

Environmental Clearance Compliance Report for the period April 2018-September 2018



Compliance Status towards the conditions stipulated in the Environmental Clearance (EC) for the expansion in the existing premises of M/s Anthem Biosciences Private Limited at KIADB Industrial Area, Bommasandra, Bengaluru (EC No. SEIAA:6: IND:2013 dated 3rd October 2013)

Compliance period: April 2018-September 2018

Sl. No.	Conditions Stipulated in the EC	Compliance Status/ Remarks
SPECIFIC CONDITIONS		
1	National Emission standards for organic chemicals Manufacturing Industry issued by the ministry vide GSR 608 (E) dated 21 st July 2010 and amended from time to time shall be followed by the unit.	National Emission standards issued by the ministry vide GSR 608 (E) dated 21st July 2010 is being followed
2	The industrial effluent generation shall be sent to common effluent treatment plant (CETP) The domestic sewage shall be treated in the existing ETP.	High TDS effluent (Industrial effluent) is sent to CETP (Pai & Pai Chemicals and Bangalore Eco Park Pvt Ltd). The details of the same are submitted to KSPCB on a monthly basis. The domestic sewage is treated in the existing ETP. The treated water is used for gardening.
3	The project authorities shall maintain daily logbook of the quantity and quality trade effluent generated and dispatched to the CETP.	Records of trade effluent handed over to CETP are maintained.
4	Total water requirement from KIADB water supply shall not exceed 41 KLD and prior permission shall be obtained from the concerned authority. No ground water shall be used.	Water consumed for the process is less than 41 KLD. Cess returns were submitted on a monthly basis to KSPCB. Records are being maintained regarding the Consumption of water. Ground water is not used.
5	The process emissions from the boiler shall be dispersed through stack of adequate height as per CPCB/KSPCB standards. The gaseous emissions from the DG set shall be dispersed through stack as per CPCB standards shall be provided. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution.	Stack of adequate height, porthole & sampling platforms are provided as per CPCB standards. Acoustic enclosures are provided to the DG sets to mitigate the noise pollution.

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6	<p>Ambient air quality data (AAQ data) shall be collected as per NAAQ (National Ambient Air Quality) standards notified by the ministry vide G.S.R No.826 (E) dated 16th September 2009. The levels of PM₁₀, SO₂, NO_x, VOC and HCl shall be monitored in the ambient air and emissions from the stacks and displayed at convenient location near the main gate of the company. The company shall upload the results of monitored data on its website and shall update the same periodically. It shall simultaneously be sent to Regional office of Ministry of Environment & Forests (MOEF) Bengaluru, State Environment Impact Assessment Authority (SEIAA) Karnataka, and respective zonal offices of CPCB & KSPCB.</p>	<p>Ambient air quality monitoring being periodically carried out and the data is being submitted to KSPCB on regular basis. The levels of pollutants being monitored and are displayed on the consent board near the main gate of the company. The data is shared with KSPCB every month. The Ambient Air Quality trend is attached as Annexure-01</p>
7	<p>The company shall upload the status of compliance of its stipulated environmental conditions, including results of monitored data on its website and shall update the same periodically. It shall simultaneously be sent to Regional office of MOEF Bengaluru, SEIAA Karnataka, respective zonal offices of CPCB & KSPCB. The levels of SPM, RSPM, SO₂ and NO_x and VOC (ambient levels) and emissions from the stack shall be monitored and displayed at convenient location near the main gate of the company.</p>	<p>Emissions from the process stack are being monitored every month and the data is being shared with KSPCB. The levels of PM, SO₂, NO_x, NMHC from DG emission are also monitored and displayed on the consent board near the main gate of the company.</p>
8	<p>The company shall obtain authorization for collection, storage and disposal of hazardous waste under the Hazardous waste rules 2008 for management of hazardous waste and prior permission from KSPCB shall be obtained for disposal of solid/hazardous waste in TSD. The concerned company shall undertake measures for firefighting facilities in case of emergency.</p>	<p>Authorization from KSPCB for collection, storage and disposal of hazardous wastes has been obtained. We have advanced firefighting system such as fire hydrant, fire extinguishers to handle emergencies.</p>

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9	<p>In plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Fugitive emissions shall be controlled by providing closed storage, closed handling & conveyance of chemicals/materials, multi cyclone separator and water sprinkling system. Dust suppression system including water sprinkling system shall be provided at loading/unloading areas to control dust emissions. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions shall conform to limits stipulated by KSPCB.</p>	<p>Industry has provided closed storage, closed handling & conveyance system for chemicals / materials handling. The industry has also provided dust collectors for operations where fugitive dusts are expected. The underground tanks in the tank farm have been provided with nitrogen inertization system with breather valves and flame arrestors. These engineering controls would help in minimizing fugitive emissions in the work zone.</p>
10	<p>Hazardous chemicals shall be stored in tanks farms, drums, carboys etc. flame arrestors shall be provided on tank farm. Solvent transfer shall be by pumps.</p>	<p>Hazardous chemicals are stored in leak proof drums. Industry has provided flame arrestors for all the reactors and tank farm. Solvent transfer is being done using pumps.</p>
11	<p>Company shall undertake waste minimization measures as stated below. For control of fugitive emission, following steps shall be taken:</p> <ul style="list-style-type: none"> ➤ Closed handling system shall be provided for chemicals ➤ Reflux condenser shall be provided over reactor ➤ System of leak detection and repair of pump/pipeline based on preventive maintenance ➤ Acids shall be taken from storage tanks to reactors through closed pipeline. storage tanks shall be vented through receiver trap and condenser operated on chilled water ➤ Cathodic protection shall be provided to underground solvent storage tanks 	<ul style="list-style-type: none"> • Chemicals are handled in closed system • All reactors are equipped with Reflux condenser and sub-cooler. • Pumps are serviced based on preventive maintenance • Acids are generally obtained from suppliers in carboys. Acids are transferred from carboys to the reactor in a closed system using AODD pumps. • The underground solvent storage tanks are of SS – 304
12	<p>Solvent Management shall be as follows:</p> <ul style="list-style-type: none"> ➤ Solvent used in the process shall be completely 	<ul style="list-style-type: none"> ➤ Solvents are recovered and re-used wherever feasible ➤ Reactors are connected to chilled brine system.

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	<p>recovered and reused.</p> <ul style="list-style-type: none"> ➤ Reactor shall be connected to chilled brine system. ➤ Reactor & solvent handling pumps shall have mechanical seals to prevent leakages. ➤ Condensers shall be provided with sufficient HTA and residence time to achieve more than 95% recovery. ➤ Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. ➤ Entire plant shall be flame proof. Solvent storage tanks shall be provided with breather valve to prevent losses. 	<ul style="list-style-type: none"> ➤ Reactor and solvent handling pumps have mechanical seals to prevent leakages ➤ Condensers are provided with sufficient HTA and residence time to achieve more than 95% recovery. ➤ Proper earthing is provided to the electrical equipment where solvent handling is done. ➤ Entire plant is flame proof. The underground solvent storage tanks are provided with breather valve to prevent losses.
13	No effluent shall be discharged outside the factory premises and zero discharge concept shall be adopted.	Tertiary treated sewage & tertiary treated low TDS effluent is used for gardening within the premises.
14	Multi cyclone followed by bag filter shall be provided to the boilers to control particulate emissions within 100 mg/Nm ³ . The gaseous emissions shall be dispersed through stack of adequate height as per CPCB /KSPCB guidelines	There is no boiler
15	Two stage chilled water/ caustic scrubber shall be provided to process vents to control HCl. Two stage scrubbers with caustic lye solution shall be provide to process vents to control SO ₂ . The scrubbing media shall be sent to ETP for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.	Wet scrubbers are provided to neutralize process emissions. The scrubbant is handed over to CETP for further treatment as it contains high TDS. Scrubbers are monitored for acid mist and particulate matter on a regular basis and reports of the same are submitted to KSPCB every month.

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16	As proposed, process organic residue and spent carbon shall be sent to authorized incinerators. ETP sludge, process (inorganic) and evaporation salt shall be disposed off to TSDF. The ash from boiler shall be sold to brick manufacturer.	Process organic residue and spent carbon is sent to KSPCB authorized incinerators. ETP sludge, process (inorganic) and evaporation salt is disposed off to TSDF. Hazardous waste Manifest Form 10 being maintained at site from the start of industry. There is no generation of boiler ash from the industry as there is no boiler.
17	Boiler ash shall be stored separately as per CPCB guidelines so that it shall not adversely affect the air quality, becoming air borne by wind, or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust shall be avoided	There is no generation of boiler ash from the industry as there is no boiler
18	During transfer of materials, spillages shall be avoided and garland drains be constructed to avoid mixing of accidental spillage with domestic waste and storm drains.	Industry has provided closed storage, closed handling & conveyance system for chemicals / materials handling to eliminate spillages. Industry has provided garland drains all around the buildings to collect the roof & surface run off conveying the same to rain water harvesting pits for ground water recharge. Industry has constructed a compound wall to prevent entry of discharge from other premises. A dedicated line has been provided for conveying the untreated effluent to the ETP. For using the treated effluent for gardening a pipeline has been provided.
19	The company shall harvest surface as well as rain water from the rooftops of the buildings and storm water drains to recharge the ground water and use the same water for the various activities of the project to conserve fresh water.	Rain water harvesting has been implemented in the premises. The rain water from the rooftops of the buildings, are routed to the rain water harvesting pit (100 KL capacity)
20	The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per OISD 117 norms.	Earthing and Bonding is practiced during charging of material into the reactor. Inertization is practiced for prevention of flammable atmosphere inside the reactor during manufacturing. Advanced Fire Fighting system is installed in the premises to protect against possible fire hazards during

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		manufacturing process in material handling.
21	Training shall be imparted to all employees on safety and health aspects of chemical handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis.	Training is imparted to all employees on safety and health aspects of chemical handling. Training on Pre-employment and annual health checkup for all employees are undertaken on a regular basis.
22	Usage of PPE's by all employees / workers shall be ensured.	Industry is continuously enforcing our employees/workers on the usage of PPE. Periodic training is imparted to all the employees on the usage of PPE's.
23	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per factories act.	Occupational health surveillance for all the employees are undertaken on regular basis and the records are maintained.
24	Green belt shall be developed in at least 33% of area with suitable species of the plants as per CPCB guidelines to mitigate the effects of fugitive emissions. Selection of plant species shall be as per CPCB guidelines.	33% of the area is already developed as green belt. The list of species that has been planted in the premises is enclosed as Annexure-2
25	Adequate financial provisions shall be made in the budget of the project for implementation of the above suggested environmental safeguards. Funds so earmarked shall not be diverted for any other purposes.	Adequate financial provisions are made in the budget for implementation of the environmental safeguards. An annual average revenue of Rs.75 lakhs is provided for the implementation of environmental safeguards.
26	The company shall comply with the recommendations made in EIA/EMP/risk assessment report. Risk assessment shall be included in the safety manual.	We have implemented an Integrated Management system. For all the activities we carry out, a Hazard Identification and risk assessment (HIRA) identifying the significant environmental aspects and significant hazards is prepared on a periodic basis.
27	Provision shall be made for the housing for the construction labor within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile sewage treatment plant, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structure to	During construction phase of the project, provision has been made for the construction labors. Now, as the industry is in operational phases, requirement for small repair works will arise. Such workers are provided with safe drinking water and all other necessary infrastructure.

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Sl. No.	Conditions Stipulated in the EC	Compliance Status/ Remarks
	be removed after completion of project. All the construction wastes shall be managed so that there is no impact on the surrounding environment.	
28	The proponent shall recover salts including lithium to be addressed and documented.	Currently, lithium based compounds are not used for the production of intermediates and final end products. However, if products requiring the use of lithium arise, efforts shall be made to recover lithium and the same shall be documented.
29	The proponent shall use custom synthesis only for research & not for commercial purpose.	We are using custom synthesis only for research purpose
30	The proponent shall adopt good management practices & green chemistry.	Industry has adopted good management practices & green chemistry. Industry is certified for ISO 9001:2015, ISO 14001:2015 and OHSAS 18001:2007 by BVQI
31	The proponent shall adopt zero discharge technology	Domestic sewage & low TDS effluent is treated in the existing effluent treatment plant. Treated water is used for gardening within the premises.
32	Custom synthesis of organic compounds production from R&D unit and pilot plant shall involve the reaction processes like hydrogenation, esterification, BOC protection, chlorination and nitration only. The organic compounds manufactured from R&D and pilot plant shall not deviate from the above mentioned reaction processes (i.e. hydrogenation, esterification, BOC protection, chlorination and nitration only) that have been considered for environment impact assessment.	This has been ensured during custom synthesis of organic compounds from R&D unit and pilot plant.
33	The project authorities shall spend Rs.2 lacs towards corporate social responsibility made during SEAC dated 21.09.2013 and report be submitted to the authority	The CSR activities are conducted in a phase wise manner.
34	The project authorities also shall earmark at least 5% of the total cost of the project towards the corporate social responsibility and item wise details along with time bound action plan shall be prepared and submitted to the authority.	

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GENERAL CONDITIONS		
1	The project authorities shall strictly adhere to the stipulations made by the KSPCB.	Noted & accepted
2	At no time, the emissions shall exceed the prescribed limits. In the event of failure of any pollution control system adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency has been achieved	The emissions are within the prescribed limits.
3	No further expansion/modification in the plant shall be carried out without prior approval of the SEIAA/MOEF as the case may be. In case of deviations or alterations in the project proposal from those submitted to this authority, for clearance a fresh reference shall be made to the authority to assess the adequacy of conditions imposed & to add additional environmental protection measures required, if any.	This is being ensured
4	The gaseous emissions and particulate matter along with RSPM levels from various process units shall conform to the standards prescribed by the concerned authorities from time to time. At no time, the emission levels shall go beyond the stipulated standards. In the event of failure of pollution control systems adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Stack monitoring for SO ₂ , NO _x and SPM shall be carried	Stack monitoring is being carried out every month and reports are being submitted to KSPCB. The stack monitoring data is attached as Annexure-2
5	The project authorities shall strictly comply with the rules and regulations under manufacture, storage and import of hazardous chemical rules 1989 as amended in Oct 1994 and Jan 2000. All transportation of hazardous chemicals shall be as per MVA 1989. Authorization from KSPCB shall be obtained for	We have obtained authorization from KSPCB for collection, treatment, storage and disposal of hazardous wastes. The rules as per MSIHC are being followed.

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	collection, treatment, storage and disposal of hazardous wastes.	
6	Application of solar energy should be incorporated for illumination of common areas, lighting for gardens and street lighting in addition to provision for solar water heating. A hybrid system or fully solar system for lighting and heating should be provided. Details in this regard is to be submitted to SEIAA.	We have installed motion sensors & energy efficient CFL & LED bulbs for lighting purpose. Currently, we are wheeling solar energy from the third party.
7	The overall noise levels in and around the plant area shall be kept well within the standards (85 dbA) by providing noise control measures including acoustic hoods, silencers, enclosures on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environment Act rules, 1989 viz. 75 dbA(Day time) and 70 dbA(night time)	The ambient noise levels are monitored on a monthly basis and the reports are submitted on a monthly basis to KSPCB. The ambient noise monitoring reports are attached as Annexure-3
8	The project proponent shall also comply with all the environment protection measures and safeguards as per the information provided.	This is being followed
9	The implementation of the project vis a vis environment action plans shall be monitored by MoEF/CPCB and the department of environment and ecology, Bengaluru. Six monthly compliance status report shall be submitted to the monitoring agencies.	We shall submit the compliance report to the monitoring agencies.
10	The project proponent shall inform the public that the project has been accorded environment clearance by the SEIAA and copies of clearance letter are available with the KSPCB and may also be seen at website of the authority at http://www.seiaa.kar.nic.in . This shall be advertised within 7 days from the date of issue of the clearance letter, atleast in two local newspapers that are widely circulated in the region of which one shall be in vernacular language of the locality	Industry has published this in the Hindu and Udayavani dated November 14 th 2013. Industry has also forwarded a copy of this along with a covering letter to KSPCB/CPCB/SEIAA office vide registered post with acknowledgment due on November 18 th 2013.

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	concerned and a copy of the same shall be forwarded to the MoEF regional office at Bengaluru /KSPCB/ CPCB & department of environment & ecology, (DEE) Bengaluru.	
11	The project authorities shall inform the MoEF regional office at Bengaluru /KSPCB/CPCB & DEE, Bengaluru the date of financial closure & final approval of the project by the concerned authorities & date of start of the project.	The EC issued by SEIAA was received in hand on 11 th November 2013 CFE issued by KSPCB was received in hand on 7 th August 2014 The project started in Mid-August 2014
12	The SEIAA, Karnataka may revoke or suspend the clearance if implementation of any of the above conditions is not satisfactory.	Noted & accepted.
13	The SEIAA, Karnataka reserves the right to stipulate additional conditions, if found necessary. The company in a time bound manner will implement these conditions.	Noted & accepted.
14	The above conditions will be enforced inter - alia under the provisions of the Water Act, 1981, the environment act 1986, Hazardous wastes rules 2003 and the Public Liability Insurance Act 1991 along with their amendments and rules.	Noted & accepted.
15	The issue of Environment Clearance doesn't confer any right to the project proponent to operate/ run the project without obtaining statutory clearances/ sanctions from all other concerned authorities.	Noted & accepted.
16	Concealing factual data or submission of false/ fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of environmental act, 1986.	Noted & accepted.
17	Any appeal against this environment clearance shall lie with the National Green Tribunal, if preferred within a	Noted & accepted.

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Sl. No.	Conditions Stipulated in the EC	Compliance Status/ Remarks
	period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	
18	Officials from the DEE Bengaluru/Regional office of MoEF, Bengaluru who would be monitoring the implementation of environmental safeguards should be given full co-operation, facilities and documents/data by the project proponents during their inspection. A complete set of all the documents submitted to MoEF/SEIAA should be forwarded to the CCF, Regional Office of MoEF Bengaluru /DEEBengaluru /Regional Officer, KSPCB Bengaluru.	Documents were already submitted initially to the concerned authorities (Form-1 and Pre-Feasibility report)
19	In the case of any change(s), in the scope of the project, the project would require fresh appraisal by this authority.	Noted & accepted.
20	The authority reserves the right to add additional safeguard measures subsequently, if found necessary and to take action including revoking of the environment clearance under the provisions of the environment (protection) act, 1986 to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.	Noted & accepted.
21	All other statutory clearances such as the approvals for storage of diesel from chief controller of explosives, fire department, civil Aviation department, Forest Conservation Act, 1980 and Wild life (Protection) Act, 1972 etc shall be obtained as applicable by project proponents from the competent authorities.	All applicable statutory clearances have been obtained from the competent authorities. (Eg. CFO, PESO etc)
22	These stipulations would be enforced among others under the provisions of water Act, 1974, the air act 1981, the environment act, 1986, The public liability Insurance Act, 1991 and EIA Notification 2006.	Noted & accepted.
23	Under the provisions of environment (protection) act,	Noted & accepted.

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Sl. No.	Conditions Stipulated in the EC	Compliance Status/ Remarks
	1986 legal action shall be initiated against the project proponent if it is found that construction of the project has been started without obtaining environment clearance.	

ANNEXURE-1

AMBIENT AIR QUALITY DATA

AMBIENT AIR QUALITY STATISTICS (April 2018 to September 2018)													
Sl.No	Month	Parameters											
		SO2	NO2	PM10	PM2.5	O3	Lead	CO	NH3	C6H6	BaP	Arsenic	Nickel
	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	mg/m3	µg/m3	µg/m3	µg/m3	ng/m3	ng/m3	ng/m3
	Emission standards as per NAAQ, 2009	80	80	100	60	100	1	4	400	5	1	6	20
1	Apr-18	7.1	17.5	49.3	27.5	5	0.1	1.5	4.5	1	0.1	1	1.4
2	May-18	7.8	18.2	51.2	29.6	4.5	0.1	1.7	4	0.7	0.1	1	1.6
3	Jun-18	7.1	17.6	48.9	28.5	5	0.1	1.5	3.5	1	0.1	1	1.4
4	Jul-18	7.4	18.2	51.6	29.1	5	0.1	1.3	3	1	0.1	1.0	1.6
5	Aug-18	6.5	16.7	47.2	27.5	5	0.1	1.1	2.4	1	0.1	1.0	1.2
6	Sep-18	6.1	15.6	49.6	28.5	5	0.1	1.3	2.8	1	0.1	1	1.4
Average, (µg/m3 or ng/m3)		7	17.3	49.6	28.45	4.92	0.1	1.4	3.36	0.95	0.1	1	1.43

ANNEXURE-2

STACK MONITORING DATA

STACK MONITORING DATA (500KVA DG SET-1)				
(April 2018 to September 2018)				
Sl.No	Month	Parameters		
		PM	SOX	NOX
	KSPCB standards	mg/Nm3	mg/m3	mg/m3
		150	Not specified	Not specified
1	Apr-18	26.34	8.72	15.91
2	May-18	24.68	8.34	14.76
3	Jun-18	25.16	8.62	14.42
4	Jul-18	27.56	9.17	16.24
5	Aug-18	25.14	8.75	15.32
6	Sep-18	27.62	9.14	16.35
Average, (kg/day)		0.000893	0.0030	0.0053

STACK MONITORING DATA (500KVA DG SET-2)				
(April 2018 to September 2018)				
Sl.No	Month	Parameters		
		PM	SOX	NOX
	KSPCB standards	mg/Nm3	mg/m3	mg/m3
		150	Not specified	Not specified
1	Apr-18	26.51	8.45	15.26
2	May-18	26.12	8.85	15.76
3	Jun-18	25.71	8.45	14.96
4	Jul-18	26.32	8.89	15.48
5	Aug-18	25.93	8.55	15.97
6	Sep-18	27.05	8.96	16.08
Average, (kg/day)		0.0009	0.0029	0.0054

ANNEXURE-2

STACK MONITORING DATA

STACK MONITORING DATA (1010 KVA DG SET-1) (April 2018 to September 2018)					
Sl.No	Month	Parameters			
		PM	SOX	NOX	NMHC
	mg/Nm3	mg/m3	mg/m3	mg/m3	
	KSPCB standards	150	Not specified	Not specified	100
1	Apr-18	26.34	8.72	15.91	11.5
2	May-18	24.68	8.34	14.76	12.4
3	Jun-18	25.16	8.62	14.42	12.1
4	Jul-18	27.56	9.17	16.24	12.5
5	Aug-18	25.14	8.75	15.32	13.1
6	Sep-18	27.62	9.14	16.35	13.7
Average, (kg/day)		0.000893	0.0030	0.0053	0.00016

STACK MONITORING DATA (1010 KVA DG SET-1) (April 2018 to September 2018)					
Sl.No	Month	Parameters			
		PM	SOX	NOX	NMHC
	mg/Nm3	mg/m3	mg/m3	mg/m3	
	KSPCB standards	150	Not specified	Not specified	100
1	Apr-18	26.51	8.45	15.26	10.7
2	May-18	26.12	8.85	15.76	10.9
3	Jun-18	25.71	8.45	14.96	11.4
4	Jul-18	26.32	8.89	15.48	11.2
5	Aug-18	25.93	8.55	15.97	11.9
6	Sep-18	27.05	8.96	16.08	12.1
Average, (kg/day)		0.0009	0.0029	0.0054	0.00122

ANNEXURE-2

STACK MONITORING DATA

STACK MONITORING DATA (Thermic Fluid Heater-1) (April 2018 to September 2018)				
Sl.No	Month	Parameters		
		PM	SOX	NOX
	KSPCB standards	mg/Nm3	mg/m3	mg/m3
		150	Not specified	Not specified
1	Apr-18	34.18	4.25	8.91
2	May-18	32.54	4.16	8.69
3	Jun-18	30.87	4.28	8.75
4	Jul-18	32.69	4.05	8.31
5	Aug-18	34.57	4.26	8.75
6	Sep-18	32.78	4.14	8.62
Average, (kg/day)		0.324	0.0008	0.00022

STACK MONITORING DATA (Thermic Fluid Heater- 2) (April 2018 to September 2018)				
Sl.No	Month	Parameters		
		PM	SOX	NOX
	KSPCB standards	mg/Nm3	mg/m3	mg/m3
		150	Not specified	Not specified
1	Apr-18	32.69	4.47	9.02
2	May-18	30.81	4.64	8.58
3	Jun-18	28.71	4.08	8.32
4	Jul-18	29.18	4.26	8.91
5	Aug-18	30.28	4.12	8.64
6	Sep-18	32.15	4.28	8.96
Average, (kg/day)		0.2842	0.040	0.08

ANNEXURE-3

AMBIENT NOISE MONITORING DATA

Sl.No	Month	Area	Noise levels in L_{eq} dB (A) (Day time)
1	April-2018	Back side of canteen	59.8
		Near Admin Main Gate	59.1
		Near R & D Corner	56.6
		Near Material Gate	58.1
2	May-2018	Back side of canteen	58.6
		Near Admin Main Gate	58.1
		Near R & D Corner	56.3
		Near Material Gate	57.5
3	June-2018	Back side of canteen	58.3
		Near Admin Main Gate	57.5
		Near R & D Corner	56.1
		Near Material Gate	56.9
4	July-2018	Back side of canteen	58.8
		Near Admin Main Gate	57.2

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		Near R & D Corner	55.6
		Near Material Gate	55.3
5	August-2018	Back side of canteen	57.6
		Near Admin Main Gate	56.3
		Near R & D Corner	55.1
		Near Material Gate	55.8
6	September-2018	Back side of canteen	56.9
		Near Admin Main Gate	55.8
		Near R & D Corner	54.5
		Near Material Gate	55.1