/03/2022 to 29/03/2021  
**Name & Address of Party:** Expansion of Institutional Campus & Residential Township Project at Village- Kheri Jasaur and Jasaur Kheri, Bhadurgarh, District- Jhajjar, Haryana. **Receipt Date:** 25/03/2021  
**Sample Description :** DG SET NOISE MONITORING

### General Information:-

**Sample collected by** : Vardan EnviroLab Representative  
**Sampling Location** : DG Set Area (DG Set 01 (250 KVA))  
**Instrument Used** : SLM/01  
**Instrument Calibration Status** : Calibrated  
**Meteorological condition during monitoring** : Clear Sky  
**Date of Monitoring** : 23/03/2021  
**Surrounding Activity** : Human & Vehicular Activities  
**Scope of Monitoring** : Regulatory Requirement  
**Control measure if Any** : Acoustic enclosure  
**Sampling & Analysis Protocol** : IS-9989  
**Sampling Duration** : 30 Minutes  
**Parameter Required** : Leq & Insertion Loss

| S. No. | Parameters           | Protocol | Inside the D.G. Room Result dB(A) | Outside the D.G. Room (1.0 mtr Distance) Result dB(A) | Insertion Loss |
|--------|----------------------|----------|-----------------------------------|---|----------------|
| 1.     | Leq                  | IS-9989  | 95.7                              | 70.3  | 25.4           |
| 2.     | CPCB Limit in dB(*A) | -        | --                                | 75.00   | 25.00          |

Note- \*A "decibel" is a unit in which noise is measured

**KOMAL SINGH**

(Tested By)

**ARJUN RAWAT**

(Checked By)

(Approved By)



श्रीकृष्ण गुप्ता / SHRIKRISHNA GUPTA

परियोजना निदेशक / Project Director

वैश्विक नभिकीय ऊर्जा साझेदारी केंद्र (जी.सी.एन.ई.पी.)

Global Centre for Nuclear Energy Partnership (G.C.N.E.P.)

प्र.ऊ.वि., भारत सरकार / D.A.E., Government of India

बहादुरगढ़, (हरियाणा) / Bahadurgarh (Haryana) - 124507

[www.vardan.co.in](http://www.vardan.co.in)

**Note:** Terms & conditions refer on backside of test report.





# Vardan EnviroLab

Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051, Haryana  
ISO 9001 | ISO 14001 | ISO 45001

## Test Report

**Sample Number:** VEL/GCNEP/W/01 **Report No.:** VEL/W/2103/25/022  
**Issued To:** M/s GCNEP, Department of Atomic Energy, **Format No.:** 7.8 F-01  
 Government of India, Reactor Control Division, **Party Reference No.:** NIL  
 Bhabha Atomic Research Centre, Trombay, **Reporting Date:** 29/03/2021  
 Mumbai- 400085  
**Name & Address of Party:** Expansion of Institutional Campus & Residential **Period of Analysis:** 25/03/2021 -29/03/2021  
 Township Project at Village- Kheri Jasaur and **Receipt Date:** 25/03/2021  
 Jasaur Kheri, Bhadrargarh, District- Jhajjar, **Sampling Date:** 24/03/2021  
 Haryana. **Sampling Quantity:** 2.0 Ltr  
**Sample Description:** Drinking Water Sample **Sampling Type:** Grab  
**Sampling Location:** Project Site **Preservation:** Refrigerated  
**Sample Collected by:** Vardan Enviro Lab Representative **Parameter Required:** As per Work Order  
**Sampling & Analysis Protocol:** APHA 23<sup>rd</sup> Edition 2017

| S. No. | Parameter                           | Test-Method   | Result                | Unit  | Limits of IS:10500 -2012       |  |
|--------|-------------------------------------|---|-----------------------|-------|--------------------------------|--|
|        |                                     |   |                       |       | Requirement (Acceptable Limit) | Permissible limit in the Absence of Alternate Source |
| 1.     | pH (at 25 °C)                       | APHA ,4500-H <sup>+</sup> B Electrometric Method            | 7.54                  | --    | 6.5 to 8.5                     | No Relaxation  |
| 2.     | Colour                              | APHA ,2120 B, Visual Comparison Method                      | *BDL (**DL 1.0 Hazen) | Hazen | 5                              | 15   |
| 3.     | Turbidity                           | APHA. 2130 B, Nephelometric- Method                         | *BDL (**DL 1.0 NTU)   | NTU   | 1                              | 5  |
| 4.     | Odour                               | APHA. 2150 B , Threshold Test Method                        | Agreeable             | --    | Agreeable                      | Agreeable  |
| 5.     | Taste                               | APHA , 2160 B, Threshold Test Method                        | Agreeable             | --    | Agreeable                      | Agreeable  |
| 6.     | Total Hardness as CaCO <sub>3</sub> | APHA , 2340 C, EDTA Titrimetric Method                      | 63.72                 | mg/l  | 200                            | 600  |
| 7.     | Calcium as Ca                       | APHA, 3500 Ca B, EDTA Titrimetric Method                    | 12.27                 | mg/l  | 75                             | 200  |
| 8.     | Alkalinity as CaCO <sub>3</sub>     | APHA , 2320 B, Titrimetric Method                           | 48.14                 | mg/l  | 200                            | 600  |
| 9.     | Chloride as Cl                      | APHA, 4500-Cl <sup>-</sup> B, Argentometric Method          | 8.55                  | mg/l  | 250                            | 1000   |
| 10.    | *Cyanide as CN                      | APHA , 4500 CN <sup>-</sup> D                               | *BDL(**DL 0.02 mg/l)  | mg/l  | 0.05                           | No Relaxation  |
| 11.    | Magnesium as Mg                     | APHA , 3500 Mg B, Calculation Method                        | 8.04                  | mg/l  | 30                             | 100  |
| 12.    | Total Dissolved Solids              | APHA , 2540 C, Gravimetric Method                           | 105.00                | mg/l  | 500                            | 2000   |
| 13.    | Sulphate as SO <sub>4</sub>         | APHA , 4500 E, Turbidimetric Method                         | 4.26                  | mg/l  | 200                            | 400  |
| 14.    | Fluoride as F                       | APHA , 4500-F <sup>-</sup> D, SPADNS Method                 | 0.18                  | mg/l  | 1.0                            | 1.5  |
| 15.    | Nitrate as NO <sub>3</sub>          | IS 3025 (P-34) ,Chromotropic Method                         | 1.41                  | mg/l  | 45                             | No Relaxation  |
| 16.    | Iron as Fe                          | APHA , 3500-Fe B 1,10 Phenanthroline Method                 | 0.09                  | mg/l  | 1.0                            | No relaxation  |
| 17.    | Aluminum as Al                      | APHA , 3111 B, Direct Nitrous Oxide, Acetylene Flame Method | *BDL(**DL 0.03 mg/l)  | mg/l  | 0.03                           | 0.2  |
| 18.    | Boron                               | APHA, 4500B C, Carmine Method                               | *BDL(**DL 0.1 mg/l)   | mg/l  | 0.5                            | 2.4  |
| 19.    | Total Chromium as Cr                | APHA , 3111 B, Direct Air, Acetylene Flame Method           | *BDL(**DL 0.03 mg/l)  | mg/l  |                                | No Relaxation  |

MEENU KAUSHIK  
(Tested By)

ARJUN RAWAT  
(Checked By)

(Approved By) Singh



श्रीकृष्ण गुप्ता / SHRIKRISHNA GUPTA

परियोजना निदेशक / Project Director

वैश्विक नर्तिकीय ऊर्जा साझेदारी केन्द्र (जी.सी.एन.ई.पी.)

Global Centre for Nuclear Energy Partnership (G.C.N.E.P.)

प.ऊ.वि., भारत सरकार / D.A.E., Government of India

www.vardan.co.in





# Vardan EnviroLab

Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051, Haryana  
ISO 9001|ISO 14001|ISO 45001

## Test Report

| Sample No.: <b>VEL/GCNEP/W/01</b> |                             |   |                        | Report No: <b>VEL/W/2103/25/022</b> |  |  |
|-----------------------------------|-----------------------------|---|------------------------|-------------------------------------|--|--|
| S. No                             | Parameter                   | Test-Method                                       | Result                 | Unit                                | Limits of IS:10500-2012                      |  |
|                                   |                             |   |                        |                                     | Requirement (Acceptable) Limit               | Permissible limit in the Absence of Alternate Source |
| 20.                               | Phenolic Compounds          | APHA, 5530 C Chloroform Extraction Method         | *BDL(**DL 0.001 mg/l)  | mg/l                                | 0.001  | 0.002  |
| 21.                               | #Mineral Oil                | Clause 6 of IS:3025(Part 39)                      | *BDL(**DL 0.01mg/l)    | mg/l                                | 0.5  | No Relaxation  |
| 22.                               | #Anionic Detergents as MBAS | APHA, 5540 C MBAS Method                          | *BDL(**DL 0.02 mg/l)   | mg/l                                | 0.2  | 1.0  |
| 23.                               | Zinc as Zn                  | APHA , 3111 B, Direct Air, Acetylene Flame Method | *BDL(**DL 0.03 mg/l)   | mg/l                                | 5  | 15   |
| 24.                               | Copper as Cu                | APHA , 3111 B, Direct Air, Acetylene Flame Method | *BDL(**DL 0.03 mg/l)   | mg/l                                | 0.05   | 1.5  |
| 25.                               | Manganese as Mn             | APHA , 3111 B, Direct Air, Acetylene Flame Method | *BDL(**DL 0.06 mg/l)   | mg/l                                | 0.1  | 0.3  |
| 26.                               | Cadmium as Cd               | APHA , 3111 B, Direct Air, Acetylene Flame Method | *BDL(**DL 0.003 mg/l)  | mg/l                                | 0.003  | No Relaxation  |
| 27.                               | Lead as Pb                  | APHA , 3111 B, Direct Air, Acetylene Flame Method | *BDL(**DL 0.01 mg/l)   | mg/l                                | 0.01   | No Relaxation  |
| 28.                               | Selenium as Se              | APHA , 3114 B, Manual Hydride Generation          | *BDL(**DL 0.01 mg/l)   | mg/l                                | 0.01   | No Relaxation  |
| 29.                               | Arsenic as As               | APHA , 3114 B, Manual Hydride Generation          | *BDL(**DL 0.01 mg/l)   | mg/l                                | 0.01   | 0.05   |
| 30.                               | Mercury as Hg               | APHA , 3112 B, Cold Vapor Method                  | *BDL (**DL 0.001 mg/l) | mg/l                                | 0.001  | No Relaxation  |
| 31.                               | Total Coliform              | IS 15185,2002 (RA:2016)                           | Absent                 | /100ml                              | Shall not be detectable in any 100 ml sample |  |
| 32.                               | E. Coli                     | IS 15185,2002 (RA:2016)                           | Absent                 | /100ml                              | Shall not be detectable in any 100 ml sample |  |

Note: - \*BDL-Below Detection Limit, \*\*DL- Detection Limit

#These parameter are not covered in our NABL scope.

**MEENU KAUSHIK**

(Checked By)

**ARJUN RAWAT**

(Checked By)

(Approved By) Singh

श्रीकृष्ण गुप्ता / SHRIKRISHNA GUPTA

परियोजना निदेशक / Project Director

वैश्विक नुक्लियर ऊर्जा साझेदारी केंद्र (जी.सी.एन.ई.पी.)

Global Centre for Nuclear Energy Partnership (G.C.N.E.P.)

प.ऊ.वि. भारत सरकार / D.A.E., Government of India

बहादुरगढ़ (हरियाणा) / Bahadurgarh (Haryana) - 124507

[www.vardan.co.in](http://www.vardan.co.in)

Note: Terms & conditions refer on backside of test report.





# Vardan EnviroLab

Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051, Haryana  
ISO 9001 | ISO 14001 | ISO 45001

## Test Report

|                                 |  |                      |                        |
|---------------------------------|--|----------------------|------------------------|
| Sample Number:                  | VEL/GCNEP/WW/01  | Report No.:          | VEL/WW/2103/25/001     |
| Issued To:                      | M/s GCNEP, Department of Atomic Energy,<br>Government of India, Reactor Control<br>Division, Bhabha Atomic Research Centre,<br>Trombay, Mumbai- 400085       | Format No.:          | 7.8 F-01               |
| Name & Address of the Party:    | Expansion of Institutional Campus &<br>Residential Township Project at Village-<br>Kheri Jasaur and Jasaur Kheri, Bhadurgarh,<br>District- Jhajjar, Haryana. | Party Reference No.: | NIL                    |
| Sample Description:             | Waste Water Sample   | Reporting Date:      | 29/03/2021             |
| Sample Location:                | STP Inlet (STP Plant)  | Period of Analysis:  | 25/03/2021- 29/03/2021 |
| Sample Collected by:            | Vardan EnviroLab Representative  | Receipt Date:        | 25/03/2021             |
| Parameter Required:             | As per Client Requirement  | Sampling Date:       | 24/03/2021             |
| Sampling and Analysis Protocol: | APHA   | Sample Quantity:     | 2.0 Ltr                |
|                                 |  | Preservation:        | Refrigerated           |

| S. No. | Parameter             | Test-Method                                      | Result | Unit |
|--------|-----------------------|--|--------|------|
| 1.     | pH (at 25 °C)         | APHA, 4500-H <sup>+</sup> B Electrometric Method | 6.86   | --   |
| 2.     | BOD (3 Days at 27 °C) | APHA.5210/IS 3025.P-44                           | 211.00 | mg/l |
| 3.     | COD                   | APHA, 5220 B Open Reflux Method                  | 653.00 | mg/l |
| 4.     | Oil and Grease        | APHA, 5520 C B Partition Gravimetric Method      | 8.50   | mg/l |
| 5.     | Total Suspended Solid | APHA, 2540 D Gravimetric Method                  | 274.00 | mg/l |

MEENU KAUSHIK

(Checked By)

ARJUN RAWAT

(Checked By)



श्रीकृष्ण गुप्ता / SHRIKRISHNA GUPTA

परियोजना निदेशक / Project Director

वैश्विक नाभिकीय ऊर्जा साझेदारी केंद्र (जी.सी.एन.ई.पी.)

Global Centre for Nuclear Energy Partnership (G.C.N.E.P.)

प.ऊ.वि., भारत सरकार / D.A.E., Government of India

बहादुरगढ़ (हरियाणा) / Bahadurgarh (Haryana) - 124507

www.vardan.co.in

Note: Terms & conditions refer on backside of test report.





# Vardan EnviroLab

Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051, Haryana  
ISO 9001|ISO 14001|ISO 45001

## Test Report

Sample Number: **VEL/GCNEP/WW/02** Report No.: **VEL/WW/2103/25/002**  
 Issued To: **M/s GCNEP, Department of Atomic Energy, Government of India, Reactor Control Division, Bhabha Atomic Research Centre, Trombay, Mumbai- 400085** Format No.: **7.8 F-01**  
 Party Reference No.: **NIL**  
 Reporting Date: **29/03/2021**  
 Name & Address of the Party: **Expansion of Institutional Campus & Residential Township Project at Village-Kheri Jasaur and Jasaur Kheri, Bhadurgarh, District- Jhajjar, Haryana.** Period of Analysis: **25/03/2021- 29/03/2021**  
 Receipt Date: **25/03/2021**  
 Sampling Date: **24/03/2021**  
 Sample Description: **Waste Water Sample** Sample Quantity: **2.0 Ltr**  
 Sample Location: **STP Inlet (STP Plant)** Preservation: **Refrigerated**  
 Sample Collected by: **Vardan EnviroLab Representative**  
 Parameter Required: **As per Client Requirement**  
 Sampling and Analysis Protocol: **APHA**

| S. No. | Parameter             | Test-Method                                      | Result | Unit | *Standards            |               |                     |
|--------|-----------------------|--|--------|------|-----------------------|---------------|---------------------|
|        |                       |  |        |      | In-Land Surface Water | Public Sewers | Land for Irrigation |
| 1.     | pH (at 25 °C)         | APHA. 4500-H <sup>+</sup> B Electrometric Method | 7.36   | --   | 5.5-9.0               | 5.5-9.0       | 5.5-9.0             |
| 2.     | BOD (3 Days at 27 °C) | APHA,5210/IS 3025,P-44                           | 18.00  | mg/l | 30                    | 350           | 100                 |
| 3.     | COD                   | APHA, 5220 B Open Reflux Method                  | 59.20  | mg/l | 250                   | --            | --                  |
| 4.     | Oil and Grease        | APHA, 5520 C B Partition Gravimetric Method      | 1.08   | mg/l | 10                    | 20            | 10                  |
| 5.     | Total Suspended Solid | APHA, 2540 D Gravimetric Method                  | 23.00  | mg/l | 100                   | 600           | 200                 |

\*General Standards for Discharge of Environmental Pollutants (Part A): Effluents, as given in Schedule -VI, inserted by Rule 2(d) of Environment (Protection) Second Amendment Rules, 1993 notified by GSR 422(E) dated 19.05.1993 published in Gazette no. 174 dated 19.05.1993.

MEENU KAUSHIK

Analyst

ARJUN RAWAT

Checked By

(Approved By)

श्रीकृष्ण गुप्ता / SHRIKRISHNA GUPTA

परियोजना निदेशक / Project Director

वैश्विक नाभिकीय ऊर्जा साझेदारी केन्द्र (जी.सी.एन.ई.पी.)

Global Centre for Nuclear Energy Partnership (G.C.N.E.P.)

ग.ऊ.वि. मारस सरकार / D.A.E., Government of India

बहापुरगढ़ (हरियाणा) / Bahadurgarh (Haryana) - 124507

Note: Terms & conditions refer on backside of test report.

www.vardan.co.in





# Vardan EnviroLab

Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051, Haryana  
ISO 9001 | ISO 14001 | ISO 45001

## Test Report

**Sample Number:** VEL/GCNEP/S/01 **Report No.:** VEL/S/2103/25/001

**Issued To:** M/s GCNEP, Department of Atomic Energy, **Format No.:** 7.8 F-01  
Government of India, Reactor Control Division, **Party Reference No.:** NIL  
Bhabha Atomic Research Centre, Trombay, **Reporting Date:** 29/03/2021  
Mumbai- 400085

**Name & Address of Party:** Expansion of Institutional Campus & **Period of Analysis:** 25/03/2021-29/03/2021  
Residential Township Project at Village- Kheri **Receipt Date:** 25/03/2021  
Jasaur and Jasaur Kheri, Bhadurgarh, District- **Sampling Date:** 24/03/2021  
Jhajjar, Haryana.

**Sample Description:** SOIL **Type of Sampling:** Composite

**Sampling Location:** Project Site **Sampling Quantity:** 2.0 Kg

**Sample Collected by:** VardanEnviro Lab Representative **Packing Status:** Temp Sealed

**Sampling & Analysis Protocol:** IS 2720, USEPA 3050B & SOP

| S. No. | Parameter               | Test-Method  | Result          | Unit     |
|--------|-------------------------|--|-----------------|----------|
| 1.     | pH (at 25 °C)           | IS : 2720 (P-26) by pH Meter                       | 7.86            | --       |
| 2.     | Conductivity            | IS:14767 by Conductivity meter                     | 0.342           | mS/cm    |
| 3.     | Soil Texture            | IS : 2720 (P-22, RA2003)                           | Sandy loam      | --       |
| 4.     | Color                   | *SOP , SP-78, Issue No.-01 & Issue Date-14/02/2013 | Yellowish Brown | --       |
| 5.     | Water holding capacity  | *SOP , SP-81, Issue No.-01 & Issue Date-14/02/2013 | 38.62           | %        |
| 6.     | Bulk density            | *SOP , SP-80, Issue No.-01 & Issue Date-14/02/2013 | 1.64            | gm/cc    |
| 7.     | Chloride as Cl          | *SOP , SP-85, Issue No.-01 & Issue Date-14/02/2013 | 46.27           | mg/100g  |
| 8.     | Calcium as Ca           | *SOP , SP-82, Issue No.-01 & Issue Date-14/02/2013 | 39.21           | mg/100g  |
| 9.     | Sodium as Na            | *SOP , SP-84, Issue No.-01 & Issue Date-14/02/2013 | 51.65           | mg/kg    |
| 10.    | Potassium as K          | *SOP , SP-84, Issue No.-01 & Issue Date-14/02/2013 | 105.60          | kg/hect. |
| 11.    | Organic Matter          | IS:2720 (P-22) Titrimetric Method                  | 0.51            | %        |
| 12.    | Magnesium as Mg         | *SOP , SP-83, Issue No.-01 & Issue Date-14/02/2013 | 14.68           | mg/100g  |
| 13.    | Available Nitrogen as N | IS:14684 Distillation Method                       | 224.61          | kg/hect. |
| 14.    | Available Phosphorus    | *SOP , SP-86, Issue No.-01 & Issue Date-14/02/2013 | 24.10           | kg/hect. |
| 15.    | Zinc (as Zn)            | USEPA 3050B  | 18.62           | mg/kg    |
| 16.    | Manganese (as Mn)       | USEPA 3050B  | 9.86            | mg/kg    |
| 17.    | Lead (as Pb)            | USEPA 3050B  | 1.32            | mg/kg    |
| 18.    | Cadmium (as Cd)         | USEPA 3050B  | 1.10            | mg/kg    |
| 19.    | Chromium (as Cr)        | USEPA 3050B  | 0.84            | mg/kg    |
| 20.    | Copper (as Cu)          | USEPA 3050B  | 4.60            | mg/kg    |

\*SOP-Laboratory standard operating procedure.

MEENU KAUSHIK  
(Control By)

ARJUN RAWAT  
(Checked By)

(Approved By) Pratap Singh

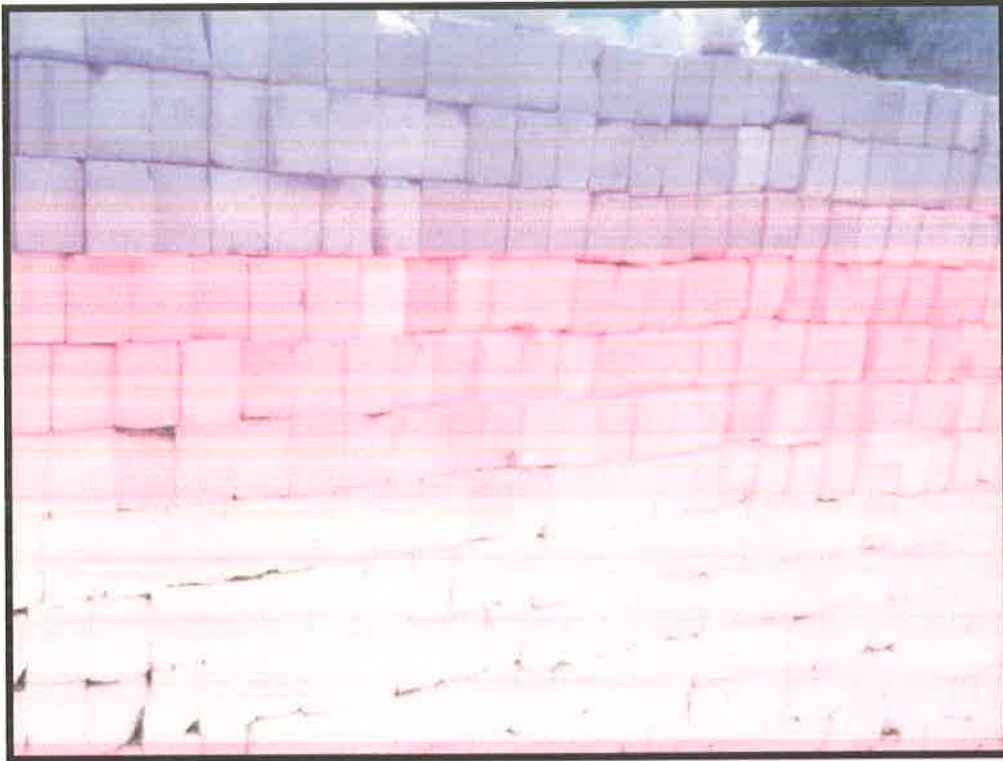
श्रीकृष्ण गुप्ता / SHRIKRISHNA GUPTA  
परियोजना निदेशक / Project Director  
ग्लोबल केंद्र के लिए परमाणु ऊर्जा संगठन (जी.सी.एन.ई.पी.)  
Global Centre for Nuclear Energy Partnership (G.C.N.E.P.)  
ए.डी.ए. भारत सरकार / D.A.E., Government of India

www.vardan.co.in

Note: Terms & conditions refer on backside of test report.



**ANNEXURE VIII**

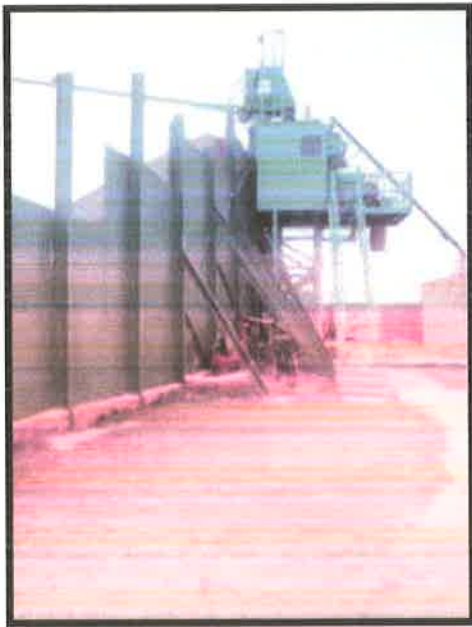


श्रीकृष्ण गुप्ता / SHRIKRISHNA GUPTA  
परियोजना निदेशक / Project Director  
वैश्विक नाभिकीय ऊर्जा साझेदारी केन्द्र (जी.सी.एन.ई.पी.)  
Global Centre for Nuclear Energy Partnership (G.C.N.E.P.)  
प.ऊ.वि., भारत सरकार / D.A.E., Government of India  
बहादुरगढ़ (हरियाणा) / Bahadurgarh (Haryana) - 124507

ANNEXURE IX




Cement storage




Batching Plant

श्रीकृष्ण गुप्ता / SHRUKRISHNA GUPTA  
परियोजना निदेशक / Project Director  
पैरिग्लोबल नुक्लियर एनर्जी पार्टनरशिप सेंटर (जी.सी.एन.ई.पी.)  
Global Centre for Nuclear Energy Partnership (G.C.N.E.P.)  
प.क.वि., भारत सरकार / D.A.E., Government of India  
बहादुरगढ़ (हरियाणा) / Bahadurgarh (Haryana) - 124507

| CAMPUS SITE |  |                            |                            |
|-------------|--|----------------------------|----------------------------|
| Sr. No.     | Load Description                       | Connected Load (CL) in kVA | Maximum Demand (MD) in kVA |
| 1.          | Central building                       | 1500                       | 750                        |
| 2.          | SARRT                                  | 673                        | 150                        |
| 3.          | SNMCS                                  | 192                        | 150                        |
| 4.          | SNSS                                   | 591                        | 450                        |
| 5.          | SANESS                                 | 2000                       | 800                        |
| 6.          | SANESS High Bay                        | 2000                       | 800                        |
| 7.          | SRSS                                   | 1500                       | 450                        |
| 8.          | HVAC                                   | 3000                       | 2400                       |
| 9.          | Domestic and flushing Panel            | 75                         | 40                         |
| 10.         | Firefighting Panel                     | 160                        | 160                        |
| 11.         | STP                                    | 150                        | 100                        |
| 12.         | Pump Room                              | 200                        | 100                        |
| 13.         | External Road Lighting                 | 15                         | 15                         |
|             | <b>Total</b>                           | <b>12056</b>               | <b>6365</b>                |
|             | <b>TOTAL LOAD (WITH DIVERSITY) 80%</b> |                            | <b>5092</b>                |
|             | <b>SAY</b>                             |                            | <b>5000 kVA</b>            |

  
**श्रीकृष्ण गुप्ता / SHRIKRISHNA GUPTA**  
 परियोजना निदेशक / Project Director  
 वैश्विक नाभिकीय ऊर्जा साझेदारी केन्द्र (जी.सी.एन.ई.पी.)  
 Global Centre for Nuclear Energy Partnership (G.C.N.E.P.)  
 प.ऊ.वि., भारत सरकार / D.A.E., Government of India  
 बहादुरगढ़ (हरियाणा) / Bahadurgarh (Haryana) - 124507

| TOWNSHIP SITE |  |                            |                            |
|---------------|--|----------------------------|----------------------------|
| Sr. No.       | Load Description                       | Connected Load (CL) in kVA | Maximum Demand (MD) in kVA |
| 1.            | Guest House-A & B                      | 400                        | 250                        |
| 2.            | Type-C                                 | 510                        | 350                        |
| 3.            | Type-D                                 | 918                        | 500                        |
| 4.            | Type-E                                 | 306                        | 175                        |
| 5.            | Recreation Centre                      | 300                        | 200                        |
| 6.            | Dining & Party Hall                    | 300                        | 175                        |
| 7.            | Domestic and flushing Panel            | 50                         | 25                         |
| 8.            | Fire fighting Panel                    | 150                        | 150                        |
| 9.            | STP 1 & 2                              | 200                        | 100                        |
| 10.           | External Road Lighting                 | 15                         | 15                         |
| 11            | Public Awareness Centre                | 200                        | 100                        |
| 12            | Gate House                             | 100                        | 25                         |
| 13            | Service Building                       | 150                        | 50                         |
|               | <b>Total</b>                           | <b>3599</b>                | <b>2115</b>                |
|               | <b>TOTAL LOAD (WITH DIVERSITY) 80%</b> |                            | <b>1692</b>                |
|               | <b>SAY</b>                             |                            | <b>1700 kVA</b>            |

  
 श्रीकृष्ण गुप्ता / SHRIKRISHNA GUPTA  
 परियोजना निदेशक / Project Director  
 वैश्विक नाभिकीय ऊर्जा साझेदारी केंद्र (जी.सी.एन.ई.पी.)  
 Global Centre for Nuclear Energy Partnership (G.C.N.E.P.)  
 प.ऊ.वि., भारत सरकार / D.A.E., Government of India  
 बहादुरगढ़ (हरियाणा) / Bahadurgarh (Haryana) - 124507



**Details of Saving in Electrical Energy in GCNEP Campus & Township by employing Energy Saving devices.**

| Sr. No. | With out Energy Saving Measures       |                                |                       | With Energy Saving Measures            |           |                       | Energy Saved |          | Remarks   |
|---------|---------------------------------------|--------------------------------|-----------------------|--|-----------|-----------------------|--------------|----------|---|
|         | Load Description                      | Load (kW)                      | Energy Consumed (kWh) | Load Description                       | Load (kW) | Energy Consumed (kWh) | in kWh       | % Saving |   |
| 1       | 2                                     | 3                              | 4                     | 5                                      | 6         | 7                     | 8            | 9        | 10  |
| 1       | T8 Fluorescent light fixtures         | 384 (8000 pts) @ 8 hrs per day | 3072                  | T5- Fluorescent light fixtures         | 248       | 1984 @ 8 hrs per day  | 1088         | 35%      | 1) 8 Hours operation assumed<br>2) T8 - 36W lamp with electromagnetic ballast (12W)<br>3) T5- 28W lamp with electronic ballast (3W) |
| 2       | Water heater load                     | 10                             | 60 @ 6 hrs per day    | Solar Water Heater                     | 5         | 30 @ 6 hrs per day    | 30           | 50%      |   |
| 3       | Streetlighting with SON-T (HPSV) lamp | 15                             | 180 @ 12 hrs per day  | Streetlighting with LED (50 W) fixture | 5         | 60 @ 12 hrs per day   | 120          | 67%      |   |

  
**श्रीकृष्ण गुप्ता / SHRIKRISHNA GUPTA**  
 परियोजना निदेशक / Project Director  
 वैश्विक नाभिकीय ऊर्जा साझेदारी केन्द्र (जी.सी.एन.ई.पी.)  
 Global Centre for Nuclear Energy Partnership (G.C.N.E.P.)  
 प.ऊ.वि., भारत सरकार / D.A.E., Government of India  
 बहादुरगढ़ (हरियाणा) / Bahadurgarh (Haryana) - 124507

| Sr. No. | With out Energy Saving Measures       |                |                       | With Energy Saving Measures            |           |                       | Energy Saved |          |   |
|---------|---------------------------------------|----------------|-----------------------|--|-----------|-----------------------|--------------|----------|---|
|         | Load Description                      | Load (kW)      | Energy Consumed (kWh) | Load Description                       | Load (kW) | Energy Consumed (kWh) | in kWh       | % Saving | Remarks   |
| 1       | 2                                     | 3              | 4                     | 5                                      | 6         | 7                     | 8            | 9        | 10  |
| II)     |                                       |                |                       |  |           |                       |              |          |   |
| 1       | T8 Fluorescent light fixtures         | 124 (2600 pts) | 992                   | T5- Fluorescent light fixtures         | 80        | 640                   | 352          | 35%      | 1) 8 Hours operation assumed<br>2) T8 - 36W lamp with electromagnetic ballast (12W)<br>3) T5- 28W lamp with electronic ballast (3W) |
| 2       | Water heater load                     | 54             | 54                    | Solar Water Heater                     | 25        | 25                    | 29           | 54%      |   |
| 3       | Streetlighting with SON-T (HPSV) lamp | 15             | 180                   | Streetlighting with LED (50 W) fixture | 5         | 60                    | 120          | 67%      |   |

Total Energy Saved per day = 1739 kWh

- Note:
- 1) The proposed use of Energy efficient LED luminaires for interior lighting will further result in savings up to 40% compared to conventional T-5 fluorescents lamps.
  - 2) The proposed use of roof top grid tied solar PV system will further reduce the energy demand by generation of approx. 5400 units per day considering 6 hours of sunlight.

श्रीकृष्ण गुप्ता / SHRKRISHNA GUPTA  
परियोजना निदेशक / Project Director  
शैक्षिक-नाभिलीय ऊर्जा सहकारी अण्ड (जी.सी.एन.ई.पी.)  
Global Centre for Nuclear Energy Partnership (G.C.N.E.P.)  
प.ऊ.वि., भारत सरकार / D.A.E., Government of India  
बहादुरगढ़ (हरिकाना) / Bahadurgarh (Haryana) - 124507

## वन मण्डल अधिकारी (क्षेत्रीय), झज्जर

बाग जॉहआरा स्टेडियम, नजदीक DSP Residence, झज्जर  
दुरभाष 01251-257258 e-mail:- dfojajjar@yahoo.co.in, dfojajjar@rediffmail.com

सेवा में:-

Ms. Y.S. Mayya, OS  
Project Director, GCNEP  
(Global Centre for Nuclear Energy Partnership),  
DAE, Govt. of India.  
RCnD, BARC, Mumbai-85.

क्रमांक:- 3293 दिनांक:- 27-12-2013

विषय:-

**Construction of Institutional Campus and Residential Township for Global Centre for Nuclear Energy Partnership (GCNEP) at Kheri-Jassor and Jassor-Kheri village, Bahadurgarh in the State of Haryana.**

संदर्भ:-

आपका पत्रांक GCNEP/81 दिनांक 26.12.2013

--00--

उपरोक्त विषय के सम्बन्ध में आप द्वारा प्रस्तुत किये गये खसरा न0 व किला न0 में किसी प्रकार की वन भूमि शामिल नहीं है। इसलिये आप द्वारा प्रस्तुत किये गये खसरा न0 व किला न0 में Institutional Campus and Residential Township for Global Centre for Nuclear Energy Partnership (GCNEP) का निर्माण करने पर इस कार्यालय को कोई आपत्ति नहीं है।

संलग्न -- उपरोक्त खसरा न0 व किला न0

वन मण्डल अधिकारी,  
झज्जर।

श्रीकृष्ण गुप्ता / SHRIKRISHNA GUPTA  
परियोजना निदेशक / Project Director  
वैश्विक नाभिकीय ऊर्जा साझेदारी केंद्र (जी.सी.एन.ई.पी.)  
Global Centre for Nuclear Energy Partnership (G.C.N.E.P.)  
प.ऊ.वि., भारत सरकार / D.A.E., Government of India  
बहादुरगढ़ (हरियाणा) / Bahadurgarh (Haryana) - 124507

FAX NO.

13 May 2010 4:41PM P1

3

**HARYANA GOVERNMENT  
DEVELOPMENT AND PANCHAYATS DEPARTMENT  
ORDER**

No.

Whereas the Gram Panchayat Kheri Jassour passed a resolution No. 1 dated 8.4.2010 for sale of its land measuring 123 Acre 2 Kanal 17 Marla falling in khasra Nos. 82/1(8-0), 82/2(8-0), 8(8-0), 7(8-0), 11(8-0), 9(8-0), 10(8-0), 11(8-0), 12(8-0), 13(8-0), 14(8-0), 15(8-0), 16(8-0), 17(8-0), 18(8-0), 19(8-0), 20(8-0), 21(8-0), 22(8-0), 23(8-0), 24(8-0), 25(8-0), 83/1(8-0), 2(8-0), 3(8-0), 4(8-0), 5(8-0), 6(8-0), 7(8-0), 8(8-0), 9(8-0), 10(8-0), 11(7-12), 12(8-0), 13(8-0), 14(8-14), 15(8-3), 16(4-16), 17(8-12), 18(8-0), 19(8-0), 20(7-12), 21(7-12), 22(8-0), 23(8-0), 24(7-11), 25(3-18), 84/5/2(2-5), 8(8-0), 15(8-0), 92/5(7-2), 8(8-0), 15(8-0), 16(8-0), 17(8-0), 18(8-0), 93/3(7-11), 4(7-11), 5/1(1-3), 1(7-3), 2(7-11), 5/2(3-4), 8/1(2-12), 11(7-12), 12(8-0), 13(8-0), 14(8-0), 15/1(2-8), 15/2(2-0), 16/1(1-14), 16/2(2-14), 17(8-0), 18(8-0), 6/2(1-18), 7(8-0), 8(8-0), 9(8-0), 10(7-12), 19(8-0), 20(7-12), 23(8-0), 24(8-0), 25/1(3-4), 25/2(1-4), 94/1(8-0), 2(8-0), 3(8-0), 4(8-0), 5(8-0), 6(8-0), 7(8-0), 8(8-0), 9(8-0), 10(8-0), 11(8-0), 12(8-0), 13(8-0), 14(8-0), 15(8-0), 17(8-0), 18(8-0), 19(8-0), 20(8-0), 62/16(7-4), 25(8-0), 83/21(9-16), 22(4-15), 115/1(8-0), 2(8-0), 3(8-0), 8(8-0), 9(8-0), 10(7-6), 11(7-2), 12(8-0), 13(8-0), 17/3(2-2), 18(8-0), 19(8-0), 20(8-4), 21/2(4-12), 22(8-0), 23/1(8-13), 116/5/2(0-16), 125/1/2(2-0), 2(7-12), 3/1(3-11), 9(0-3), 10/1(0-4), 94/21(8-0), 22(8-0), 23(8-0), 24(8-0), 81/1(8-0), 2(8-0), 3(8-0), 8(8-0), 9(8-0), 10(8-0), 11(8-0), 12(8-0) & 13(8-0) and the Gram Panchayat Jassour Kheri, Block Bahadurgarh, District Jhajjar passed a resolution No. 1 dated 8.3.2010 for sale of its land measuring 83 Acre 4 Kanal 16 Marla falling in Khasra No. 82/12(8-0), 82/13(8-0), 82/8(8-0), 82/9(8-0), 85/20(8-0), 83/6(8-0), 83/7(8-0), 83/5(8-0), 84/8(8-0), 84/9(8-0), 85/11(8-0), 85/12(8-0), 82/1(8-0), 82/20(8-0), 82/21(8-0), 82/19(8-0), 82/22(8-0), 82/10(8-0), 82/11(8-0), 30/22/2(4-8), 30/23(8-0), 30/24(8-0), 30/25/1(6-14), 60/19(8-0), 50/20(8-0), 64/1/2(4-0), 64/2(8-0), 64/3(8-0), 64/6(8-0), 64/7(8-0), 100/3(8-0), 100/4(8-0), 100/7(1-18), 100/8(1-13), 65/1(8-0), 51/2(8-0), 51/3(8-0), 51/4(10-8), 65/2(8-0), 64/4(8-0), 64/5(8-0), 51/16(8-0), 51/17(8-8), 51/24(8-12), 51/25(8-0), 50/21(8-0), 50/22(8-0), 50/23(8-0), 50/8(8-0), 50/11(8-0), 50/12(8-0), 50/13(8-0), 64/18(8-0), 64/17(8-0), 64/18(8-0), 64/19/1(4-0), 64/22/2(3-18), 64/23(8-0), 64/24(8-0), 64/25(8-0), 65/21(8-0), 51/15(11-2), 50/24(8-0), 60/25(7-12), 64/12(8-0), 64/13(8-0), 64/14(8-0), 64/15(8-0), 65/9(8-0), 65/10(8-0), 82/18(8-0), 82/23(8-0), 100/1(8-0), 100/2(8-0), 100/9(1-2), 100/10(0-18), 100/5(8-0), 100/8(1-7), 82/24(8-0), 82/25(8-0), 82/14(8-0), 82/7(8-0), 82/15(8-0), 50/16(8-0), 50/18(8-0), 51/7(6-14), 51/8(8-0), 51/9(8-0), 51/12/1(2-0), 51/13/1(7-2) & 51/14/1(3-2) (total area of both the Gram Panchayats is 206 Acre 7 Kanal 13 Marla) to the Department of Atomic Energy, Government of India for the purpose of establishing Centre of Excellence for Global Deployment of Nuclear Energy at Market rate.



From

Director,  
Fire Service, Haryana,  
Panchkula.

To

M/s Global Centre for Nuclear Energy Partnership,  
Department of Atomic-Energy, Anushakti Bhawan,  
CSM Marg, Mumbai-01.

Memo No. DFS/SF/2018/962/ 113526  
Dated: 19/12/18

**Subject: - Approval of Part fire fighting scheme from the fire safety point of view of the Residential Building of Phase-II Institutional Campus and Residential Township-Type-IIIC Housing Building for Global Centre for Nuclear Energy Partnership (GCNEP) at Kheri Jasaur and Jasaur Kheri Village in the State of Haryana.**

With reference to your letter No. FSB/175, dated 19.09.2018 on the subject cited above. In this connection, this is to inform you that the proposed building plans have been scrutinized from fire safety point of view and observed that the above said low-rise Residential building blocks are having maximum height 9.10 mtrs and consisting of G+02 upper floors. Low - Rise Residential blocks, do not fall under the purview of Haryana Fire Service Act 2009, Section 15 (1)/NBC-IV,1.2, for which clearance from the department is required.


  
Deputy Director (Technical)-I,  
for Director, Haryana Fire Service,  
Panchkula.

Endst. No- DFS/SF/2018/962/

Dated

A copy is forwarded to the Fire Station Officer, Bahadurgarh (Jhajjar) with reference to his Memo No. FSB/175, dated 19.09.2018 for information and necessary action.

  
Deputy Director (Technical)-I,  
for Director, Haryana Fire Service,  
Panchkula.

  
श्रीकृष्ण गुप्ता / SHRIKRISHNA GUPTA  
परियोजना निदेशक / Project Director  
वैश्विक नाभिकीय ऊर्जा साझेदारी केंद्र (जी.सी.एन.ई.पी.)  
Global Centre for Nuclear Energy Partnership (G.C.N.E.P.)  
प.ऊ.वि. भारत सरकार / D.A.E., Government of India  
बहादुरगढ़ (हरियाणा) / Bahadurgarh (Haryana) - 121501

From

Director,  
Fire Service, Haryana,  
Panchkula.

To

M/s Global Centre for Nuclear Energy Partnership,  
Department of Atomic-Energy, Anushakti Bhawan,  
CSM Marg, Mumbai-01.

Memo No. DFS/SF/2018/963/ 113528  
Dated: 19/12/18

**Subject: - Approval of Part fire fighting scheme from the fire safety point of view of the Residential Building of Phase-II Institutional Campus and Residential Township-Type-IVD Housing Building for Global Centre for Nuclear Energy Partnership (GCNEP) at Kheri Jasaur and Jasaur Kheri Village in the State of Haryana.**

With reference to your letter No. FSB/173, dated 19.09.2018 on the subject cited above. In this connection, this is to inform you that the proposed building plans have been scrutinized from fire safety point of view and observed that the above said low-rise Residential building blocks are having maximum height 9.10 mtrs and consisting of G+02 upper floors. Low - Rise Residential blocks, do not fall under the purview of Haryana Fire Service Act 2009, Section 15 (1)/NBC-IV,1.2, for which clearance from the department is required.


  
Deputy Director (Technical)-I,  
for Director, Haryana Fire Service,  
Panchkula. 

Endst. No- DFS/SF/2018/963/

Dated

A copy is forwarded to the Fire Station Officer, Bahadurgarh (Jhajjar) with reference to his Memo No. FSB/173, dated 19.09.2018 for information and necessary action.

  
Deputy Director (Technical)-I,  
for Director, Haryana Fire Service,  
Panchkula.

  
श्रीकृष्ण गुप्ता / SHRIKRISHNA GUPTA  
परियोजना निदेशक / Project Director  
श्वेतक नाभिकीय ऊर्जा साझेदारी केन्द्र (जी.सी.एन.ई.पी.)  
Global Centre for Nuclear Energy Partnership (G.C.N.E.P.)  
ए.ऊ.वि., भारत सरकार / D.A.E., Government of India  
बहादुरगढ़ (हरियाणा) / Bahadurgarh (Haryana) - 124507

**From** Director General

Fire Service, Haryana Panchkula

**To** M/s GCNEP

Kheri Jasaur Bahadurgarh Jhajjar Haryana 124505

**Memo No. FS/2018/135 dated : 28/11/2018**

**Subject : Approval of fire fighting scheme Under 15 mtrs. from the fire safety point of view for Group D- Assembly Building at GCNEP Kheri Jasaur Bahadurgarh Jhajjar Haryana 124505 of GCNEP :**

Reference your Transaction Id 070421823000197 dated: 06/09/2018 on the subject cited above.

Your case for the approval of fire fighting scheme has been examined by the team of Fire Station Officers, Bahadurgarh Main, . The Fire fighting scheme is found as per the National Building Code of India Part IV guidelines. Therefore your proposed fire fighting scheme is hereby approved as per following detail from the fire safety point of view with the following conditions:-

| <b>Tower Name</b> | <b>Floor Detail</b> | <b>Terrace Height of Last Livable Floor(In Meters)</b> | <b>Ground Coverage</b> |
|-------------------|---------------------|--|------------------------|
| Block A           | Ground only         | 8.80   | 2000.00                |
| Block B           | Ground only         | 5.00   | 3150.00                |

| <b>Tower Name</b> | <b>Basement Level</b> | <b>Basement Area</b> | <b>Basement Remarks</b> |
|-------------------|-----------------------|----------------------|-------------------------|
|                   | NIL                   | NIL                  | NIL                     |

- 1) The proposed fire fighting scheme is approved as submitted in the building plan subject to the approval of building plan by the competent authority.
- 2) The approval of fire scheme by this office doesn't absolve the firm from his responsibility from all consequences, in case of fire due to any deficiencies or anything left out in the scheme submitted by you.
- 3) Overhead & underground water tanks provided for firefighting shall be so constructed in such a way that the domestic water tank shall filled from overflow of the fire Water tanks.
- 4) As soon as the installations of fire fighting arrangements are completed, the same may be got inspected/ tested and clearance should be obtained from this office.
- 5) If the infringement of Byelaws remains un- noticed the Authority reserves the right to amend the Plans/Fire Fighting Scheme as and when any such infringement comes to notice after giving an opportunity of being heard and the Authority shall stand Indemnified against any claim on this account.
- 6) If you fail to comply with any of the above terms & conditions you will be liable to be punished as per Chapter-III Section 31 Sub-Section 1 & 2 of Fire Act 2009 i.e. imprisonment for a term which may extend to three month or fine which may extend to five thousand rupees or both.
- 7) The staircase shall be made with the specified material enabling it non-slippery.
- 8) If the gap between ceiling and false ceiling is more than 800 mm then upright sprinkler and detectors above false ceiling & pendent sprinkler below false ceiling shall be installed in the building

**Remarks:- Application Updated**



Deputy Director (Technical)-I,  
for Director General, Fire  
Service, Haryana  
Panchkula



Digitally signed by Sumesh Kumar  
Dua  
Date: 2018.11.28 17:28:29 +05:30  
Reason: Digital Verification

श्रीकृष्ण गुप्ता / SHRIKRISHNA GUPTA  
परियोजना निदेशक / Project Director  
द्विस्तरीय परमाण्वीय ऊर्जा साझेदारी केंद्र (जी.सी.एन.ई.पी.)  
Global Centre for Nuclear Energy Partnership (G.C.N.E.P.)  
पु.ऊ.वि., भारत सरकार / D.A.E., Government of India  
बहादुरगढ़ (हरियाणा) / Bahadurgarh (Haryana) : 124505

From

Director General,  
Fire Service, Haryana,  
Panchkula.

To

M/s Global Center for Nuclear Energy Partnership,  
Village-Jasaur Kheri, Teh-Bahadurgarh,  
Distt. Jhajjar.

Memo No. DFS/Supdt/2017/751  
Dated: 2/11/17

82539

**Subject: Approval of fire fighting scheme from the fire safety point of view of the Assembly Building (Central Building) at village-Jasaur Kheri, The-Bahadurgarh, Distt. Jhajjar of M/s Global Center for Nuclear Energy Partnership.**

Reference on the subject cited above.

Your case for the approval of fire fighting scheme has been examined as recommended by the Fire Station Officer, Bahadurgarh, Jhajjar. The Fire fighting scheme is found as per the N.B.C. 1983 Part IV revised 2005/ guidelines. Therefore, your proposed fire fighting scheme is hereby approved from the fire safety point of view with the following conditions:-

- 1) The proposed fire fighting scheme is approved as submitted in the building plan subject to the approval of building plan by the competent authority.
- 2) The approval of fire scheme by this office doesn't absolve the firm from his responsibility from all consequences, in case of fire due to any deficiencies or anything left out in the scheme submitted by you.
- 3) Overhead & underground water tanks provided for firefighting shall be so constructed in such a way that the domestic water tank shall filled from overflow of the fire Water tanks.
- 4) As soon as the Installations of fire fighting arrangements are completed, the same may be got inspected/ tested and clearance should be obtained from this office.
- 5) If the infringement of Byelaws remains un-noticed the Authority reserves the right to amend the Plans/Fire Fighting Scheme as and when any such infringement comes to notice after giving an opportunity of being heard and the Authority shall stand Indemnified against any claim on this account.
- 6) If you fail to comply with any of the above terms & conditions you will be liable to be punished as per Chapter-III Section 31 Sub-Section 1 & 2 of Fire Act 2009 i.e. imprisonment for a term which may extend to three month or fine which may extend to five thousand rupees or both.
- 7) The staircase shall be made with the specified material enabling it non-slippery.
- 8) If the gap between ceiling and false ceiling is more than 800 mm then upright sprinkler and detectors above false ceiling & pendent sprinkler below false ceiling shall be installed in the building.

Deputy Director (Technical)-I,  
for Director General, Haryana Fire Service,  
Panchkula.

Endst. No- DFS/Supdt/2017/751/

Dated:

A copy is forwarded to the Fire Station Officer, Bahadurgarh, Jhajjar with reference to his Memo No. 390/FSB, dated 12.09.2016 for information and necessary action.

Deputy Director (Technical)-I,  
for Director General, Haryana Fire Service,  
Panchkula.

श्रीकृष्ण गुप्ता / SHRIKRISHNA GUPTA  
परियोजना निदेशक / Project Director  
वैश्विक नाभिकीय ऊर्जा साझेदारी केन्द्र (जी.सी.एन.ई.पी.)  
Global Centre for Nuclear Energy Partnership (G.C.N.E.P.)  
प.ऊ.वि., भारत सरकार / D.A.E., Government of India  
बहादुरगढ़ (हरियाणा) / Bahadurgarh (Haryana) - 124507



Ref: GCNEP / *Reluc/01*

Date: 26<sup>th</sup> December 2013

To  
Project Director, GCNEP  
Reactor Control Division,  
Bhabha Atomic Research Centre  
Mumbai.


Sub: **Construction of Institutional Campus and Residential Township for Global Centre for Nuclear Energy Partnership (GCNEP) at KheriJasaur and JasaurKheri village in the State of Haryana**  
- Electric Supply for GCNEP Campus & Township

Ref: 1. Your letter dated 26.12.13 and Check list received from State Environment Impact Assessment Authority (SEIAA).

Dear Sir,

This is to assure you that the necessary Electricity supply shall be provided for, both the sites at KheriJasaur and Jasaur Kheri villages, for setting up GCNEP project.

*as per above instruction*

  
SDO HBVN,  
Bahadurghar, Haryana.  
SDO S/U S/DIVN,  
HBVN Bahadurgharh

  
श्रीकृष्ण गुप्ता / SHRIKRISHNA GUPTA  
परियोजना निदेशक / Project Director  
द्वैतविक नभिकीय कर्जा साझेदारी केंद्र (जी.सी.एन.ई.पी.)  
Global Centre for Nuclear Energy Partnership (G.C.N.E.P.)  
प.ऊ.वि., भारत सरकार / D.A.E., Government of India  
बहादुरगढ़ (हरियाणा) / Bahadurgharh (Haryana) - 124507



Government of India  
भारत सरकार

Phone: +912225595204

परमाणु ऊर्जा विभाग  
Department of Atomic Energy  
वैश्विक नाभिकीय ऊर्जा साझेदारी केन्द्र  
GLOBAL CENTRE FOR NUCLEAR ENERGY PARTNERSHIP



Y. S. Mayya, OS  
Project Director, GCNEP

Date: 26<sup>th</sup> December 2013

Ref: GCNEP / 83

To  
The Chairman, SEIAA  
ParytanBhawan  
1<sup>st</sup> Floor, Sector-2, Panchkula  
Tel: 0712 2565232

Sub: **Construction of Institutional Campus and Residential Township for Global Centre for Nuclear Energy Partnership (GCNEP) at KheriJasaur and JasaurKheri village in the State of Haryana.**

- Submission of Form-1, Form-1A, Environmental Management Plan and Conceptual Plan for Environmental Clearance

Ref: 1. Department's proposal submitted on 30 October 2013.  
2. Check list received from State Environment Impact Assessment Authority (SEIAA) dated 06.11.2013 received on 09.12.13.

Dear Sir,

Department of Atomic Energy, Government of India decided to set up institutional campus and residential township for Global Centre for Nuclear Energy Partnership (GCNEP) project at KheriJasaur and JasaurKheri village near Bahadurgarh, in the State of Haryana.

The details of the project were submitted to your office with reference to point no.1.

Further as per the prerequisite in check list above referred at point no.2, We Undertake the following:-

- That no construction has been started at the site along with latest attested photograph.
- That we will not encroach the revenue rasta passing through the project area shown in the zoning plan and layout plan.
- That we will keep the ROW required for HT wire passing through the project area as per Government instruction.
- That we will not use ground water for construction and will use treated water confirmation the ISI standards for building construction.
- That we will use ultra low sulphur diesel.
- That provision for Helipad shall be made in case of the building having height more than 6 meter. Provision of atleast one Hydraulic ladder for high rise building shall also be made.
- The infrastructure will not obstruct or divert the natural flow of water covered or open nallah, drainage of rain water as per natural flow of water.

Thanking you

Yours faithfully

Project Director, GCNEP  
Reactor Control Division, Bhabha Atomic Research Centre  
Tel: 022-2559 5204  
E-mail: ysmayya@barc.gov.in

**Y. S. MAYYA**  
Project Director, GCNEP  
DAE, Govt. of India  
RCnD, BARC, Mumbai-85

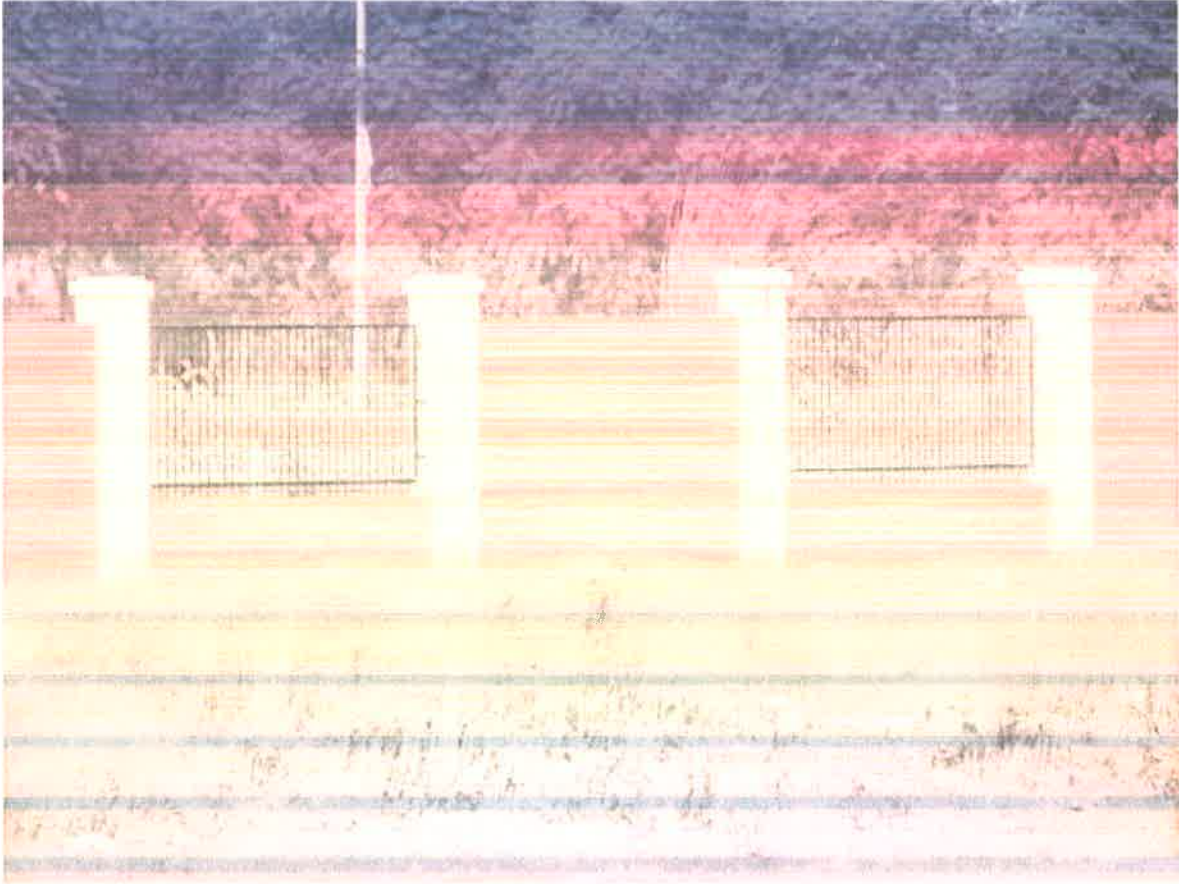
वाई.एस. मय्या / Y.S. Mayya  
परियोजना निदेशक / Project Director  
वैश्विक नाभिकीय ऊर्जा साझेदारी केन्द्र (जी.सी.एन.ई.पी.)  
Global Centre for Nuclear Energy Partnership (GCNEP)  
भारत सरकार / Government of India  
रेक्टर नियंत्रण प्रभाग / Reactor Control Division  
भारत सरकार / Bhabha Atomic Research Centre, Mumbai-400085

श्रीकृष्ण गुप्ता / SHRIKRISHNA GUPTA  
परियोजना निदेशक / Project Director  
वैश्विक नाभिकीय ऊर्जा साझेदारी केन्द्र (जी.सी.एन.ई.पी.)  
Global Centre for Nuclear Energy Partnership (G.C.N.E.P.)

Global Centre for Nuclear Energy Partnership  
Reactor Control Division  
Trombay, Mumbai - 400085

258

**ANNEXURE XV**



**Site Barricade with High wall**

श्रीकृष्ण गुप्ता / SHRUKRISHNA GUPTA  
परियोजना निदेशक / Project Director  
वैश्विक नाभिकीय ऊर्जा साझेदारी केन्द्र (जी.सी.एन.ई.पी.)  
Global Centre for Nuclear Energy Partnership (G.C.N.E.P.)  
प.ऊ.वि., भारत सरकार / D.A.E., Government of India  
बहादुरगढ़ (हरियाणा) / Bahadurgarh (Haryana) - 124507



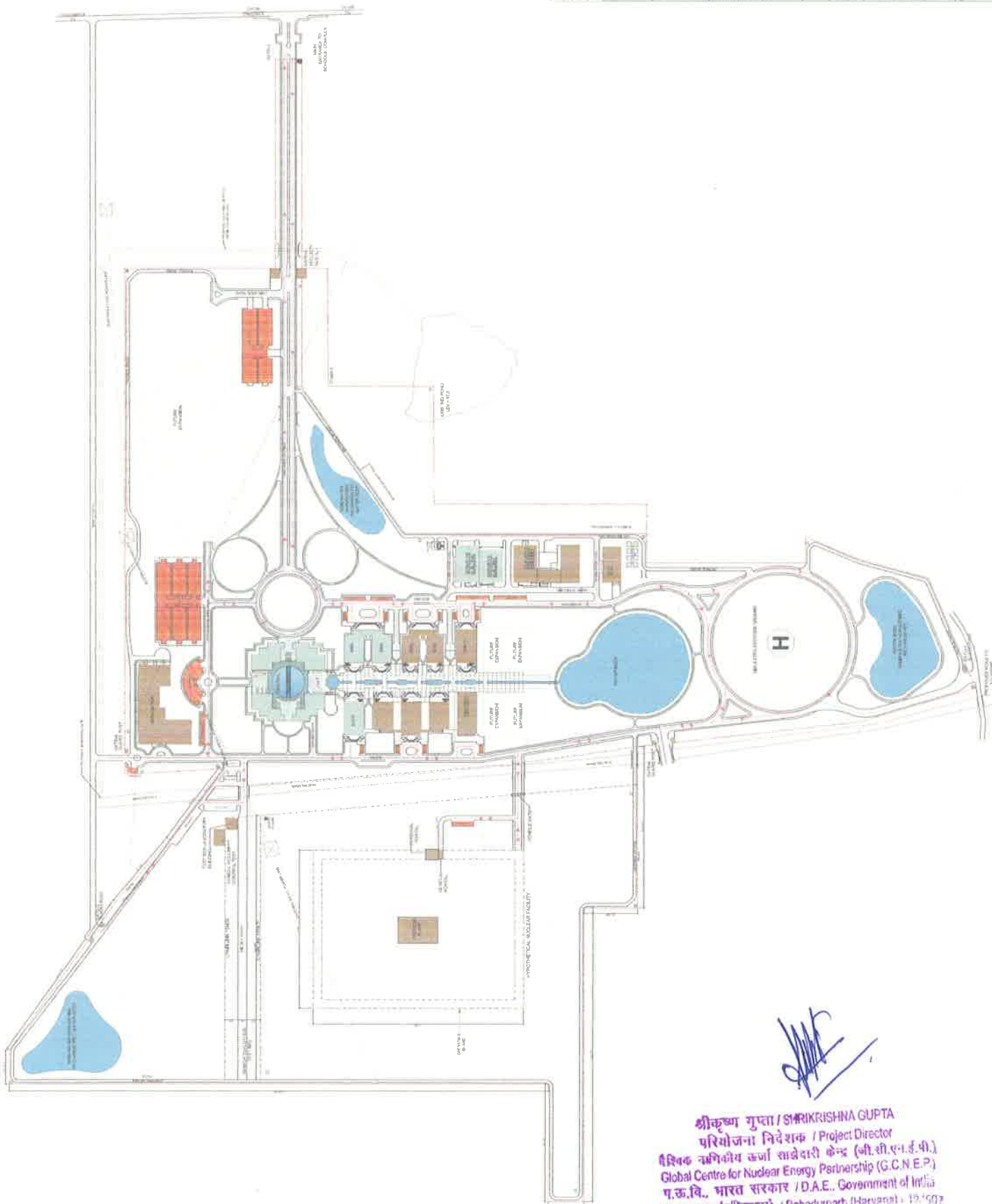
**Water Sprinkling at Site.**

श्रीकृष्ण गुप्ता / SHRIKRISHNA GUPTA  
परियोजना निदेशक / Project Director  
वैश्विक नाभिकीय ऊर्जा साझेदारी केंद्र (जी.सी.एन.ई.पी.)  
Global Centre for Nuclear Energy Partnership (G.C.N.E.P.)  
प.ऊ.वि., भारत सरकार / D.A.E., Government of India  
बहादुरगढ़ (हरियाणा) / Bahadurgarh (Haryana) - 124507



**LEGEND**

|  |                                  |
|--|----------------------------------|
|  | BUILDING FOOTPRINT - EC ACCORDED |
|  | BUILDING FOOTPRINT - DRAINSON    |
|  | WATER BODY                       |
|  | ROADS                            |
|  | WALKWAYS                         |
|  | FUTURE DEVELOPMENT               |
|  | EC ACCORDED                      |
|  | PARKING AREA                     |
|  | VEHICULAR MOVEMENT               |
|  | BI-CYCLE TRACKS                  |
|  | PEDESTRIAN MOVEMENT              |
|  | PATROL ROAD                      |



| NO. | DATE | DESCRIPTION |
|-----|------|-------------|
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |

**REVISIONS**

FOR THE ARCHITECTURE AND ENGINEERING DESIGN OF THE PROJECT OF CONSULTING ENGINEERING SERVICES (INDIA) PVT. LTD. AS PART OF THE AGREEMENT AND IT SHALL BE APPROVED CONC. TO THE TERMS AND CONDITIONS OF THE CONTRACT UNDER WHICH IT IS ISSUED. FOR ALL THE PURPOSES OTHER THAN FOR WHICH IT IS ISSUED.

**GLOBAL CENTRE FOR NUCLEAR ENERGY PARTNERSHIP, BEHADURGARH, HARYANA G C N E P**

OWNER: DIRECTORATE OF CONSTRUCTION SERVICES AND REPAIR MANAGEMENT  
 PROJECT: Global Centre for Nuclear Energy Partnership, Behadurgarh, Haryana  
 PROJECT NO.: GRASS ROOTS RESEARCH & CREATION INDIA (P) LTD., BEHADURGARH, HARYANA  
 DRAWING NO.: 471202801GCCNEP/EA/C2

**CAMPUS**

ENVIRONMENTAL CLEARANCE: [ ]  
 APPROVED BY: [ ]  
 DATE: [ ]

**CAMPUS TRAFFIC CIRCULATION PLAN**

DRG. NO.: 471202801GCCNEP/EA/C2

CONSULTING ENGINEERING SERVICES (INDIA) PVT. LTD.  
 14, J.P. Road, Vasant Vihar, New Delhi - 110014

**श्रीकृष्ण गुप्ता / SHRIKRISHNA GUPTA**  
 परियोजना निदेशक / Project Director  
 वैश्विक न्यूक्लियर ऊर्जा साझेदारी केन्द्र (जी.सी.एन.ई.पी.)  
 Global Centre for Nuclear Energy Partnership (G.C.N.E.P.)  
 प.ऊ.वि., भारत सरकार / D.A.E., Government of India  
 बहादुरगढ़ (हरियाणा) / Behadurgarh (Haryana) - 131502