

Compliance of Environmental Clearance of Silvassa Manufacturing Division (for six month period ending 30th Sep'2017)

Ref: Ministry's Letter No. - J-11011/429/2010-IA-II (I) dated 08.06.2011

Sr No	EC Condition	Compliance Status
A. SPECIFIC CONDITIONS		
i	Environmental clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation vs. Union of India in Writ Petition (Civil) No. 460 of 2004, as may be applicable to this project.	The Goa Foundation vs. Union of India, Writ Petition (Civil) No. 460 of 2004 is still not disposed by the Hon'ble Supreme Court and the final order is yet to be delivered. We agree to comply with the final order as and when it is delivered. Hence Complied with
ii	Environmental clearance is subject to obtaining clearance under the Wildlife (Protection) Act, 1972 from the competent authority, as may be applicable to this project.	The condition is not applicable to this project as the project is not using any land within Wildlife Sanctuary, requiring approval under Wildlife (Protection) Act, 1972. Hence Complied with
iii	Building design shall be based on green building concept	There no specific Green building design code/concepts applicable to industrial plants. No residential/office building are constructed at the RIL, Silvassa site post this Environmental Clearance. Despite as progressive and environmentally conscious company we have taken steps to make the complex green and energy efficient Hence Complied with
iv	Adequate stack height shall be provided to natural gas based CCHPP (50 MW i.e. 8.3 MW x 6 nos.) and natural gas / (LSHS) fired HTM heaters (2x4 nos.) to control the air emissions within the limit stipulated by CPCB and DD & DNH Pollution Control Committee (DD & DNHPCC). Low NOx burner shall be provided in Captive Co-generation Power Plant to reduce the NOx emissions.	Natural gas / LSHS fired HTM heaters have been provided adequate stack height as per the CPCB stack height calculation formula ($H = 14(Q)^{0.3}$). The CCHPP has not been implemented. We agree to provide adequate stack height for CCHPP stacks when it is implemented. Captive co-generation power plant (CCHPP) is not yet established. Low NOx burners shall be provided, when it is implemented. Hence Complied with

v	<p>The gaseous emissions (SO₂, NO_x, CO and HC) and particulate matter from HTM and proposed CCHPP units shall conform to the norms prescribed by the CPCB / DD & DNHPCC from time to time.</p> <p>At no time, the emission levels shall go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Stack emissions shall be monitored regularly.</p>	<p>The CCHPP project has not been implemented. Stack emissions from the HTM heaters are being monitored regularly and conform to the prescribed norms. The summary of emissions for the period Oct'16 - March17 is given below.</p> <table border="1" data-bbox="805 373 1503 751"> <thead> <tr> <th>Parameters</th> <th>Limits prescribed by DD & DNHPCC</th> <th>Avg</th> <th>Min</th> <th>Max</th> </tr> </thead> <tbody> <tr> <td>PM (mg/Nm³)</td> <td>150</td> <td>45.375</td> <td>42</td> <td>49</td> </tr> <tr> <td>SO_x (mg/Nm³)</td> <td>40</td> <td>32.10</td> <td>28</td> <td>37</td> </tr> <tr> <td>NO_x (mg/Nm³)</td> <td>25</td> <td>20.12</td> <td>17</td> <td>22</td> </tr> <tr> <td>CO (%)</td> <td>--</td> <td>0.61</td> <td>0.55</td> <td>0.67</td> </tr> <tr> <td>HC (ppm)</td> <td>--</td> <td>11.08</td> <td>9</td> <td>13</td> </tr> </tbody> </table> <p>Pollution control systems are regularly monitored and the associated process plant is taken off line till the problem is rectified. Hence complied with</p>	Parameters	Limits prescribed by DD & DNHPCC	Avg	Min	Max	PM (mg/Nm ³)	150	45.375	42	49	SO _x (mg/Nm ³)	40	32.10	28	37	NO _x (mg/Nm ³)	25	20.12	17	22	CO (%)	--	0.61	0.55	0.67	HC (ppm)	--	11.08	9	13
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vi	The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16 th November, 2009 shall be followed.	<p>Ambient air quality monitoring is being carried out as per the NAAQS, 2009. Summary of results for Oct'16-March'17 is as below.</p> <table border="1" data-bbox="805 275 1521 1129"> <thead> <tr> <th>Parameters</th> <th>Limits prescribed in NAAQ std.</th> <th>Avg</th> <th>Min</th> <th>Max</th> </tr> </thead> <tbody> <tr> <td>PM₁₀ (µg/m³)</td> <td>100</td> <td>46.8</td> <td>44</td> <td>49</td> </tr> <tr> <td>PM_{2.5} (µg/m³)</td> <td>60</td> <td>25.05</td> <td>21</td> <td>29</td> </tr> <tr> <td>SO₂ (µg/m³)</td> <td>80</td> <td>25.72</td> <td>22</td> <td>29</td> </tr> <tr> <td>NO₂ (µg/m³)</td> <td>80</td> <td>19.94</td> <td>17</td> <td>23</td> </tr> <tr> <td>Ozone (O₃) (µg/m³)</td> <td>100</td> <td colspan="3">BDL</td> </tr> <tr> <td>Lead (Pb) (µg/m³)</td> <td>1.0</td> <td colspan="3">BDL</td> </tr> <tr> <td>Carbon Monoxide (CO), (mg/m³)</td> <td>2</td> <td colspan="3">BDL</td> </tr> <tr> <td>Ammonia (NH₃) (µg/m³)</td> <td>400</td> <td colspan="3">BDL</td> </tr> <tr> <td>Benzene (C₆H₆) (µg/m³)</td> <td>5</td> <td colspan="3">BDL</td> </tr> <tr> <td>Benzo-a-pyrene (ng/m³)</td> <td>1</td> <td colspan="3">BDL</td> </tr> <tr> <td>Arsenic (As) (ng/m³)</td> <td>6</td> <td colspan="3">BDL</td> </tr> <tr> <td>Nickel (Ni) (ng/m³)</td> <td>20</td> <td colspan="3">BDL</td> </tr> </tbody> </table> <p>Hence Complied with</p>	Parameters	Limits prescribed in NAAQ std.	Avg	Min	Max	PM ₁₀ (µg/m ³)	100	46.8	44	49	PM _{2.5} (µg/m ³)	60	25.05	21	29	SO ₂ (µg/m ³)	80	25.72	22	29	NO ₂ (µg/m ³)	80	19.94	17	23	Ozone (O ₃) (µg/m ³)	100	BDL			Lead (Pb) (µg/m ³)	1.0	BDL			Carbon Monoxide (CO), (mg/m ³)	2	BDL			Ammonia (NH ₃) (µg/m ³)	400	BDL			Benzene (C ₆ H ₆) (µg/m ³)	5	BDL			Benzo-a-pyrene (ng/m ³)	1	BDL			Arsenic (As) (ng/m ³)	6	BDL			Nickel (Ni) (ng/m ³)	20	BDL		
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vii	In plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Adequate dust suppression systems with water spray shall be provided for storage yard, junction houses. Raw material loading and unloading area shall be covered and also provided with water spraying system. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored and records maintained. The emissions shall conform to the limits stipulated by the DD & DNHPCC.	<p>Fugitive emissions in the plant are arrested at the generation stage itself by providing closed loop material handling systems.</p> <p><u>Raw material loading/unloading system is also carried out in a closed system</u> hence water spray system is not envisaged. Bag filters are provided.</p> <p>Fugitive emission monitoring in the work zone is carried out regularly and records are maintained.</p> <p>No fugitive emission standards have been prescribed by DD&DNHPCC.</p> <p>Hence complied with</p>																																																																	

viii	For further control of fugitive emissions, following steps shall be followed. 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. The acids shall be taken from storage tanks to reactors through closed pipeline and the Storage tanks shall be vented through trap receiver and condenser operated on chilled water. Cathodic protection shall be provided to the underground solvent storage tanks.	Closed handling system is provided for material transfer of chemical raw materials. Reflux condenser is provided over the reactors in the CP plant. Leak detection is carried out regularly at locations in the plant for critical equipment and records are maintained. Acid transfer from storage tanks to the reactor is done through closed pipelines. The acid tanks are provided with fume collection system and is recycled back into the containers. Cathodic protection is provided to prevent corrosion. Hence Complied with.										
ix	The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution.	Adequate Stack height as per CPCB norms for DG sets between 100-150 KVA is installed. Acoustic enclosures for DG set have been provided, as per standards. Hence Complied with										
x	The company shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on its 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 DD & DNHPCC. The levels of PM ₁₀ , SO ₂ , NO _x , CO, HC and VOCs in ambient air shall be monitored and displayed at a convenient location near the main gate of the company and at important public places.	The six monthly compliance reports is being submitted to the Regional Office of MoEF, the respective Zonal Office of CPCB and DD & DNHPCC. Uploading the information on company website is done. The ambient air quality monitoring results are displayed near the main gate of the Company. Hence we are complying with the requirement										
xi	Total fresh water requirement from canal water shall not exceed 9,100 m ³ /day after expansion and prior permission shall be obtained from concerned authority/agency. A copy of permission shall be submitted to the Ministry's Regional Office at Bhopal. No ground water shall be used.	Total fresh water requirement for the facility is not exceeding 9100 m ³ /day. Prior permission is obtained from the concerned authority and the same has been submitted to MoEFCC, Bhopal Regional Office. Average water drawl in the period Oct'16-March'17: <table border="1" data-bbox="805 1335 1503 1419"> <thead> <tr> <th>Water drawl</th> <th>Limit</th> <th>Average</th> <th>Min</th> <th>Max</th> </tr> </thead> <tbody> <tr> <td>m³/day</td> <td>9100</td> <td>1090</td> <td>1956</td> <td>2476</td> </tr> </tbody> </table> No ground water is drawn.	Water drawl	Limit	Average	Min	Max	m ³ /day	9100	1090	1956	2476
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xii	<p>Industrial and domestic effluent generation shall not exceed 3,390 m³/day and 310 m³/day respectively. As proposed, effluent from esterification reaction shall be treated in a stripper and off gas shall be burnt in HTM heater as fuel or same shall be diverted to an up flow anaerobic sludge blanket (UASB) system for decomposition and the generated biogas shall be burnt in HTM heater as fuel. The treated stream from esterification reaction/process and effluent from utilities & toilet blocks shall be treated in an effluent treatment plant (ETP) and treated wastewater shall be recycled/ reused for cooling tower make up. The DM plant regeneration and cooling tower blow down shall be treated through reverse osmosis plant.</p>	<p>The wastewater generated presently is not exceeding 3390 m³/day. The average effluent generation in the period Oct'16-March'17 is presented below:</p> <table border="1" data-bbox="805 275 1495 390"> <thead> <tr> <th>Effluent generation</th> <th>Limit</th> <th>Average</th> <th>Min</th> <th>Max</th> </tr> </thead> <tbody> <tr> <td>m³/day</td> <td>3390</td> <td>1258</td> <td>861</td> <td>1391</td> </tr> </tbody> </table> <p>The effluent generated from the esterification process is treated in the stripper and the off gas is burnt in the HTM heaters as fuel. Resultant Wastewater is treated in the ETP and recycled for Colling tower make up. The DM plant regeneration/ rejects and cooling tower blow down are treated in Reverse Osmosis Plant Hence Complied with.</p>	Effluent generation	Limit	Average	Min	Max	m ³ /day	3390	1258	861	1391																									
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xiii	<p>No effluent shall be discharged outside the factory premises and 'zero' discharge concept shall be adopted.</p>	<p>No effluent is discharged outside the premises. The treated effluent is entirely recycled/ reused for cooling tower make-up. <u>The factory is observing 'zero' liquid discharge concept.</u> Hence Complied with.</p>																																			
xiv	<p>Company shall construct guard pond for collection of treated effluent and shall carry out the water quality test by collecting the treated effluent from the guard pond before application. The testing reports shall be submitted to the CPCB and Ministry's Regional Office at Bhopal</p>	<p>The company has provided a guard pond for treated effluent carrying out quality testing to check its conformance with the DD & DNHPCC standards prior to its usage. Hence Complied with.</p> <p>The summary of the treated effluent quality for the period Oct'16-March'17 is given below:</p> <table border="1" data-bbox="805 1142 1487 1556"> <thead> <tr> <th>Parameters</th> <th>DD & DNHPCC Limits</th> <th>Avg</th> <th>Min</th> <th>Max</th> </tr> </thead> <tbody> <tr> <td>pH</td> <td>5.5-9.0</td> <td>7.19</td> <td>6.51</td> <td>7.72</td> </tr> <tr> <td>Total Suspended Solids (mg/L)</td> <td>100</td> <td>40.5</td> <td>25</td> <td>52</td> </tr> <tr> <td>Total Dissolved Solids (mg/L)</td> <td>2100</td> <td>535.8</td> <td>419</td> <td>698</td> </tr> <tr> <td>COD (mg/L)</td> <td>250</td> <td>60.5</td> <td>40</td> <td>84</td> </tr> <tr> <td>BOD (mg/L)</td> <td>100</td> <td>16</td> <td>07</td> <td>32</td> </tr> <tr> <td>O&G (mg/L)</td> <td>10</td> <td>0.78</td> <td>0.6</td> <td>0.8</td> </tr> </tbody> </table>	Parameters	DD & DNHPCC Limits	Avg	Min	Max	pH	5.5-9.0	7.19	6.51	7.72	Total Suspended Solids (mg/L)	100	40.5	25	52	Total Dissolved Solids (mg/L)	2100	535.8	419	698	COD (mg/L)	250	60.5	40	84	BOD (mg/L)	100	16	07	32	O&G (mg/L)	10	0.78	0.6	0.8
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xv	<p>Sludge composition shall be tested for hazardous waste characteristics and disposed it accordingly.</p>	<p>Sludge composition testing is carried out by the TSDF (GEPIL) for its hazardous characteristics and disposed accordingly. Hence Complied with.</p>																																			

xvi	During transfer of materials, spillages shall be avoided and garland drains shall be constructed to avoid mixing of accidental spillages with domestic water and storm water drains.	Transfer of materials is done through automated systems to avoid any spillage and ensure accidental spillages don't occur there by prevent the material from mixing with domestic water and storm water drains. Hence Complied with
xvii	The Company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2008 as amended time to time for management of hazardous wastes and prior permission from DD & DNHPCC shall be obtained for disposal of solid/hazardous waste in the TSDF.	The company has obtained authorization for collection, storage and disposal of hazardous waste to TSDF under the Hazardous Waste, Rules, 2008 on 10.11.2015 vide Authorization No. PCC/DDD/ G.4954 /HW/10-11/1303 dated 10.11.2015. Hence Complied with
xviii	The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of hazardous chemicals shall be as per the Motor Vehicle Act (MVA), 1989.	RIL, Silvassa facility has implemented the requirements under MSIHC Rules, 1989 includes preparation of Safety audit report (submitted to DISH regularly), Preparation of Emergency Response Plan, Regular mock-drills, Emergency alert system like sirens, announcement etc. Also transportation of hazardous chemicals is followed as prescribed in MVA. Hence Complied with.
xix	The company shall undertake the following waste minimization measures:- Metering and control of quantities of active ingredients to minimize waste. Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. Use of automated filling to minimize spillage. Use of Close Feed system into batch reactors. Venting equipment through vapour recovery system, Use of high pressure hoses for equipment clearing to reduce wastewater generation.	All stipulations are complied with in operations: Metering and monitoring the active ingredients used in all process plants. It is controlled from the plant control room. Polymer waste & MEG is recycled to process on continuous basis with on line purification Automated filling is provided to minimize spillage. Processes are designed with "Closed feed" system in reactors. Venting equipment is provided with vapor recovery system and the collected vapors are recycled back to the tanks High pressure hoses are provided for equipment cleaning to reduce water consumption in cleaning processes. Hence Complied with.
xx	The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the OISD 117 norms.	As the RIL, Silvassa facility is a polyester complex, the OISD 117 is not applicable. company has made all required arrangements for protection against the fire hazards during manufacturing process and material handling for the operational plants, as per the applicable rules & regulations, which include Appropriate earthing facilities, lightning arresters, safety valves, pressure sensors, SOP for fire and safety management etc. Hence Complied with

xxi	All the mitigations measures suggested in the risk assessment analysis shall be implemented.	All detailed Risk mitigation recommendations of the facilities at site were included in the design of the plants itself. Few of the measures implemented include adequately strong civil foundation of storage tanks, FLP type and mechanical seal type pumps, Double earthing of all electrical motors, adequate fire-fighting and fire protection systems are provided etc. Hence Complied with.
xxii	Occupation health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.	Regular health checkup for surveillance of occupational diseases of all the employees is carried out and records maintained as per the Factories Act. A well-equipped Occupational Health Centre exists at the site. Hence Complied with.
xxiii	The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water. During rainy season, water reservoir shall be used for water collection and use the same water for the process activities of the project to conserve fresh water.	Roof top rain water harvesting is implemented in the chiller house and boiler house, collected water is used as cooling tower make-up. Rainwater from the storm channel and other open areas is also collected in the open ponds to be used as cooling tower make up conserving fresh water. Hence Complied with.
xxiv	Details of existing land use of the plot to be purchased for the green belt development shall be submitted to the Ministry and its Regional Office within 3 months.	Additional land adjacent to the existing plant has been purchased for green belt development. These plots were of mixed land use and are suitable for green belt development. Details are submitted to MoEFCC, RO. Hence we are complying with the requirement
xxv	Green belt shall be developed in 33% of the total land 4,96,587 m ² in consultation with local DFO as per CPCB guidelines. This 33% green belt shall not include compensatory afforestation. Thick green belt around factory premises shall be ensured.	The total green belt at site including the purchased plot is 1,71,733 m ² . About 2500 trees were planted in the 2016-17. Green belt developed include plant periphery. Hence Complied With
xxvi	Dedicated parking facility for loading and unloading of material shall be provided in the factory premises. Unit shall develop and implement good traffic management system for their incoming and outgoing vehicles to avoid congestion on the public road.	Dedicated adequate infrastructure for parking, material loading and unloading has been provided. Traffic management system has been implemented for the incoming and outgoing vehicles like separate entry/exit for material transport, security personnel for diverting and guiding proper route, signaling systems and prevent parking along-side the internal roads. Hence Complied with

xxvii	Provision shall be made for the housing for the construction labour 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 be removed after the completion of the project. All the construction wastes shall be managed so that there is no impact on the surrounding environment.	Temporary Labour camps with the necessary infrastructure was provided during the construction phase. Now, it is cleared and the site has been cleaned up. Due care was taken that the clearing up the site did not impact the surrounding environment. Hence Complied with
B. GENERAL CONDITIONS		
i	The project authorities shall strictly adhere to the stipulations made by the DD & DNHPCC,	The stipulations made by the DD & DNHPCC are strictly adhered to.
ii	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	No further expansion is planned and carried out without MoEFCC approval. The same shall be undertaken only after obtaining due approval from the Ministry.
iii	The locations of ambient air quality monitoring stations shall be decided in consultation with DD & DNHPCC and it shall be ensured that at least one station is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.	Location of the AAQ monitoring stations has been decided in consultation with PCC. Out of the 3 monitoring stations provided, one station is placed in upwind direction, one in down wind direction and the third one in cross wind direction based on the anticipated maximum GLC locations. Hence complied with

iv	<p>The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environment (Protection) Act, 1986 Rules, 1989 viz 75dBA (day time) and 70 dB (A) (night time).</p>	<p>Adequate noise control measures have been implemented such as acoustic enclosure for DG Sets; silencers for compressors and provision of closed buildings etc. Work place noise monitoring is carried out regularly and the summary of the results for Oct'16 –March'17 is presented below:</p> <table border="1" data-bbox="805 369 1487 810"> <thead> <tr> <th>S.No.</th> <th>Plant area</th> <th>Limit under Factories Act- dB(A)</th> <th>Avg. Noise - dB(A)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Utility area</td> <td>90</td> <td>87.5</td> </tr> <tr> <td>2</td> <td>Power generation unit</td> <td>90</td> <td>77.3</td> </tr> <tr> <td>3</td> <td>Cooling tower</td> <td>90</td> <td>85.3</td> </tr> <tr> <td>4</td> <td>Compressor house</td> <td>90</td> <td>93.7</td> </tr> <tr> <td>5</td> <td>Plant 1, near Aldira m/c</td> <td>90</td> <td>82.5</td> </tr> </tbody> </table> <p>Summary of the ambient noise levels monitored at the periphery of the site for the period Oct'16 –March'17 is given below:</p> <table border="1" data-bbox="805 947 1487 1094"> <thead> <tr> <th>Day time Noise Level</th> <th>Limit under EP Rules</th> <th>Avg</th> <th>Min</th> <th>Max</th> </tr> </thead> <tbody> <tr> <td>Unit – dB(A)</td> <td>75</td> <td>64.28</td> <td>56.2</td> <td>70.40</td> </tr> </tbody> </table> <p>Hence Complied with</p>	S.No.	Plant area	Limit under Factories Act- dB(A)	Avg. Noise - dB(A)	1	Utility area	90	87.5	2	Power generation unit	90	77.3	3	Cooling tower	90	85.3	4	Compressor house	90	93.7	5	Plant 1, near Aldira m/c	90	82.5	Day time Noise Level	Limit under EP Rules	Avg	Min	Max	Unit – dB(A)	75	64.28	56.2	70.40
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v	<p>Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis.</p>	<p>Regular training is imparted to the employees on chemical handling operations. Pre-employment and regular health checkups including for all employees is carried out and records maintained as per Factories Act. Audiometry test for employees working in high noise areas is also included in the regular health checkup.</p> <p>Hence Complied with</p>																																		
vi	<p>Usage of Personnel Protection Equipment (PPEs) by all employees/workers shall be ensured.</p>	<p>Use of PPE's for all employees / workers during work is mandatory and monitor their usage is done. The following PPE's are provided to the employees/workers:</p> <ol style="list-style-type: none"> Safety Helmet Safety Shoes Hand gloves (cotton, leather, rubber) Safety Goggles Dust Mask Full body harness Face shield with helmet <p>Hence Complied with.</p>																																		

vii	The company shall also comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, risk mitigation measures and public hearing relating to the project shall be implemented.	The recommendations made in the EIA/EMP were included in the design and implemented for all plants which have been established. These include adequate stack height, ETP , zero liquid discharge, acoustic enclosures, closed loop material handling etc For upcoming plants these will be included as a part of design Hence Complied with. .
viii	The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CSR activities shall be undertaken by involving local villages and administration.	CSR activities for the company is carried out by Reliance Foundation as well as by site level teams in consultation with local administration and local villages. The major areas of CSR activity include: <ul style="list-style-type: none"> • Health awareness programs • Blood donation camps • Organizing skill development courses for local villagers Hence Complied with
ix	The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.	The company is undertaking eco-developmental and community welfare measures as a part of CSR activities like Tree plantation at nearby villages, Environmental awareness generation in local community, Health camps in villages and schools etc. Hence Complied with
x	A separate Environmental Management Cell equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.	A separate Environmental Management Cell is established at the plant wherein a senior Environment Manager who reports to the site HSEF head. He is responsible for carrying out the environmental monitoring and other environment improvement activities. Hence Complied with
xi	Company shall lay down Corporate Environment Policy as per the Ministry's O.M. No. J-11013/41/2006-IA.II (I) dated 26 th April, 2011. A copy of such Corporate Environment Policy shall be posted on the website of the company and a copy shall also be submitted to the Ministry and respective regional office of MoEF.	RIL has a Corporate Environment Policy, which is available on the company's website. A copy of the policy has already been submitted to MoEFCC, RO vide our six monthly compliance letter no. RIL/Proj-2010/MoEF/043 dated 01.12.2011. Hence Complied with
xii	As proposed, the company shall earmark Rs. 70.00 Crores and Rs. 71.00 Lakhs toward capital cost and recurring cost/annum to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management / pollution control measures shall not be diverted for any other purpose.	The company has spent around Rs 70 Crores in establishing the pollution control systems at site and matching operating expense for Environment Management system. Funds allocated for implementation of environmental management / pollution control measures are not be diverted for any other purposes. Hence Complied with

xiii	A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parisad / Municipal Corporation, Urban Local Body and the local NGO, if any, from who suggestions/representations, if any, were received while processing the proposal.	Copy of the EC letter has been provided to the surrounding Panchayats and Municipal Corporation. Hence Complied with
xiv	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the DD & DNHPCC. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.	The six monthly compliance report is being submitted to the Regional Office of MoEF, the Zonal Office of CPCB and DD & DNHPCC. The status of compliance is being uploaded on the Company's website Hence Complied with.
xv	The environmental statement for each financial year ending 31 st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board / Committee 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 environmental clearance conditions and shall also be sent to the respective Regional Office of the Ministry.	The last environmental statement (Form V) is submitted to the Regional Office of MoEF and DD & DNHPCC. The same is being uploaded on company's website. Hence Complied with
xvi	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry at http://envfor.nic.in . This shall be advertised within seven days form the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.	General public has been informed about the Environment clearance through advertisement in local newspapers. Photocopies of the same have already been submitted vide our half yearly submission letter no. RIL/Proj-2010/MoEF/043 dated 01.12.2011.
xvii	The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.	The project implemented so far is through internal financial accrual and is already achieved. It was informed during MOEFCC, RO interactions. The final financial closure is yet to happen.
8.0	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Noted for agreement.

9.0	The Ministry reserves the right to stipulate additional conditions, if found necessary. The company in a time bound manner will implement these conditions.	Noted for agreement
10.0	The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention and Control of Pollution) Act, 1974, Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) act, 1986, Hazardous Wastes (Management and Handling) Rules, 1989/2003/2008 and the Public Liability Insurance Act, 1991 along with their amendments and rules.	Noted for agreement

Reliance

Industries Limited

To,
Member Secretary,
Pollution Control Committee
UT of Daman and Diu & Dadra Nagar Haveli,
Silvassa-396 230

September 15, 2017

Subject: Submission of Form No.-V (Environment Statement) for year 2016-17.

Ref ID No: PCC/DDD/G-1291

Respected Sir,

We are enclosing the Form No.-V (Environment Statement) annual return for the year ending 31st March 2017 (2016-2017) For Partially Oriented Yarn Plant(POY), Fully Drawn Yarn Plant (FDY) & Polyester Texturized Yarn Plant (PTY).

This is for your record please.

Thanking You,

Yours Faithfully,

For, Reliance Industries Limited,



Authorized Signatory

Encl: -a/a

J. P. Patil
15/09/2017
प्रदूषण नियंत्रण समिति
POLLUTION CONTROL COMMITTEE
क्षेत्रीय कार्यालय / Regional Office
समन, दिव. डामन, दियु व ददरा नगर हवेली
Daman, Diu, Dadra Nagar Haveli
सिलवसा / SILVASSA

[FORM – VI]

Environmental Statement for the year ending the 31st March 2017

PART-A

(i)	Name and address of the owner / occupier of the industry operation or process	Reliance Industries Ltd 342, Kharadpada, Po Naroli-396235 U.T. of Dadra & Nagar Haveli
(ii)	Production Capacity- Unit	Polyester Texturizing Yarn-1,60,000 MT/ Year Partially Oriented Yarn-1500 TPD Fully Drawn Yarn-500 TPD
(iii)	Industry Category Primary (STC code), Secondary (STC Code)	
(iv)	Year of Establishment	PTY Plant-1995 POY & FDY Plant-2014
(iii)	Date of last environmental statement submitted	27/09/2016

PART-B

(i) Water and Raw Material Consumption

Water Consumption M³ / day

Process: 683.16 m³/day

Cooling: 1330.52 M³/day

Domestic: 207.55 M³/day

Sr. No.	Name of the Product	Process water consumption in Kl per ton of product output	
		During the previous financial year April 15 - March 16	During the current financial year April 2016– March 2017
1.	Partially Oriented Yarn, Fully Drawn Yarn	0.73 KL	0.67 KL
2	Polyester Textured Yarn	--NA--	--NA--

(ii) Raw Material Consumption

Name of the raw materials	Name of the products	Consumption of raw material per unit of output	
		During the previous financial year April.2015' – March 2016'	During the current financial year in April' 2016 – March' 2017
Mono Ethylene Glycol (MEG)	Partially Oriented Yarn, Fully Drawn Yarn	124381 MT	121662 MT
Pure Terapthalic Acid (PTA)		319970 MT	314444 MT
POY	Polyester Textured Yarn & Polyester Twisted Yarn	293486 MT	294374 MT
Anti-Static Oil		6456 MT	8073 MT

PART-C

Pollution discharged to environment / unit of output
(Parameter as specified in the consent issued)

(1) Pollutants		Quantity of pollutants discharged (mass/ day)	Concentration of pollutants in discharges (mass/volume)	Percentage of variation from prescribed standards with reasons
(a) Water				No variation from Prescribed Standards
	pH	--	6.98	
	Suspended Solids	0.40 kg/d	37.58 mg/L	
	BOD, 3 days, 27 °C	0.02 kg/d	16.16 mg/L	
	COD	0.05 kg/d	55.25 mg/L	
	Oil & Grease	0.0006 kg/d	0.56 mg/L	
	Total Residual Chlorine	BDL	BDL	
	Total Chromium as Cr	BDL	BDL	
	Sulphide as S	BDL	BDL	
	Phenolic Compound	BDL	BDL	
(b) Air	Utility's Stack Analysis			No variation from Prescribed Standards
	PM	--	44.95 mg/Nm ³	
	Sox	--	31.83 mg/Nm ³	
	NOx	--	18.25	

PART-D
HAZARDOUS WASTES

(As specified under Hazardous Wastes / Management and Handling Rules, 1989)

Sr. No.	Hazardous waste	Total Quantity in Ton	
		During previous financial year April'2015 – March' 2016	During current financial year April'2016 – March 2017'
1.	From Process	Used Oil-28.590 MT	Used Oil-39.84 MT
		-Nil-	Oily Cotton Waste-20.10 MT
		-Nil-	Oily Saw Dust-3.03 MT
2.	From Pollution Control facilities	-Nil-	ETP Sludge-6.815 MT

PART-E

SOLID WASTES

Sr. No.	Solid Waste Generation	Total Quantity in Ton	
		During the previous financial year April'2015 – March' 2016	During the current financial year April 2016 – March 2017
(a)	From Process	7242.68 MT	6678.37 MT
(b)	From Pollution control facility	NA	--NA--
(c)	(1) Quantity recycled or reutilized Within the unit		
	(2) Sold	--7116.65 MT--	5972.45 MT
	(3) Disposed	--NA--	--NA--

PART-F

Please specify the characterizations (in terms of composition of quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories.

Hazardous Waste (Used Oil) is sold to CPCB approved registered recycler.

Solid Wastes (Non-Hazardous):

- 1) Mixed Polyester: It is sold to the parties in form of Yarn waste and it is used for making carpets, soft toys, pillow & mattresses etc.
- 2) Paper Tubes: It is sold to the parties, and it is used as raw material for paper mills.
- 3) Corrugated Boxes: it is sold to different industries which is re-used for packing goods & materials

PART-G

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production.

We undertake internal recycling of paper tubes so as to minimize the consumption of fresh paper tubes and thereby save natural resources

Our raw material comes in reusable plastic pallets to minimize consumption of corrugated boxes.

We undertake internal recycling of corrugated boxes for making of center plates used in fresh PTY boxes which so as to minimize the consumption of fresh center plates and thereby less waste of corrugated boxes and cutting left over waste is sent as a corrugated wastes

PART-H

Additional measures / investment proposal for environmental protection including abatement of pollution, prevention of pollution

Nil

PART-I

(The Environment (Protection) Rules, 1986)

Any other particulars for improving the quality of environment.

We have planted 8000 trees, 15100 shrubs & 1000 sq.-meter lawn at our premises.