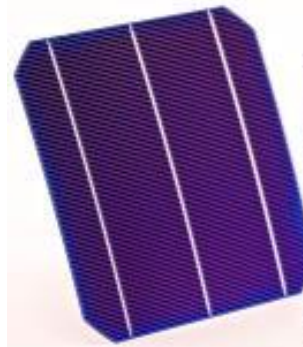


# SIX MONTHLY COMPLIANCE REPORT OF ENVIRONMENT CLEARANCE (EC)



## *Submitted to:*

**WESTERN REGIONAL OFFICE  
MINISTRY OF ENVIRONMENT, FORESTS &  
CLIMATE CHANGE,**

**CENTRAL POLLUTION CONTROL BOARD, NEW  
DELHI &**

**GUJARAT POLLUTION CONTROL BOARD,  
GANDHINAGAR**

## *Submitted by:*

**ENVIRONMENT MANAGEMENT DEPARTMENT**

**Mundra Solar Limited**

ADANI CORPORATE HOUSE, SHANTIGRAM,  
SG HIGHWAY AHMEDABAD – 382 421

## *For*

**31,000 MTPA  
Polysilicon  
Manufacturing Project**

## *At*

Notified APSEZ, Mundra  
Taluka, District Kutch,  
Gujarat

## **CONTENTS**

<b>Si. No.</b>	<b>Title</b>	<b>Annexure</b>
1.	<b>Compliance Status report on Environmental Clearance (EC).</b>	
2.	Environmental Monitoring Reports: (April'2020 – September'2020) <ul style="list-style-type: none"><li>• Ambient Air Quality Monitoring</li><li>• Soil Monitoring</li><li>• Noise Level Monitoring</li></ul>	I

**Compliance status on Environmental Clearance**  
**("Poly Silicon" manufacturing plant within Notified APSEZ, Mundra, Kutch)**  
 EC Letter No. SEIAA/GUJ/EC/3(a)/1277/2019 Dated- 07.09.2019

Sl. NO.	CONDITIONS	COMPLIANCE STATUS
<b>A.</b>	<b>CONDITIONS:</b>	
<b>A 1.</b>	<b>SPECIFIC CONDITIONS</b>	
1.	All efforts shall be made to optimize water consumption by exploring Best Available Technology (BAT). The unit shall continuously, strive to reduce, recycle and reuse the treated effluent.	Noted. Currently the project is on hold. MSL will make necessary efforts to optimize water consumption.
2.	Unit shall have to adhere to the prevailing area specific policies of GPCB with respect to the discharge of pollutants, and shall carry out the project development in accordance & consistence with the same,	Noted. Compliance assured once project takes off.
3.	Unit shall explore the possibilities for environment friendly methods for disposal of incinerable & land fillable wastes before sending to CHWIF/TSDf sites.	Noted. MSL will make efforts to explore the possibilities for environment friendly methods for disposal of waste.
4.	Flame proof electric fitting shall be provided within premises.	Agreed. Flame proof electric fitting will be considered during designing.
5.	Safety measures for Hazardous chemical handling as per PESO standards shall be provided.	Agreed. MSL will take safety measures for Hazardous chemical handling as per PESO standards once project takes off.
6.	All measures shall be taken to prevent soil and ground water contamination.	Agreed. Compliance assured once project takes off.
7.	The project proponent must strictly adhere to the stipulations made by the Gujarat Pollution Control Board, State Government and/or any other statutory authority	Agreed. MSL will adhere to the stipulations made by the Gujarat Pollution Control Board, State Government and any other Statutory Authority once project takes off.
8.	The National Ambient Air Quality Emission Standards issued by the Ministry vide G. S. R. No. 826 (E) dated 16 <sup>th</sup> November, 2009 shall be complied with.	Noted. Will be complied once project takes off.
9.	National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G. S. R. 608 (E) dated 21.07.2010 and amended from time to time shall be followed,	Noted. Will be complied once project takes off.
<b>A 2.</b>	<b>WATER:</b>	
10.	Total Water requirement for the project shall not exceed 20,048 KLD, Unit shall reuse 48 KLD hence fresh water requirement 20,000 KLD and it shall be	Will be complied once project takes off.

	met through APSEZ water supply only. Prior permission from the concerned authority shall be obtained for withdrawal of water.	Permission for fresh water requirement has already been taken from APSEZ. Please refer <b>Annexure II</b>
11.	The industrial effluent generation from the project shall not exceed 13,000 KLD.	Will be complied once project takes off.
12.	No ground water shall be tapped for the project requirements.	Agreed. Ground water will not be extracted.
13.	Entire effluent generated 12,300 KLD {2,400 KLD from Cooling water blow down (considering 100 KLD as evaporation loss); 5,600 KLD of treated effluent from ETP (considering 500 KLD as evaporation loss) & 4,300 from filtration (considering 200 KLD evaporation loss)} shall be disposed in guard basin of MSTPL and shall be finally discharged into Sea through outfall channel of APSEZ only after conforming discharge norms prescribed by GPCB/ CPCB/ MoEF & CC norms.	Agreed. Compliance assured once project takes off.
14.	Primary Effluent Treatment Plant (ETP) of capacity 7,000 KLD shall be proposed for treating 6,100 KLD wastewater generated from Etching and for Scrubbing.	Agreed, Compliance assured once project takes off.
15.	4,500 KLD effluent generated from Cleaning & Slim Rod Cutting shall be Filtered and disposed into Guard Basin of MSTPL and finally discharged into Sea through outfall channel of APSEZ.	Agreed. Will be complied once project takes off.
16.	2,400 KLD effluent generated from cooling tower blow down shall be treated, (Neutralized in Neutralization Pit) and disposed into Guard Basin of MSTPL and finally discharged into Sea through outfall channel of APSEZ.	Agreed. Will be complied once project takes off.
17.	Overall water loses in the Poly-silicon Manufacturing Plant shall be 1,200 KLD i.e. (500 KLD evaporation loss in ETP, 150 KLD from etching and scrubbing, 250 loss from cleaning and cutting, 200 KLD. loss from Filtration, 100 KLD loss from Neutralization Pit)	Noted.
18.	Domestic wastewater generation shall not exceed 48 KL/Day and it shall be treated in proposed STP (Primary, Secondary & Tertiary) and treated sewage shall be reused for Greenbelt development; gardening & Plantation within premises.	Agreed. Treated domestic water will be reused in gardening and plantation once project takes off.
19.	Unit shall provide adequate effluent treatment plant (ETP) sewage treatment plant (STP), Neutralization Pit & Filtration System for treatment of industrial effluent and it shall be operated regularly and efficiently so as to achieve the GPCB/ CPCB/ MoEF & CC norms.	Noted. MSL has proposed adequate capacity of ETP & STP for treating effluent and domestic Waste water respectively.

20.	Unit shall provide Continuous Online monitoring System for waste water discharge and an arrangement shall also be done for reflecting the online monitoring results on the company's server, which can be assessable by the GPCB on real time basis.	Noted. Compliance assured once project takes off.																			
21.	The unit shall provide metering facility at the inlet and outlet of the ETP, STP, Neutralization Pit & Filtration System and maintain records for the same	Noted. Will be complied once project takes off.																			
22.	Proper logbooks of ETP Operation, STP operation, Neutralization pit & Filtration System operations, chemical consumption in treatment facilities, quantities and qualities of effluent discharge to APSEZ outfall channel, reuse for Greenbelt development, gardening & Plantation, power consumption etc. shall be maintained and shall be furnished to the GPCB from time to time.	Agreed. Will be complied once project take off.																			
A. 3.	AIR:																				
23.	Unit shall not exceed fuel consumption for stand-by DG set as mentioned below: <table><tr><th>Sr. No.</th><th>Source of emission with capacity</th><th>Stack Height in meter</th><th>Type of fuel</th><th>Quantity of Fuel MT/Day</th><th>Type of Emission</th><th>APCM</th></tr><tr><td>1.</td><td>D. G. Set (125 KVA)</td><td>30.00</td><td>HSD</td><td>25 L/hr.</td><td>PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub>, NOx</td><td>Adequate Stack Height, Insulation, Filter and Acoustic Enclosure</td></tr></table>		Sr. No.	Source of emission with capacity	Stack Height in meter	Type of fuel	Quantity of Fuel MT/Day	Type of Emission	APCM	1.	D. G. Set (125 KVA)	30.00	HSD	25 L/hr.	PM <sub>2.5</sub> , PM <sub>10</sub> , SO <sub>2</sub> , NOx	Adequate Stack Height, Insulation, Filter and Acoustic Enclosure					
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1.	D. G. Set (125 KVA)	30.00	HSD	25 L/hr.	PM <sub>2.5</sub> , PM <sub>10</sub> , SO <sub>2</sub> , NOx	Adequate Stack Height, Insulation, Filter and Acoustic Enclosure															
24.	Unit shall provide adequate APCM with flue gas generation sources as mentioned above:	MSL has considered the proposed APCM and will be implemented once project takes off.																			
25.	Unit shall provide adequate APCM with process gas generation sources as mentioned below: <table><tr><th>Sr. No.</th><th>Specific Source of Emission</th><th>Stack height in meter</th><th>Type of emission</th><th>APCM</th></tr><tr><td>1.</td><td>Hydro-chlorination TCS Production</td><td>30.0</td><td rowspan="4">H2, HCL, CL2, NOx</td><td rowspan="4">Venturi Wet-Scrubber System</td></tr><tr><td>2.</td><td>TCS Purification</td><td>30.0</td></tr><tr><td>3.</td><td>Chlorosilane Waste Recovery</td><td>30.0</td></tr><tr><td>4.</td><td>CVD Reactor Off-Gas recovery</td><td>30.0</td></tr></table>	Sr. No.	Specific Source of Emission	Stack height in meter	Type of emission	APCM	1.	Hydro-chlorination TCS Production	30.0	H2, HCL, CL2, NOx	Venturi Wet-Scrubber System	2.	TCS Purification	30.0	3.	Chlorosilane Waste Recovery	30.0	4.	CVD Reactor Off-Gas recovery	30.0	MSL has considered the proposed APCM and will be implemented once project takes off.
Sr. No.	Specific Source of Emission	Stack height in meter	Type of emission	APCM																	
1.	Hydro-chlorination TCS Production	30.0	H2, HCL, CL2, NOx	Venturi Wet-Scrubber System																	
2.	TCS Purification	30.0																			
3.	Chlorosilane Waste Recovery	30.0																			
4.	CVD Reactor Off-Gas recovery	30.0																			
26.	Unit shall provide Continuous Emission Monitoring System [CEMS] as per the CPCB guidelines	Will be complied once project takes off. MSL has proposed to install Continuous Emission Monitoring System [CEMS] as per the CPCB guidelines.																			
27.	Unit shall provide adequate flaring system, If required	Noted.																			
28.	The fugitive emission in the work zone environment shall be monitored. The emission shall conform to the standards prescribed by the concerned authorities from time to time (e.g. Directors of	Agreed. MSL will take appropriate measure to control fugitive emissions.																			

	Industrial Safety & Health). Following indicative guidelines shall also be followed to reduce the fugitive emission. ➤ Internal roads shall be either concreted or asphalted or paved properly to reduce the fugitive emission during vehicular movement. ➤ Air borne dust shall be controlled with water sprinklers at suitable locations in the plant. ➤ A green belt shall be developed all around the plant boundary and also along the roads to mitigate fugitive & transport dust emission	
29.	Regular monitoring of Volatile Organic Compounds (VOCs) shall be carried out in the work zone area and ambient air.	Compliance assured once project takes off.
30.	For control of fugitive emission, VOCs, following steps shall be followed: a. Closed handling and charging system shall be provided for chemicals b. Reflux condenser shall be provided over Reactors / Vessels. c. Pumps shall be provided with mechanical seals to prevent leakages.	Noted. MSL has proposed closed handling and charging system for chemicals & reactors.
31.	Air borne dust at all transfers operations/ points shall be controlled either by spraying water or providing enclosures.	Noted. MSL will make efforts to control air borne dust by taking appropriate measures once project get started.
32.	Regular monitoring of ground level concentration of PM <sub>2.5</sub> , PM <sub>10</sub> , SO <sub>2</sub> , NO <sub>x</sub> , HCl, Cl <sub>2</sub> , H <sub>2</sub> & VOC shall be carried out in the impact zone and its records shall be maintained. Ambient air quality levels shall not exceed the standards stipulated by the GPCB. If at any stage these levels are found to exceed the prescribed limits, necessary additional control measures shall be taken immediately. The location of the stations and frequency of monitoring shall be decided in consultation with the GPCB	The proposed project is under the Electronic Manufacturing Cluster (EMC) premises within APSEZ a Mundra, Kutch. Regular monitoring of ground level concentration of PM <sub>2.5</sub> , PM <sub>10</sub> , SO <sub>2</sub> , NO <sub>x</sub> , is being carried out in the study area and its reports are maintained. Please refer <b>Annexure I</b> .

<b>A. 4.</b>	<b>SOLID / HAZARDOUS WASTE</b>	
33.	All the hazardous waste management shall be taken care as mentioned below	Agreed. Compliance assured once project takes off.

		Sr. No	Types of Hazardous Waste	Specific Source of generation	Category	Quantity (MT/Annum)	Management of Disposal
		1	Chemical Sludge	From process, ETP, Scrubber	35.3	13870 Ton/Year	Disposal at the approved Common TSDF site (will explore feasibility to use as Raw material & re-process)
		2	Discarded Containers	Material Storage and Handling	33.1	1200 No./Year	Will be sell to registered recycler for recycling
		3	Used oil	Machinery & D.G. Set	5.1	20 KL/Year	Will be sell to registered recycler for recycling
		4	Oil Soaked Cotton waste & residue	Washing Floor, Machinery maintenance	33.2	1500 kg/Year	Co-incineration & reuse
		5	Graphite Parts	CVD Reactors	B2010	3.0 MT/Year	To recycler/re-user as raw material
		6	Waste Silicon	Process reactors	B1010	15 MT/Year	TSDF & will explore feasibility to use as Raw material & re-process
		7	Spent Activated Carbon	H <sub>2</sub> Plant	A4160	0.25 MT/Year	TSDF & re-process
		8	Filters	Purification Process	36.2	0.25 MT/Year	TSDF & re-user
34.	Authorized end-users shall have permissions from the concerned authorities under the Rule 9 of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016.						Noted. MSL will take due care that Authorized end-users shall have permissions from the concerned authorities.
A. 5.	OTHER:						
35.	The project proponent shall allocate the separate fund of Rs. 36.905 Cr i.e. 0.5 % of the capital investment (whichever is applicable) for activities like Educational activities, Public Health and family welfare and Preservation of Environment, rain water harvesting under Corporate Environment Responsibility (CER) in accordance to the MoEF&CC's Office Memorandum No. F.No.22-65/2017-IA.111 dated 01/05/2018. The entire activities proposed under CER shall be monitored and the monitoring report shall be submitted to the regional office of MoEF&CC as a part of half-yearly compliance report and to district collector. The monitoring report shall be posted on the website of the project proponent.						Noted. MSL has proposed separate fund of Rs. 36.905 Cr i.e. 0.5 % of the capital investment (whichever is applicable) for activities like Educational activities, Public Health and family welfare and Preservation of Environment, rain water harvesting under Corporate Environment Responsibility (CER) in accordance to the MoEF&CC Office Memorandum No. F.No.22-65/2017-IA.111 dated 01/05/2018.
36.	All the recommendations, mitigation measures, environmental protection measures and safeguards proposed in the EIA report of the project prepared by Wolchem India Limited and submitted by project proponent and commitments made during presentation before SEAC and proposed in the EIA report shall be strictly adhered to in letter and spirit.						Agreed & will be taken care off.
B.	GENERAL CONDITIONS						
B. 1	CONSTRUCTION PHASE						



37.	Water demand during construction shall be reduced by use of curing agents, super plasticizers and other best construction practices	Noted. Compliance assured once project takes off.
38.	Project proponent shall ensure that surrounding environment shall not be affected due to construction activity. Construction materials shall be covered during transportation and regular water sprinkling shall be done in vulnerable areas for controlling fugitive emission.	Noted. Will be complied once project takes off. MSL will take appropriate measure to control fugitive emissions.
39.	All required sanitary and hygienic measures shall be provided before starting the construction activities and to be maintained throughout the construction phase.	Noted. Will be complied once project takes off.
40.	First Aid Box shall be made readily available in adequate quantity at all the times.	EMC premises already has a well-established Primary First Aid center.
41.	The project proponent shall strictly comply with the Building and other Construction Workers' (Regulation of Employment & Conditions of Service) Act 1996 and Gujarat rules made there under and their subsequent amendments. Local byelaws of concern authority shall be complied in letter and spirit.	Noted. Will be complied once project takes off.
42.	Ambient noise levels shall conform to residential standards both during day and night. Incremental pollution load on the ambient air and noise quality shall be closely monitored during construction phase.	Noted and will be complied. Regular Noise monitoring reports showing noise quality below prescribed standard are attached as <b>Annexure I</b>
43.	Use of Diesel Generator (DG) sets during construction phase shall be strictly equipped with acoustic enclosure and shall conform to the EPA Rules for air and noise emission standards.	Will be complied once project takes off.
44.	Safe disposal of waste water and municipal solid wastes generated during the construction phase shall be ensured.	Noted. MSL will ensure safe disposal of waste water and municipal solid wastes.
45.	All topsoil excavated during construction activity shall be used in horticultural/landscape development within the project site.	Noted. Will be complied once project takes off.
46.	Excavated earth to be generated during the construction phase shall be utilized within the premises to the maximum extent possible and balance quantity of excavated earth shall be disposed off with the approval of the competent authority after taking the necessary precautions for general safety and health aspects. Disposal of the excavated earth during construction phase shall not create adverse effect neighboring communities	Noted. The proposed area for the project is almost flat. However, MSL will ensure to utilize excavated earth in filling & surface leveling.
47.	Project proponent shall ensure use of eco-friendly building material including fly ash bricks, fly ash paver blocks, Ready Mix Concrete [RMC] and lead free paints in the project.	Noted. Compliance assured once project takes off



		MSL has considered use of Fly Ash based bricks for its construction purpose.
48.	Fly ash shall be used in construction wherever applicable as per provisions of Fly Ash Notification under the E.P. Act, 1986 and its subsequent amendments from time to time.	Noted.
<b>B. 2</b>	<b>OPERATION PHASE</b>	
<b>B. 2.1</b>	<b>WATER</b>	
49.	The water meter shall be installed and records of daily and monthly water consumption shall be maintained.	Noted. Compliance assured once project takes off
50.	All efforts shall be made to optimize water consumption by exploring Best Available Technology (BAT). The unit shall continuously strive to reduce, recycle and reuse the treated effluent.	Noted. MSL will make necessary efforts to optimize water consumption.
<b>B. 2.2:</b>	<b>AIR</b>	
51.	In case of use of spray dryer, the unit shall provide the adequate & efficient APCMs with the spray dryer so that there should not be any adverse impact on human health & environment. Unit shall carry out third party monitoring of the proposed Spray dryer & its APCM through the credible institutes and study report for impacts on Environment and Human Health shall be submitted to GPCB every year along with half yearly compliance report.	MSL has proposed adequate APCM and will be installed once project takes off. It will be ensured to carry out third party monitoring of APCM and report will be sent to GPCB periodically.
52.	Acoustic Enclosures should be provided DG sets (If applicable) to mitigate the noise pollution and shall conform to the EPA Rules for air emission standards.	MSL has proposed adequate APCM and will be installed once project takes off.
53.	Stack/Vents (Whichever is applicable) of adequate height shall be provided as per the prevailing norms for flue gas emission/Process gas emission.	Compliance assured MSL has considered adequate height of vents for process emissions.
54.	Flue gas emission & process gas emission (If any) shall conform to the standards prescribed by the GPCB/CPCB/MoEF&CC. At no time, emission level should go beyond the stipulated standards.	Noted and will be complied after proposed project gets operational.
55.	All the reactors / vessels used in the manufacturing process shall be closed to reduce the fugitive emission.	Noted & agreed.
<b>B. 2.3</b>	<b>HAZARDOUS / SOLID WASTE</b>	
56.	The company shall strictly comply with the rules and regulations with regards to handling and disposal of Hazardous waste in accordance with the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016, as may be amended from time to time. Authorization of the GPCB shall be obtained for collection / treatment / storage / disposal of hazardous wastes.	Agreed and will be complied once project takes off.

57.	Hazardous wastes shall be dried, packed and stored in separate designated hazardous waste storage facility with pucca bottom and leachate collection facility, before its disposal.	Noted.
58.	The unit shall obtain necessary permission from the nearby TSDF site and CHWIF. (Whichever is applicable)	Agreed and will be complied once project takes off.
59.	Trucks/Tankers used for transportation of hazardous waste shall be in accordance with the provisions under the Motor Vehicle Act, 1988, and rules made there under	Compliance assured once project takes off.
60.	The design of the Trucks/tankers shall be such that there is no spillage during transportation	Noted.
61.	All possible efforts shall be made for Co-Processing of the Hazardous waste prior to disposal into TSDF/CHWIF.	MSL will make efforts to reuse/reutilize Hazardous waste prior to disposal.
62.	Management of fly ash (If any) shall be as per the Fly ash Notification 2009 & its amendment time to time and it shall be ensured that there is 100% utilization of fly ash to be generated from the unit.	Noted.
<b>B. 2.4 SAFETY</b>		
63.	The occupier/manager shall strictly comply the provisions under the Factories Act 1948 and the Gujarat Factories Rules 1963.	Noted & Agreed.
64.	The project authorities shall strictly comply with the provisions made in Manufacture. Storage and Import of Hazardous Chemicals Rules (MSIHC) 1989, as amended time to time and the Public Liability Insurance Act for handling of hazardous chemicals etc. Necessary approvals from the Chief Controller of Explosives and concerned Govt. Authorities shall be obtained before commissioning of the project. Requisite On-site and Off-site Disaster Management Plans have to be prepared and implemented.	Compliance assured once project takes off.
65.	Main entry and exit shall be separate and clearly marked in the facility	Noted.
66.	Sufficient peripheral open passage shall be kept in the margin area for free movement office tender/emergency vehicle around the premises	Noted and Agreed.
67.	Storage of flammable chemicals shall be sufficiently away from the production area.	Noted and Agreed. Will be complied once project takes off.
68.	Sufficient number of fire extinguishers shall be provided near the plant and storage area	Noted and Agreed. Will be complied once project takes off.
69.	All necessary precautionary measures shall be taken to avoid any kind of accident storage and handling of toxic / hazardous chemicals	Noted and Agreed.
70.	All the toxic/hazardous chemicals shall be stored in optimum quantity and all necessary permissions in this	Noted.

	regard shall be obtained before commencing the expansion activities.	
71.	The project management shall ensure to comply with all the environment protection measures, risk mitigation measures and safeguards mentioned in the Risk Assessment report.	Noted and Agreed.
72.	Only flame proof electrical fittings shall be provided in the plant premises	Agreed. Flame proof electric fitting will be considered during designing
73.	Storage of hazardous chemicals shall be minimized and it shall be in multiple small capacity tanks / containers instead of one single large capacity tank / containers.	Noted and Agreed.
74.	All the storage tanks shall be fitted with appropriate controls to avoid any leakages. Bund/dyke walls shall be provided for storage tanks for Hazardous chemicals	Noted and Agreed.
75.	Handling and charging of the chemicals shall be done in closed manner by pumping or by vacuum transfer so that minimal human exposure occurs.	Noted. MSL has proposed closed handling and charging system for chemicals & reactors.
76.	Tie up shall be done with nearby health care unit / doctor for seeking immediate medical attention in the case of emergency.	Noted and Agreed.
77.	Personal Protective Equipments (PPEs) shall be provided to workers and its usage shall be ensured and supervised.	Noted and Agreed. Appropriative actions will be taken for safety of manpower.
78.	First Aid Box and required antidotes for the chemicals used in the unit shall be made readily available in adequate quantity.	Noted.
79.	Training shall be imparted to all the workers on safety and health aspects of chemicals handling	Agreed. Compliance assured once project takes off.
80.	Occupational health surveillance of the workers shall be done and its records shall be maintained. Pre-employment and periodical medical examination for all the workers shall be undertaken as per the Factories Act & Rules.	Noted and agreed. Compliance assured once project takes off.
81.	Transportation of hazardous chemicals shall be done as per the provisions of the Motor Vehicle Act & Rules.	Agreed.
82.	The company shall implement all preventive and mitigation measures suggested in the Risk Assessment Report.	Agreed. MSL will implement preventive and mitigation measures as mentioned in Risk Plan.
83.	Necessary permissions from various statutory authorities like PESO, Factory Inspectorate and others shall be obtained prior to commissioning of the project.	Compliance assured.
<b>B. 2.5 NOISE:</b>		
84.	The overall noise level in and around the plant area shall be kept well within the standards by providing noise	Noted and will be complied during operation phase.

	control measures including Engineering controls like acoustic insulation hoods, silencers, enclosures, etc. on all sources of noise generation. The ambient noise level shall confirm to the standards prescribed under The Environment (Protection) Act, 1986 & Rules.	Regular Noise monitoring reports showing noise quality below prescribed standard are attached as <b>Annexure I</b> .
<b>B. 2.6 CLEANER PRODUCTION AND WASTE MINIMISATION:</b>		
85.	The unit shall undertake the Cleaner Production Assessment study through a reputed institute / organization and shall form a CP team in the company. The recommendations thereof along with the compliance shall be furnished to the GPCB.	Noted. Compliance assured once project takes off
86.	The company shall undertake various waste minimization measures such as : a. Metering and control of quantities of active ingredients to minimize waste. b. Reuse of by-products from the process as raw materials or as raw materials substitutes. c. Use of automated and close filling to minimize spillages d. Use of close feed system into batch reactors e. Venting equipment through vapour recovery system f. Use of high pressure hoses for cleaning to reduce wastewater generation g. Recycling of washes to subsequent batches h. Recycling of steam condensate i. Sweeping 1 mopping of floor instead of floor washing to avoid effluent generation j. Regular preventive maintenance for avoiding leakage, spillage etc.	Noted and will be considered during operation phase.
<b>B. 2.7 GREEN BELT AND OTHER PLANTATION:</b>		
87.	The unit shall develop green belt within premises as per the CPCB guidelines. However, if the adequate land is not available within the premises, the unit shall take up adequate plantation on road sides and suitable open areas in GIDC estate or any other open areas in consultation with the GIDC / GPCB and submit an action plan of plantation for next three years to the GPCB.	Compliance assured once project takes off.
88.	Drip irrigation / low-volume, low-angle sprinkler system shall be used for the green belt development within the premises	Compliance assured once project takes off.
<b>B. 3 OTHER CONDITION:</b>		
89.	Unit shall comply all the applicable standard conditions prescribed in Office Memorandum (OM) published by MoEF&CC vide no. F. No. 22-34/2018-IA.III dated 09/08/2018.	Noted and will be complied once project takes off.

90.	The project proponent shall allocate the separate fund for Corporate Environment Responsibility (CER) in accordance to the MoEFCC's Office Memorandum No. F.No.22-65/2017-IA.III dated 01/05/2018 to carry out the activities under CER in affected area around the project. The entire activities proposed under CER shall be monitored and the monitoring report shall be submitted to the regional office of MOEFCC as part of half-yearly compliance report and to district collector. The monitoring report shall be posted on the website of the project proponent.	Noted and Agreed.
91.	Rain water harvesting of surface as well as rooftop runoff shall be undertaken and the same water shall be used for the various activities of the project to conserve fresh water as well as recharge ground water. Before recharging the surface runoff, pre-treatment must be done to remove suspended matter.	Noted Compliance assured once project takes off.
92.	The unit shall join and participate financially and technically for any common environment facility / infrastructure as and when the same is taken up either by the industrial Association or GIDC or any such authority created for this purpose by the Govt. / GIDC	Noted and Agreed
93.	Application of solar energy shall be incorporated for illumination of common areas, lighting for gardens and street lighting in addition the provision for solar water heating system shall also be provided.	Noted MSL will explore the feasibility of using solar energy within the premises.
94.	The area earmarked as green area shall be used only for plantation and shall not be altered for any other purpose.	Noted and Agreed.
95.	All the commitments / undertakings given to the SEAC during the appraisal process for the purpose of environmental protection and management shall be strictly adhered to.	Noted and Agreed.
96.	The project proponent shall also comply with any additional condition that may be Imposed by the SEAC or the SEIAA or any other competent authority for the purpose for the environmental protection and management	Noted and Agreed.
97.	In the event of failure of any pollution control system adopted by the unit, the unit shall be safely closed down and shall not be restarted until the desired efficiency of the control equipment has been achieved.	Noted and Agreed.
98.	The project authorities must strict adhered to the stipulations made by the Gujarat Pollution Control Board (GPCB), State Government and any statutory Authority.	Noted and Agreed.

99.	During material transfer there shall be no spillages and garland drain shall be constructed to avoid mixing of accidental spillages with domestic wastewater or storm water.	Noted and Agreed.
100.	Pucca flooring / impervious layer shall be provided in the work areas, chemical storage areas and chemical handling areas to minimize soil contamination.	Compliance assured once project takes off.
101.	Leakages from pipes, pumps shall be minimal and if occurs, shall be arrested promptly.	Compliance assured once project takes off.
102.	No further expansion or modifications in the plant likely to cause environmental impacts shall be carried out without obtaining prior Environment Clearance from the concerned authority.	Noted and Agreed.
103.	The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008 and the Public Liability Insurance Act, 1991 along with their amendments and rules.	Agreed and will be complied once project takes off.
104.	The project proponent shall comply all the conditions mentioned in "The Companies (Corporate Social Responsibility Policy) Rules, 2014" and its amendments from time to time in a letter and spirit.	Agreed and will be complied once project takes off.
105.	The project management shall ensure that unit complies with all the environment protection measures, risk mitigation measures and safeguards recommended in the EMP report and Risk Assessment study report as well as proposed by project proponent.	Agreed and will be complied once project takes off.
106.	The project authorities shall earmark adequate funds to implement the conditions stipulated by SEIAA as well as GPCB along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose.	Noted and Agreed
107.	The applicant shall inform the public that the project has been accorded environmental clearance by the SEIAA and that the copies of the clearance letter are available with the GPCB and may also be seen at the Website of SEIAA/SEAC/GPCB. This shall be advertised within seven days from the date of the clearance letter, in at least two local newspapers that are widely circulated in the region, one of which shall be in the Gujarati language and the other in English. A copy each of the same shall be forwarded to the concerned Regional Office of the Ministry.	Complied. MSL has published the advertisement in one English language newspaper "The INDIAN EXPRESS, Ahmedabad" (Page 3) and one local language Gujarati newspaper "KUTCH MITRA, Bhuj" (Page 5) dated 18 <sup>th</sup> September 2019. Clippings of newspaper advertisement already submitted in compliance report of October'2019 – March'2020

108.	It shall be mandatory for the project management to submit half-yearly compliance report in respect of the stipulated prior environmental clearance terms and conditions in soft copies to the regulatory authority concerned, on 1 <sup>st</sup> June and 1 <sup>st</sup> December of each calendar year.	Noted Being Complied.
109.	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 provision of Environment (Protection) Act, 1986.	Noted & Agreed.
110.	The project authorities shall also adhere to the stipulations made by the Gujarat Pollution Control Board.	Noted & Agreed.
111.	The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not found satisfactory.	Noted & Agreed.
112.	The company in a time bound manner shall implement these conditions. The SEIAA reserves the right to stipulate additional conditions, if the same is found necessary.	Noted & Agreed.
113.	The project authorities shall inform the GPCB, Regional Office, MoEF and SEIAA about the date of financial closure and final approval of the project by the concerned authority and date of start of project.	Noted & will be informed in time.
114.	This environmental clearance is valid for seven years from, the date of Issue	Noted & Agreed.
115.	Any appeal against this environmental/clearance shall lie with the National Green tribunal, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010	Noted & Agreed.
116.	Submission of any false or misleading information or data which is material to screening or scoping or appraisal or decision on the application makes this environment clearance cancelled.	Noted & Agreed.



Environmental Monthly Report  
May'2020

# 1.0 AMBIENT AIR QUALITY MONITORING REPORT



**Period: May - 2020**

**FOR**



**M/s.MUNDRA SOLAR PV LIMITED**

**Village Vandh&Tunda, Taluka Mundra,  
Mundra, Kutch 370 435, Gujarat. India.**

**Monitoring Organization**



White House,  
Near G.I.D.C. Office, Char Rasta,  
Vapi-396 195, Gujarat, India.  
Phone : +91 260 2433966 / 2425610  
Email : [response@uerl.in](mailto:response@uerl.in) Website : [www.uerl.in](http://www.uerl.in)

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QCI-NABET Accredited EIA  
Consultant Organization

GPCB Recognized Environmental  
Auditor (Schedule-II)

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Certified Company

ISO 9001:2015  
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ISO 9001:2015 Certified Company

**TEST REPORT  
(AMBIENT AIR MONITORING)**

Test Report No.:	URAL/20/05/MSPVL/A-001	Report Issue Date	25/05/2020
Service Request form No.:	UERL/AIR/SRF/05/A-001	Service Request Date	07/05/2020
Sample ID No.:	UERL/AIR/ID/A-20/05/001	Field Data Sheet No.	UERL/AIR/FDS/A-20/05/001
Name & Add. of Customer	<b>M/s. Mundra Solar PV Limited</b>  Village Vandh & Tunda, Taluka Mundra, Mundra, Kutch 370 435, Gujarat. India.		
Dates of Sampling :	07/05/2020	Date of Testing	15/05/2020
Location of Sampling / Monitoring:	<b>Near Canteen Area.</b>		
Sampling Method	<b>IS:5182(Part-14) and IS:5182 (Part-5)</b>		

➤ **Details of Master Instrument Used for Monitoring**

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/25	Respirable Dust Sampler	1744-DTA-2013, 1127-DTJ-2012	19/01/2020	19/01/2021
UERL/AIR/FPS/51	Fine Particulate Sampler	137-DTD-2013	21/04/2019	19/04/2021

➤ **General Sampling / Monitoring Observation as per CPCB Guideline**

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	H	24
2.	Flow Rate of PM <sub>10</sub>	m <sup>3</sup> /min	1.28
3.	Volume of Air Sampled for PM <sub>10</sub>	m <sup>3</sup>	1843.2
4.	Volume of Air Sampled for PM <sub>2.5</sub>	m <sup>3</sup>	24.04

➤ **Test Parameter Results**


Sr. No.	Test Parameter	Unit	Result	Specific Value (As per NAAQMS)
1.	Particulate Matter PM <sub>10</sub>	µg/m <sup>3</sup>	68	<b>100</b>
2.	Particulate Matter PM <sub>2.5</sub>	µg/m <sup>3</sup>	26	<b>60</b>
3.	Sulphur Dioxide	µg/m <sup>3</sup>	12.1	<b>80</b>
4.	Nitrogen Dioxide	µg/m <sup>3</sup>	14.3	<b>80</b>

**Sampling Done By:**



(Chemist) / (Environment Engg.)

**Tested By:**



(Chemist) / (Sr. Chemist)

**Authorized By:**



(Sr. Chemist)

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**TEST REPORT  
(AMBIENT AIR MONITORING)**

Test Report No.:	URAL/20/05/MSPVL/A-002	Report Issue Date	25/05/2020
Service Request form No.:	UERL/AIR/SRF/05/A-002	Service Request Date	07/05/2020
Sample ID No.:	UERL/AIR/ID/A-20/05/002	Field Data Sheet No.	UERL/AIR/FDS/A-20/05/002
Name & Add. of Customer	<b>M/s. Mundra Solar PV Limited</b> Village Vandh & Tunda, Taluka Mundra, Mundra, Kutch 370 435, Gujarat. India.		
Dates of Sampling :	07/05/2020	Date of Testing	15/05/2020
Location of Sampling / Monitoring:	<b>Near ETP Guard Basin (MSTPL)</b>		
Sampling Method	<b>IS:5182(Part-14) and IS:5182 (Part-5)</b>		

➤ **Details of Master Instrument Used for Monitoring**

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/27	Respirable Dust Sampler	1751-DTA-2013,1142-DTA-2013	19/01/2020	19/01/2021
UERL/AIR/FPS/42	Fine Particulate Sampler	125-DTD-2013	08/07/2019	08/07/2020

➤ **General Sampling / Monitoring Observation as per CPCB Guideline**

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	H	24.10
2.	Flow Rate of PM <sub>10</sub>	m <sup>3</sup> /min	1.26
3.	Volume of Air Sampled for PM <sub>10</sub>	m <sup>3</sup>	1821.96
4.	Volume of Air Sampled for PM <sub>2.5</sub>	m <sup>3</sup>	24.14

➤ **Test Parameter Results**

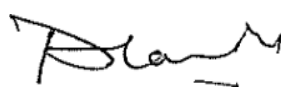
Sr. No.	Test Parameter	Unit	Result	Specific Value (As per NAAQMS)
1.	Particulate Matter PM <sub>10</sub>	µg/m <sup>3</sup>	62	<b>100</b>
2.	Particulate Matter PM <sub>2.5</sub>	µg/m <sup>3</sup>	22	<b>60</b>
3.	Sulphur Dioxide	µg/m <sup>3</sup>	10.4	<b>80</b>
4.	Nitrogen Dioxide	µg/m <sup>3</sup>	14.2	<b>80</b>

**Sampling Done By:**



(Chemist) / (Environment Engg.)

**Tested By:**



(Chemist) / (Sr. Chemist)

**Authorized By:**



(Sr. Chemist)

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**TEST REPORT  
(AMBIENT AIR MONITORING)**

Test Report No.:	URAL/20/05/MSPVL/A-003	Report Issue Date	25/05/2020
Service Request form No.:	UERL/AIR/SRF/05/A-003	Service Request Date	07/05/2020
Sample ID No.:	UERL/AIR/ID/A-20/05/003	Field Data Sheet No.	UERL/AIR/FDS/A-20/05/003
Name & Add. of Customer	<b>M/s. Mundra Solar PV Limited</b> Village Vandh & Tunda, Taluka Mundra, Mundra, Kutch 370 435, Gujarat. India.		
Dates of Sampling :	07/05/2020	Date of Testing	15/05/2020
Location of Sampling / Monitoring:	<b>Near Occupational Health Center.</b>		
Sampling Method	<b>IS:5182(Part-14) and IS:5182 (Part-5)</b>		

➤ **Details of Master Instrument Used for Monitoring**

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/25	Respirable Dust Sampler	1745-DTB-2013, 1151-DTB-2013	19/01/2020	19/01/2021
UERL/AIR/FPS/51	Fine Particulate Sampler	129-DTB-2013	08/07/2019	08/07/2020

➤ **General Sampling / Monitoring Observation as per CPCB Guideline**

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	H	23.45
2.	Flow Rate of PM <sub>10</sub>	m <sup>3</sup> /min	1.22
3.	Volume of Air Sampled for PM <sub>10</sub>	m <sup>3</sup>	1716.54
4.	Volume of Air Sampled for PM <sub>2.5</sub>	m <sup>3</sup>	23.49

➤ **Test Parameter Results**

Sr. No.	Test Parameter	Unit	Result	Specific Value (As per NAAQMS)
1.	Particulate Matter PM <sub>10</sub>	µg/m <sup>3</sup>	58	<b>100</b>
2.	Particulate Matter PM <sub>2.5</sub>	µg/m <sup>3</sup>	18	<b>60</b>
3.	Sulphur Dioxide	µg/m <sup>3</sup>	8.9	<b>80</b>
4.	Nitrogen Dioxide	µg/m <sup>3</sup>	12.4	<b>80</b>

**Sampling Done By:**



(Chemist) / (Environment Engg.)

**Tested By:**



(Chemist) / (Sr. Chemist)

**Authorized By:**



(Sr. Chemist)

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**TEST REPORT  
(AMBIENT AIR MONITORING)**

Test Report No.:	URAL/20/05/MSPVL/A-004	Report Issue Date	25/05/2020
Service Request form No.:	UERL/AIR/SRF/05/A-004	Service Request Date	08/05/2020
Sample ID No.:	UERL/AIR/ID/A-20/05/004	Field Data Sheet No.	UERL/AIR/FDS/A-20/05/004
Name & Add. of Customer	<b>M/s. Mundra Solar PV Limited</b>  Village Vandh & Tunda, Taluka Mundra, Mundra, Kutch 370 435, Gujarat. India.		
Dates of Sampling :	08/05/2020	Date of Testing	15/05/2020
Location of Sampling / Monitoring:	<b>Near Village Vandh</b>		
Sampling Method	<b>IS:5182(Part-14) and IS:5182 (Part-5)</b>		

➤ **Details of Master Instrument Used for Monitoring**

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/27	Respirable Dust Sampler	1751-DTA-2013,1142-DTA-2013	19/01/2020	19/01/2021
UERL/AIR/FPS/42	Fine Particulate Sampler	125-DTD-2013	08/07/2019	09/07/2020

➤ **General Sampling / Monitoring Observation as per CPCB Guideline**

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	H	23.55
2.	Flow Rate of PM <sub>10</sub>	m <sup>3</sup> /min	1.30
3.	Volume of Air Sampled for PM <sub>10</sub>	m <sup>3</sup>	1836.9
4.	Volume of Air Sampled for PM <sub>2.5</sub>	m <sup>3</sup>	23.59

➤ **Test Parameter Results**

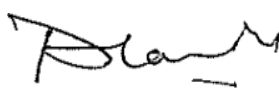
Sr. No.	Test Parameter	Unit	Result	Specific Value (As per NAAQMS)
1.	Particulate Matter PM <sub>10</sub>	µg/m <sup>3</sup>	76	<b>100</b>
2.	Particulate Matter PM <sub>2.5</sub>	µg/m <sup>3</sup>	34	<b>60</b>
3.	Sulphur Dioxide	µg/m <sup>3</sup>	16.3	<b>80</b>
4.	Nitrogen Dioxide	µg/m <sup>3</sup>	14.8	<b>80</b>

**Sampling Done By:**



(Chemist) / (Environment Engg.)

**Tested By:**



(Chemist) / (Sr. Chemist)

**Authorized By:**



(Sr. Chemist)

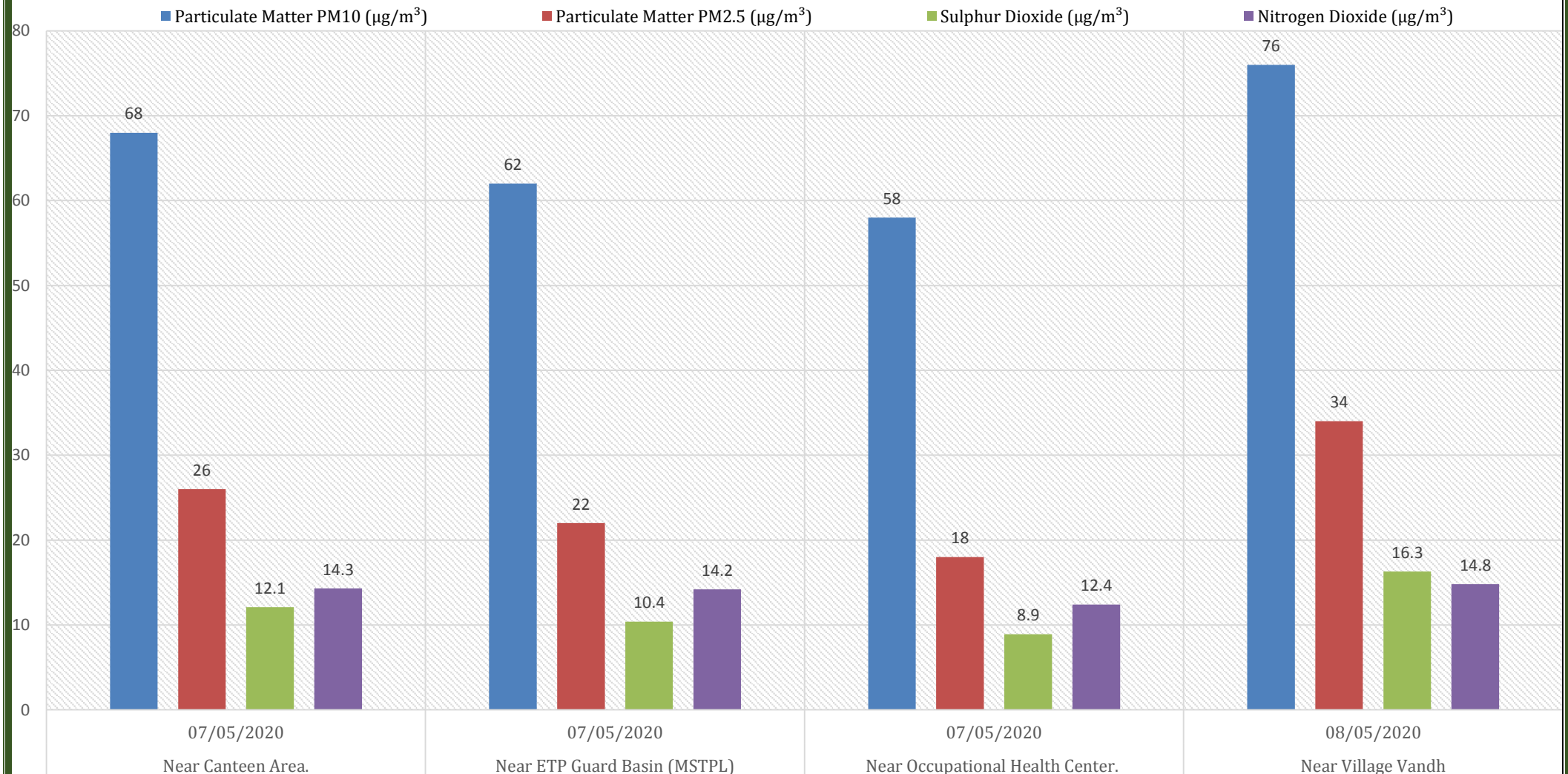
# Graphical Presentation of Ambient Air Quality Data

For M/s. Mundra Solar PV Limited.

By – UniStar Environment and Research Labs Pvt. Ltd.



## Ambient Air Quality Monitoring Programme





# 3.0 NOISE LEVEL MONITORING REPORT



**Period: May - 2020**

**FOR**



**M/s.MUNDRA SOLAR PV LIMITED**

**Village Vandh & Tunda, Taluka Mundra,  
Mundra, Kutch 370 435, Gujarat. India.**

**Monitoring Organization**



White House,  
Near G.I.D.C. Office, Char Rasta,  
Vapi-396 195, Gujarat, India.  
Phone : +91 260 2433966 / 2425610  
Email : response@uerl.in Website : www.uerl.in

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Certified Company

### NOISE LEVEL MONITORING REPORT

<b>Test Report No.:</b>	<b>UERL/20/05/MSPVL/N-001</b>	<b>Date Of Report:</b>	<b>25/05/2020</b>
<b>Name &amp; Add. Of Industries</b>	<b>M/s. Mundra Solar PV Limited</b> Village Vandh&Tunda, Taluka Mundra, Mundra, Kutch 370 435, Gujarat. India.		

➤ **Details of Instrument Used for Monitoring.**

<b>Instrument Id No.</b>	<b>Instrument Name</b>	<b>Model Number</b>	<b>Cali. Date</b>	<b>Next Cali. Date</b>
UERL/AIR/SLM/Q630838	Sound Level Meter	SL 4023 SD	31/01/2020	30/01/2021
<b>Sampling Method.</b>	CPCB Guideline			

Date of Monitoring : **07/05/2020**

### Result

<b>Sr. No.</b>	<b>Location within company premises</b>	<b>Noise Level dB(A)</b>		<b>Permissible Limit CPCB</b>	
		<b>Day Time</b>	<b>Night Time</b>	<b>Day Time</b>	<b>Night Time</b>
1.	North: Near Canteen area	51.1	48.6	<75 dB(A)	<70 dB(A)
2.	South: Near 66 KVA Sub Station	53.4	44.2	<75 dB(A)	<70 dB(A)
3.	East: Near COE Building	55.6	46.3	<75 dB(A)	<70 dB(A)
4.	West: Near ETP Guard basin	54.8	42.8	<75 dB(A)	<70 dB(A)
5.	Near Pump House	52.7	42.6	<75 dB(A)	<70 dB(A)

Note: Ambient Air Quality Standards in respected of Noise as per CPCB.

<b>Area Code</b>	<b>Category of Area/Zone</b>	<b>Limit in dB (A) Leq</b>	
		<b>Day Time (6:00 am to 10:00 pm)</b>	<b>Night Time (10:00 pm to 6:00 am)</b>
(A)	Industrial area	75	70
(B)	Commercial area	65	55
(C)	Residential area	55	45
(D)	Silence Zone	50	40

**Checked By**



**Authorized By**



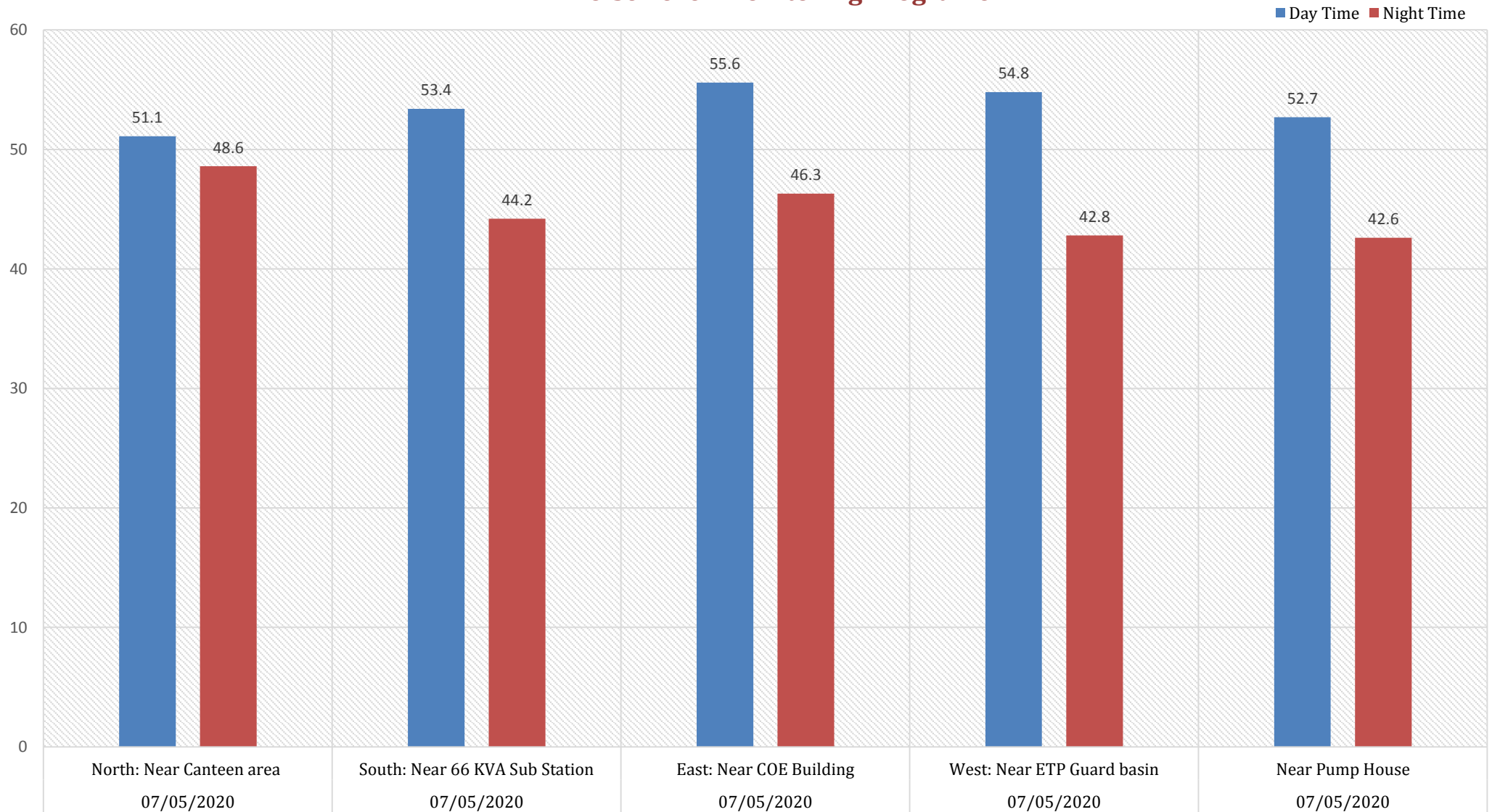
# Graphical Presentation of Noise Level Monitoring Data

For M/s. Mundra Solar PV Limited.

By – UniStar Environment and Research Labs Pvt. Ltd.



NM: "Noise Level Monitoring Programme"



Environmental Monthly Report  
June'2020

# 1.0 AMBIENT AIR QUALITY MONITORING REPORT



Period: June - 2020

FOR



**M/s.MUNDRA SOLAR PV LIMITED**

**Village Vandh&Tunda, Taluka Mundra,  
Mundra, Kutch 370 435, Gujarat. India.**

**Monitoring Organization**



White House,  
Near G.I.D.C. Office, Char Rasta,  
Vapi-396 195, Gujarat, India.  
Phone : +91 260 2433966 / 2425610  
Email : [response@uerl.in](mailto:response@uerl.in) Website : [www.uerl.in](http://www.uerl.in)

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ISO 9001:2015  
Certified Company

ISO 45001:2018  
Certified Company

**TEST REPORT**  
**(AMBIENT AIR MONITORING)**

Test Report No.:	URAL/20/06/MSPVL/A-001	Report Issue Date	30/06/2020
Service Request form No.:	UERL/AIR/SRF/06/A-001	Service Request Date	19/06/2020
Sample ID No.:	UERL/AIR/ID/A-20/06/001	Field Data Sheet No.	UERL/AIR/FDS/A-20/06/001
Name & Add. of Customer	<b>M/s. Mundra Solar PV Limited</b>  Village Vandh & Tunda, Taluka Mundra, Mundra, Kutch 370 435, Gujarat. India.		
Dates of Sampling :	19/06/2020	Date of Testing	23/06/2020
Location of Sampling / Monitoring:	<b>Near Canteen Area.</b>		
Sampling Method	<b>IS:5182(Part-14) and IS:5182 (Part-5)</b>		

➤ **Details of Master Instrument Used for Monitoring**

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/25	Respirable Dust Sampler	1744-DTA-2013, 1127-DTJ-2012	19/01/2020	19/01/2021
UERL/AIR/FPS/51	Fine Particulate Sampler	137-DTD-2013	21/04/2019	19/04/2021

➤ **General Sampling / Monitoring Observation as per CPCB Guideline**

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	H	24
2.	Flow Rate of PM <sub>10</sub>	m <sup>3</sup> /min	1.32
3.	Volume of Air Sampled for PM <sub>10</sub>	m <sup>3</sup>	1900.8
4.	Volume of Air Sampled for PM <sub>2.5</sub>	m <sup>3</sup>	24.04

➤ **Test Parameter Results**

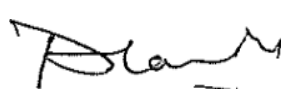
Sr. No.	Test Parameter	Unit	Result	Specific Value (As per NAAQMS)
1.	Particulate Matter PM <sub>10</sub>	µg/m <sup>3</sup>	66	<b>100</b>
2.	Particulate Matter PM <sub>2.5</sub>	µg/m <sup>3</sup>	22	<b>60</b>
3.	Sulphur Dioxide	µg/m <sup>3</sup>	10.2	<b>80</b>
4.	Nitrogen Dioxide	µg/m <sup>3</sup>	12.4	<b>80</b>

**Sampling Done By:**



(Chemist) / (Environment Engg.)

**Tested By:**



(Chemist) / (Sr. Chemist)

**Authorized By:**



(Sr. Chemist)

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Certified Company

ISO 45001:2018  
Certified Company

**TEST REPORT**  
**(AMBIENT AIR MONITORING)**

Test Report No.:	URAL/20/06/MSPVL/A-002	Report Issue Date	30/06/2020
Service Request form No.:	UERL/AIR/SRF/06/A-002	Service Request Date	19/06/2020
Sample ID No.:	UERL/AIR/ID/A-20/06/002	Field Data Sheet No.	UERL/AIR/FDS/A-20/06/002
Name & Add. of Customer	<b>M/s. Mundra Solar PV Limited</b>  Village Vandh & Tunda, Taluka Mundra, Mundra, Kutch 370 435, Gujarat. India.		
Dates of Sampling :	19/06/2020	Date of Testing	23/06/2020
Location of Sampling / Monitoring:	<b>Near ETP Guard Basin (MSTPL)</b>		
Sampling Method	<b>IS:5182(Part-14) and IS:5182 (Part-5)</b>		

➤ **Details of Master Instrument Used for Monitoring**

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/27	Respirable Dust Sampler	1751-DTA-2013,1142-DTA-2013	19/01/2020	19/01/2021
UERL/AIR/FPS/42	Fine Particulate Sampler	125-DTD-2013	08/07/2019	08/07/2020

➤ **General Sampling / Monitoring Observation as per CPCB Guideline**

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	H	23.50
2.	Flow Rate of PM <sub>10</sub>	m <sup>3</sup> /min	1.24
3.	Volume of Air Sampled for PM <sub>10</sub>	m <sup>3</sup>	1748.4
4.	Volume of Air Sampled for PM <sub>2.5</sub>	m <sup>3</sup>	23.54

➤ **Test Parameter Results**

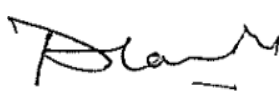
Sr. No.	Test Parameter	Unit	Result	Specific Value (As per NAAQMS)
1.	Particulate Matter PM <sub>10</sub>	µg/m <sup>3</sup>	58	<b>100</b>
2.	Particulate Matter PM <sub>2.5</sub>	µg/m <sup>3</sup>	21	<b>60</b>
3.	Sulphur Dioxide	µg/m <sup>3</sup>	12.3	<b>80</b>
4.	Nitrogen Dioxide	µg/m <sup>3</sup>	15.8	<b>80</b>

**Sampling Done By:**



(Chemist) / (Environment Engg.)

**Tested By:**



(Chemist) / (Sr. Chemist)

**Authorized By:**



(Sr. Chemist)



**TEST REPORT**  
**(AMBIENT AIR MONITORING)**

Test Report No.:	URAL/20/06/MSPVL/A-003	Report Issue Date	30/06/2020
Service Request form No.:	UERL/AIR/SRF/06/A-003	Service Request Date	19/06/2020
Sample ID No.:	UERL/AIR/ID/A-20/06/003	Field Data Sheet No.	UERL/AIR/FDS/A-20/06/003
Name & Add. of Customer	<b>M/s. Mundra Solar PV Limited</b>  Village Vandh & Tunda, Taluka Mundra, Mundra, Kutch 370 435, Gujarat. India.		
Dates of Sampling :	19/06/2020	Date of Testing	23/06/2020
Location of Sampling / Monitoring:	<b>Near Occupational Health Center.</b>		
Sampling Method	<b>IS:5182(Part-14) and IS:5182 (Part-5)</b>		

➤ **Details of Master Instrument Used for Monitoring**

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/25	Respirable Dust Sampler	1745-DTB-2013, 1151-DTB-2013	19/01/2020	19/01/2021
UERL/AIR/FPS/51	Fine Particulate Sampler	129-DTB-2013	08/07/2019	08/07/2020

➤ **General Sampling / Monitoring Observation as per CPCB Guideline**

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	H	24.05
2.	Flow Rate of PM <sub>10</sub>	m <sup>3</sup> /min	1.30
3.	Volume of Air Sampled for PM <sub>10</sub>	m <sup>3</sup>	1875.9
4.	Volume of Air Sampled for PM <sub>2.5</sub>	m <sup>3</sup>	24.09

➤ **Test Parameter Results**

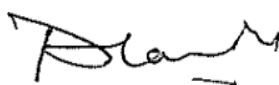
Sr. No.	Test Parameter	Unit	Result	Specific Value (As per NAAQMS)
1.	Particulate Matter PM <sub>10</sub>	µg/m <sup>3</sup>	66	<b>100</b>
2.	Particulate Matter PM <sub>2.5</sub>	µg/m <sup>3</sup>	18	<b>60</b>
3.	Sulphur Dioxide	µg/m <sup>3</sup>	11.2	<b>80</b>
4.	Nitrogen Dioxide	µg/m <sup>3</sup>	16.3	<b>80</b>

**Sampling Done By:**



(Chemist) / (Environment Engg.)

**Tested By:**



(Chemist) / (Sr. Chemist)

**Authorized By:**



(Sr. Chemist)

**TEST REPORT**  
**(AMBIENT AIR MONITORING)**

Test Report No.:	URAL/20/06/MSPVL/A-004	Report Issue Date	30/06/2020
Service Request form No.:	UERL/AIR/SRF/06/A-004	Service Request Date	20/06/2020
Sample ID No.:	UERL/AIR/ID/A-20/06/004	Field Data Sheet No.	UERL/AIR/FDS/A-20/06/004
Name & Add. of Customer	<b>M/s. Mundra Solar PV Limited</b>  Village Vandh & Tunda, Taluka Mundra, Mundra, Kutch 370 435, Gujarat. India.		
Dates of Sampling :	20/06/2020	Date of Testing	23/06/2020
Location of Sampling / Monitoring:	<b>Near Village Vandh</b>		
Sampling Method	<b>IS:5182(Part-14) and IS:5182 (Part-5)</b>		

➤ **Details of Master Instrument Used for Monitoring**

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/27	Respirable Dust Sampler	1751-DTA-2013,1142-DTA-2013	19/01/2020	19/01/2021
UERL/AIR/FPS/42	Fine Particulate Sampler	125-DTD-2013	08/07/2019	09/07/2020

➤ **General Sampling / Monitoring Observation as per CPCB Guideline**

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	H	24
2.	Flow Rate of PM <sub>10</sub>	m <sup>3</sup> /min	1.28
3.	Volume of Air Sampled for PM <sub>10</sub>	m <sup>3</sup>	1843.2
4.	Volume of Air Sampled for PM <sub>2.5</sub>	m <sup>3</sup>	24.04

➤ **Test Parameter Results**

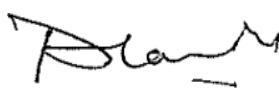
Sr. No.	Test Parameter	Unit	Result	Specific Value (As per NAAQMS)
1.	Particulate Matter PM <sub>10</sub>	µg/m <sup>3</sup>	82	<b>100</b>
2.	Particulate Matter PM <sub>2.5</sub>	µg/m <sup>3</sup>	26	<b>60</b>
3.	Sulphur Dioxide	µg/m <sup>3</sup>	15.6	<b>80</b>
4.	Nitrogen Dioxide	µg/m <sup>3</sup>	18.2	<b>80</b>

**Sampling Done By:**



(Chemist) / (Environment Engg.)

**Tested By:**



(Chemist) / (Sr. Chemist)

**Authorized By:**



(Sr. Chemist)

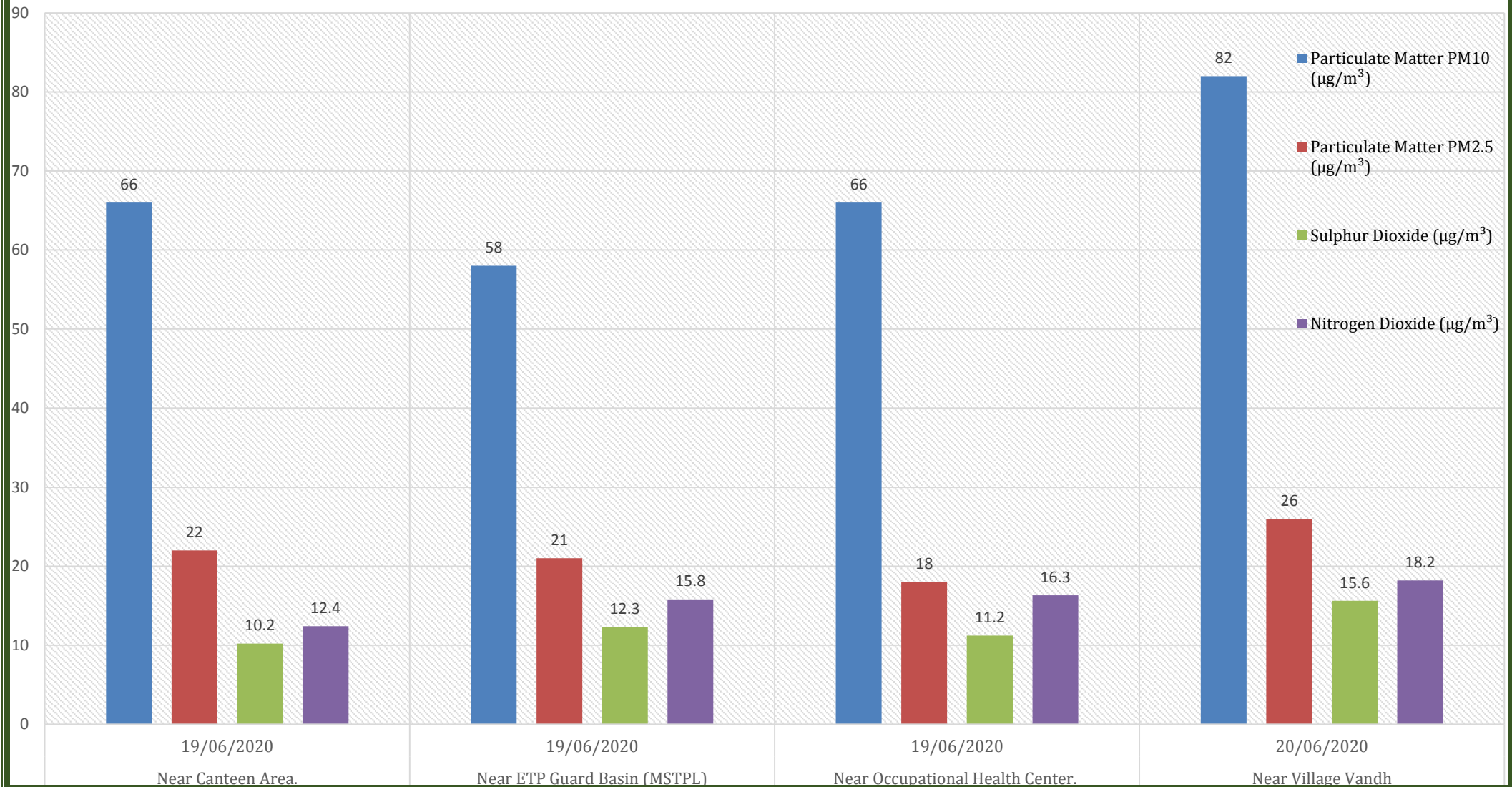
# Graphical Presentation of Ambient Air Quality Data

For M/s. Mundra Solar PV Limited.

By – UniStar Environment and Research Labs Pvt. Ltd.



## Ambient Air Quality Monitoring Programme



# 3.0 NOISE LEVEL MONITORING REPORT



**Period: June - 2020**

**FOR**



**M/s.MUNDRA SOLAR PV LIMITED**

**Village Vandh & Tunda, Taluka Mundra,  
Mundra, Kutch 370 435, Gujarat. India.**

**Monitoring Organization**



White House,  
Near G.I.D.C. Office, Char Rasta,  
Vapi-396 195, Gujarat, India.  
Phone : +91 260 2433966 / 2425610  
Email : [response@uerl.in](mailto:response@uerl.in) Website : [www.uerl.in](http://www.uerl.in)

MoEF&CC (GOI) Recognized Environmental  
Laboratory under the EPA-1986 (12.01.2020 to 17.03.2023)

QCI-NABET Accredited EIA  
Consultant Organization

GPCB Recognized Environmental  
Auditor (Schedule-II)

ISO 9001:2015  
Certified Company

ISO 45001:2018  
Certified Company

### NOISE LEVEL MONITORING REPORT

Test Report No.:	UERL/20/06/MSPVL/N-001	Date Of Report:	30/06/2020
Name & Add. Of Industries	M/s. Mundra Solar PV Limited Village Vandh&Tunda, Taluka Mundra, Mundra, Kutch 370 435, Gujarat. India.		

➤ **Details of Instrument Used for Monitoring.**

Instrument Id No.	Instrument Name	Model Number	Cali. Date	Next Cali. Date
UERL/AIR/SLM/Q630838	Sound Level Meter	SL 4023 SD	31/01/2020	30/01/2021
Sampling Method.	CPCB Guideline			

Date of Monitoring : 19/06/2020

### Result

Sr. No.	Location within company premises	Noise Level dB(A)		Permissible Limit CPCB	
		Day Time	Night Time	Day Time	Night Time
1.	North: Near Canteen area	52.3	46.8	<75 dB(A)	<70 dB(A)
2.	South: Near 66 KVA Sub Station	55.8	42.1	<75 dB(A)	<70 dB(A)
3.	East: Near COE Building	56.3	45.6	<75 dB(A)	<70 dB(A)
4.	West: Near ETP Guard basin	51.2	44.8	<75 dB(A)	<70 dB(A)
5.	Near Pump House	53.4	46.2	<75 dB(A)	<70 dB(A)

Note: Ambient Air Quality Standards in respected of Noise as per CPCB.

Area Code	Category of Area/Zone	Limit in dB (A) Leq	
		Day Time (6:00 am to 10:00 pm)	Night Time (10:00 pm to 6:00 am)
(A)	Industrial area	75	70
(B)	Commercial area	65	55
(C)	Residential area	55	45
(D)	Silence Zone	50	40

Checked By



Authorized By



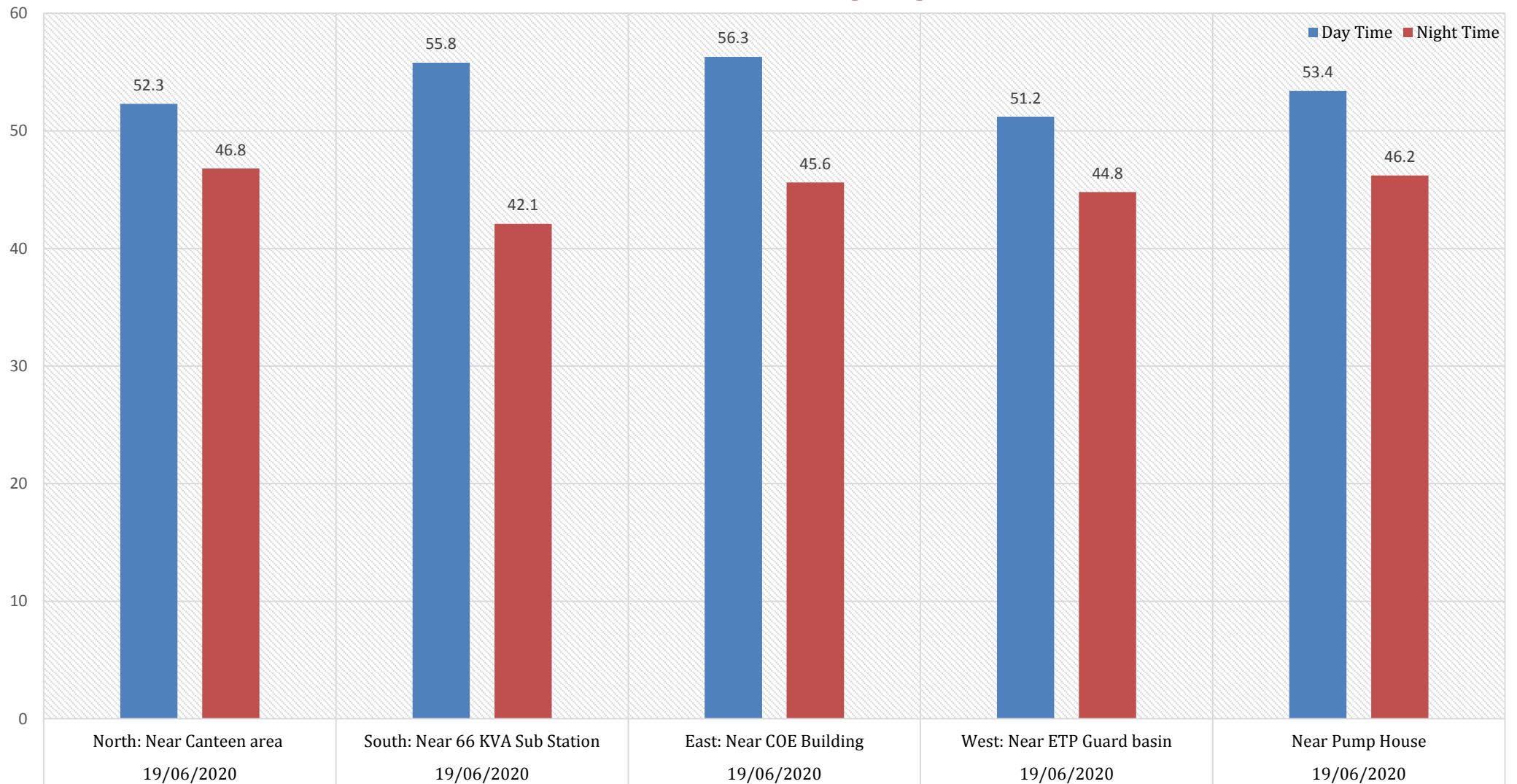
## Graphical Presentation of Noise Level Monitoring Data

For M/s. Mundra Solar PV Limited.

By – UniStar Environment and Research Labs Pvt. Ltd.



### NM: "Noise Level Monitoring Programme"



Environmental Monthly Report  
July'2020



# 1.0 AMBIENT AIR QUALITY MONITORING REPORT



Period: July - 2020

FOR



**M/s.MUNDRA SOLAR PV LIMITED**

**Village Vandh&Tunda, Taluka Mundra,  
Mundra, Kutch 370 435, Gujarat. India.**

**Monitoring Organization**



White House,  
Near G.I.D.C. Office, Char Rasta,  
Vapi-396 195, Gujarat, India.  
Phone : +91 260 2433966 / 2425610  
Email : [response@uerl.in](mailto:response@uerl.in) Website : [www.uerl.in](http://www.uerl.in)

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Laboratory under the EPA-1986 (12.01.2020 to 17.03.2023)

QC-NABET Accredited EIA  
Consultant Organization

GPCB Recognized Environmental  
Auditor (Schedule-II)

ISO 9001:2015  
Certified Company

ISO 45001:2018  
Certified Company

**TEST REPORT**  
**(AMBIENT AIR MONITORING)**

Test Report No.:	URAL/20/07/MSPVL/A-001	Report Issue Date	30/07/2020
Service Request form No.:	UERL/AIR/SRF/07/A-001	Service Request Date	24/07/2020
Sample ID No.:	UERL/AIR/ID/A-20/07/001	Field Data Sheet No.	UERL/AIR/FDS/A-20/07/001
Name & Add. of Customer	<b>M/s. Mundra Solar PV Limited</b>  Village Vandh & Tunda, Taluka Mundra, Mundra, Kutch 370 435, Gujarat. India.		
Dates of Sampling :	24/07/2020	Date of Testing	27/07/2020
Location of Sampling / Monitoring:	<b>Near Canteen Area.</b>		
Sampling Method	<b>IS:5182(Part-14) and IS:5182 (Part-5)</b>		

➤ **Details of Master Instrument Used for Monitoring**

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/25	Respirable Dust Sampler	1744-DTA-2013, 1127-DTJ-2012	19/01/2020	19/01/2021
UERL/AIR/FPS/51	Fine Particulate Sampler	137-DTD-2013	21/04/2019	19/04/2021

➤ **General Sampling / Monitoring Observation as per CPCB Guideline**

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	H	23.50
2.	Flow Rate of PM <sub>10</sub>	m <sup>3</sup> /min	1.30
3.	Volume of Air Sampled for PM <sub>10</sub>	m <sup>3</sup>	1833
4.	Volume of Air Sampled for PM <sub>2.5</sub>	m <sup>3</sup>	23.54

➤ **Test Parameter Results**

Sr. No.	Test Parameter	Unit	Result	Specific Value (As per NAAQMS)
1.	Particulate Matter PM <sub>10</sub>	µg/m <sup>3</sup>	68	<b>100</b>
2.	Particulate Matter PM <sub>2.5</sub>	µg/m <sup>3</sup>	24	<b>60</b>
3.	Sulphur Dioxide	µg/m <sup>3</sup>	11.6	<b>80</b>
4.	Nitrogen Dioxide	µg/m <sup>3</sup>	14.8	<b>80</b>

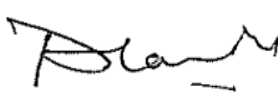
\*\*\*\*\* End of Report \*\*\*\*\*

**Sampling Done By:**



(Chemist) / (Environment Engg.)

**Tested By:**



(Chemist) / (Sr. Chemist)

**Authorized By:**



(Sr. Chemist)

**TEST REPORT**  
**(AMBIENT AIR MONITORING)**

Test Report No.:	URAL/20/07/MSPVL/A-002	Report Issue Date	30/07/2020
Service Request form No.:	UERL/AIR/SRF/07/A-002	Service Request Date	24/07/2020
Sample ID No.:	UERL/AIR/ID/A-20/07/002	Field Data Sheet No.	UERL/AIR/FDS/A-20/07/002
Name & Add. of Customer	<b>M/s. Mundra Solar PV Limited</b>  Village Vandh & Tunda, Taluka Mundra, Mundra, Kutch 370 435, Gujarat. India.		
Dates of Sampling :	24/07/2020	Date of Testing	27/07/2020
Location of Sampling / Monitoring:	<b>Near ETP Guard Basin (MSTPL)</b>		
Sampling Method	<b>IS:5182(Part-14) and IS:5182 (Part-5)</b>		

➤ **Details of Master Instrument Used for Monitoring**

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/27	Respirable Dust Sampler	1751-DTA-2013,1142-DTA-2013	19/01/2020	19/01/2021
UERL/AIR/FPS/42	Fine Particulate Sampler	125-DTD-2013	06/07/2020	07/07/2021

➤ **General Sampling / Monitoring Observation as per CPCB Guideline**

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	H	24.05
2.	Flow Rate of PM <sub>10</sub>	m <sup>3</sup> /min	1.28
3.	Volume of Air Sampled for PM <sub>10</sub>	m <sup>3</sup>	1847.04
4.	Volume of Air Sampled for PM <sub>2.5</sub>	m <sup>3</sup>	24.09

➤ **Test Parameter Results**

Sr. No.	Test Parameter	Unit	Result	Specific Value (As per NAAQMS)
1.	Particulate Matter PM <sub>10</sub>	µg/m <sup>3</sup>	66	<b>100</b>
2.	Particulate Matter PM <sub>2.5</sub>	µg/m <sup>3</sup>	18	<b>60</b>
3.	Sulphur Dioxide	µg/m <sup>3</sup>	14.4	<b>80</b>
4.	Nitrogen Dioxide	µg/m <sup>3</sup>	18.2	<b>80</b>

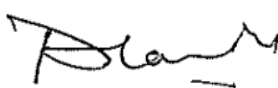
\*\*\*\*\* End of Report \*\*\*\*\*

**Sampling Done By:**



(Chemist) / (Environment Engg.)

**Tested By:**



(Chemist) / (Sr. Chemist)

**Authorized By:**



(Sr. Chemist)

**TEST REPORT**  
**(AMBIENT AIR MONITORING)**

Test Report No.:	URAL/20/07/MSPVL/A-003	Report Issue Date	30/07/2020
Service Request form No.:	UERL/AIR/SRF/07/A-003	Service Request Date	24/07/2020
Sample ID No.:	UERL/AIR/ID/A-20/07/003	Field Data Sheet No.	UERL/AIR/FDS/A-20/07/003
Name & Add. of Customer	<b>M/s. Mundra Solar PV Limited</b>  Village Vandh & Tunda, Taluka Mundra, Mundra, Kutch 370 435, Gujarat. India.		
Dates of Sampling :	24/07/2020	Date of Testing	27/07/2020
Location of Sampling / Monitoring:	<b>Near Occupational Health Center.</b>		
Sampling Method	<b>IS:5182(Part-14) and IS:5182 (Part-5)</b>		

➤ **Details of Master Instrument Used for Monitoring**

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/22	Respirable Dust Sampler	1745-DTB-2013, 1151-DTB-2013	19/01/2020	19/01/2021
UERL/AIR/FPS/22	Fine Particulate Sampler	129-DTB-2013	06/07/2020	07/07/2021

➤ **General Sampling / Monitoring Observation as per CPCB Guideline**

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	H	24.10
2.	Flow Rate of PM <sub>10</sub>	m <sup>3</sup> /min	1.30
3.	Volume of Air Sampled for PM <sub>10</sub>	m <sup>3</sup>	1879.8
4.	Volume of Air Sampled for PM <sub>2.5</sub>	m <sup>3</sup>	24.14

➤ **Test Parameter Results**

Sr. No.	Test Parameter	Unit	Result	Specific Value (As per NAAQMS)
1.	Particulate Matter PM <sub>10</sub>	µg/m <sup>3</sup>	64	<b>100</b>
2.	Particulate Matter PM <sub>2.5</sub>	µg/m <sup>3</sup>	22	<b>60</b>
3.	Sulphur Dioxide	µg/m <sup>3</sup>	16.8	<b>80</b>
4.	Nitrogen Dioxide	µg/m <sup>3</sup>	21.1	<b>80</b>

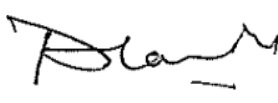
\*\*\*\*\* End of Report \*\*\*\*\*

**Sampling Done By:**



(Chemist) / (Environment Engg.)

**Tested By:**



(Chemist) / (Sr. Chemist)

**Authorized By:**



(Sr. Chemist)

**TEST REPORT**  
**(AMBIENT AIR MONITORING)**

Test Report No.:	URAL/20/07/MSPVL/A-004	Report Issue Date	30/07/2020
Service Request form No.:	UERL/AIR/SRF/07/A-004	Service Request Date	25/07/2020
Sample ID No.:	UERL/AIR/ID/A-20/07/004	Field Data Sheet No.	UERL/AIR/FDS/A-20/07/004
Name & Add. of Customer	<b>M/s. Mundra Solar PV Limited</b>  Village Vandh & Tunda, Taluka Mundra, Mundra, Kutch 370 435, Gujarat. India.		
Dates of Sampling :	25/07/2020	Date of Testing	27/07/2020
Location of Sampling / Monitoring:	<b>Near Village Vandh</b>		
Sampling Method	<b>IS:5182(Part-14) and IS:5182 (Part-5)</b>		

➤ **Details of Master Instrument Used for Monitoring**

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/27	Respirable Dust Sampler	1751-DTA-2013,1142-DTA-2013	19/01/2020	19/01/2021
UERL/AIR/FPS/42	Fine Particulate Sampler	125-DTD-2013	06/07/2020	07/07/2021

➤ **General Sampling / Monitoring Observation as per CPCB Guideline**

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	H	24
2.	Flow Rate of PM <sub>10</sub>	m <sup>3</sup> /min	1.32
3.	Volume of Air Sampled for PM <sub>10</sub>	m <sup>3</sup>	1900.8
4.	Volume of Air Sampled for PM <sub>2.5</sub>	m <sup>3</sup>	24.04

➤ **Test Parameter Results**

Sr. No.	Test Parameter	Unit	Result	Specific Value (As per NAAQMS)
1.	Particulate Matter PM <sub>10</sub>	µg/m <sup>3</sup>	86	<b>100</b>
2.	Particulate Matter PM <sub>2.5</sub>	µg/m <sup>3</sup>	32	<b>60</b>
3.	Sulphur Dioxide	µg/m <sup>3</sup>	18.4	<b>80</b>
4.	Nitrogen Dioxide	µg/m <sup>3</sup>	22.3	<b>80</b>

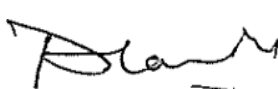
\*\*\*\*\* End of Report \*\*\*\*\*

**Sampling Done By:**



(Chemist) / (Environment Engg.)

**Tested By:**



(Chemist) / (Sr. Chemist)

**Authorized By:**



(Sr. Chemist)

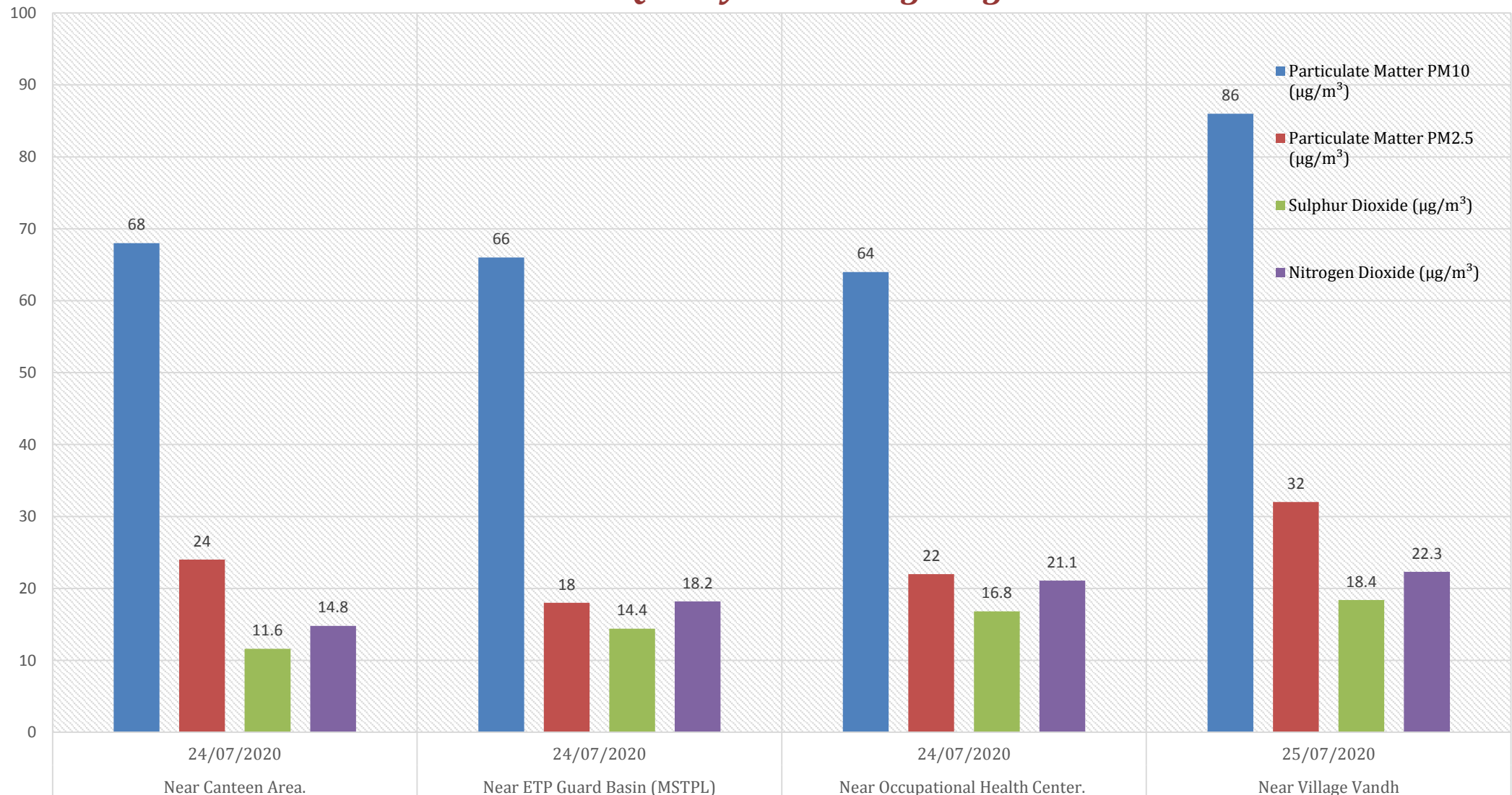
# Graphical Presentation of Ambient Air Quality Data

For M/s. Mundra Solar PV Limited.

By – UniStar Environment and Research Labs Pvt. Ltd.



## Ambient Air Quality Monitoring Programme



# 3.0 NOISE LEVEL MONITORING REPORT



**Period: July - 2020**

**FOR**



**M/s.MUNDRA SOLAR PV LIMITED**

**Village Vandh & Tunda, Taluka Mundra,  
Mundra, Kutch 370 435, Gujarat. India.**

**Monitoring Organization**



White House,  
Near G.I.D.C. Office, Char Rasta,  
Vapi-396 195, Gujarat, India.  
Phone : +91 260 2433966 / 2425610  
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ISO 9001:2015  
Certified Company

ISO 45001:2018  
Certified Company



### NOISE LEVEL MONITORING REPORT

<b>Test Report No.:</b>	<b>UERL/20/07/MSPVL/N-001</b>	<b>Date Of Report:</b>	<b>30/07/2020</b>
<b>Name &amp; Add. Of Industries</b>	<b>M/s. Mundra Solar PV Limited</b> Village Vandh &Tunda, Taluka Mundra, Mundra, Kutch 370 435, Gujarat. India.		

➤ **Details of Instrument Used for Monitoring.**

<b>Instrument Id No.</b>	<b>Instrument Name</b>	<b>Model Number</b>	<b>Cali. Date</b>	<b>Next Cali. Date</b>
UERL/AIR/SLM/Q630838	Sound Level Meter	SL 4023 SD	31/01/2020	30/01/2021
<b>Sampling Method.</b>	CPCB Guideline			

Date of Monitoring : **25/07/2020**

### Result

<b>Sr. No.</b>	<b>Location within company premises</b>	<b>Noise Level dB(A)</b>		<b>Permissible Limit CPCB</b>	
		<b>Day Time</b>	<b>Night Time</b>	<b>Day Time</b>	<b>Night Time</b>
1.	North: Near Canteen area	56.8	47.2	<75 dB(A)	<70 dB(A)
2.	South: Near 66 KVA Sub Station	48.6	42.1	<75 dB(A)	<70 dB(A)
3.	East: Near COE Building	55.2	46.6	<75 dB(A)	<70 dB(A)
4.	West: Near ETP Guard basin	52.6	44.8	<75 dB(A)	<70 dB(A)
5.	Near Pump House	64.8	56.3	<75 dB(A)	<70 dB(A)

Note: Ambient Air Quality Standards in respected of Noise as per CPCB.

<b>Area Code</b>	<b>Category of Area/Zone</b>	<b>Limit in dB (A) Leq</b>	
		<b>Day Time (6:00 am to 10:00 pm)</b>	<b>Night Time (10:00 pm to 6:00 am)</b>
(A)	Industrial area	75	70
(B)	Commercial area	65	55
(C)	Residential area	55	45
(D)	Silence Zone	50	40

\*\*\*\*\* End of Report \*\*\*\*\*

Checked By



Authorized By





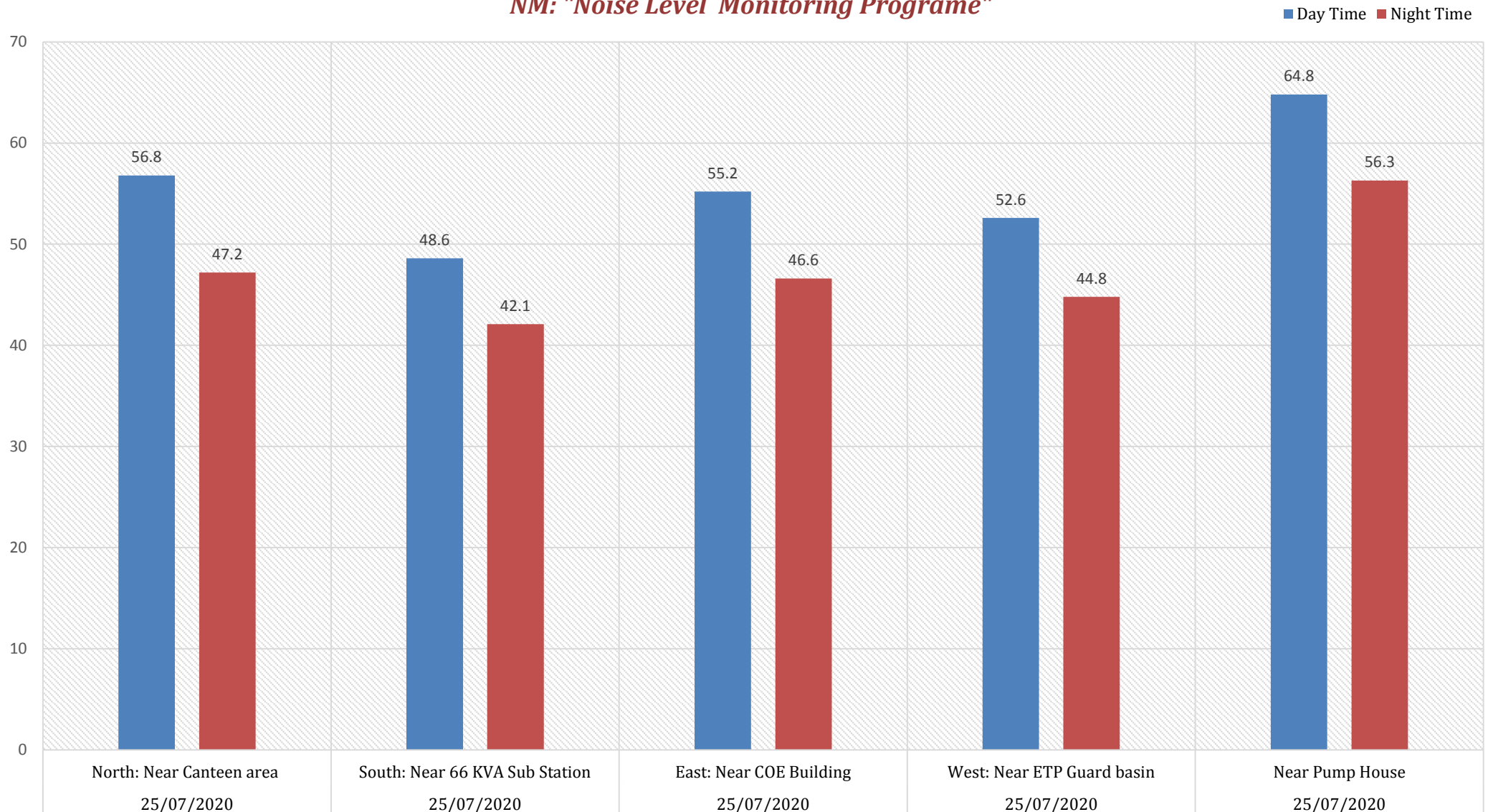
# Graphical Presentation of Noise Level Monitoring Data

For M/s. Mundra Solar PV Limited.

By – UniStar Environment and Research Labs Pvt. Ltd.



## NM: "Noise Level Monitoring Programme"



Environmental Monthly Report  
August'2020

# 1.0 AMBIENT AIR QUALITY MONITORING REPORT



**Period: August - 2020**

**FOR**



**M/s.MUNDRA SOLAR PV LIMITED**

**Village Vandh&Tunda, Taluka Mundra,  
Mundra, Kutch 370 435, Gujarat. India.**

**Monitoring Organization**



White House,  
Near G.I.D.C. Office, Char Rasta,  
Vapi-396 195, Gujarat, India.  
Phone : +91 260 2433966 / 2425610  
Email : [response@uerl.in](mailto:response@uerl.in) Website : [www.uerl.in](http://www.uerl.in)

MoEF&CC (GOI) Recognized Environmental  
Laboratory under the EPA-1986 (12.01.2020 to 17.03.2023)

QC-NABET Accredited EIA  
Consultant Organization

GPCB Recognized Environmental  
Auditor (Schedule-II)

ISO 9001:2015  
Certified Company

ISO 45001:2018  
Certified Company

**TEST REPORT**  
**(AMBIENT AIR MONITORING)**

Test Report No.:	URAL/20/08/MSPVL/A-001	Report Issue Date	28/08/2020
Service Request form No.:	UERL/AIR/SRF/08/A-001	Service Request Date	19/08/2020
Sample ID No.:	UERL/AIR/ID/A-20/08/001	Field Data Sheet No.	UERL/AIR/FDS/A-20/08/001
Name & Add. of Customer	<b>M/s. Mundra Solar PV Limited</b>  Village Vandh & Tunda, Taluka Mundra, Mundra, Kutch 370 435, Gujarat. India.		
Dates of Sampling :	19/08/2020	Date of Testing	21/08/2020
Location of Sampling / Monitoring:	<b>Near Canteen Area.</b>		
Sampling Method	<b>IS:5182(Part-14) and IS:5182 (Part-5)</b>		

➤ **Details of Master Instrument Used for Monitoring**

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/25	Respirable Dust Sampler	1744-DTA-2013, 1127-DTJ-2012	19/01/2020	19/01/2021
UERL/AIR/FPS/51	Fine Particulate Sampler	137-DTD-2013	21/04/2019	19/04/2021

➤ **General Sampling / Monitoring Observation as per CPCB Guideline**

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	H	24
2.	Flow Rate of PM <sub>10</sub>	m <sup>3</sup> /min	1.28
3.	Volume of Air Sampled for PM <sub>10</sub>	m <sup>3</sup>	1843.2
4.	Volume of Air Sampled for PM <sub>2.5</sub>	m <sup>3</sup>	24.04

➤ **Test Parameter Results**

Sr. No.	Test Parameter	Unit	Result	Specific Value (As per NAAQMS)
1.	Particulate Matter PM <sub>10</sub>	µg/m <sup>3</sup>	64	<b>100</b>
2.	Particulate Matter PM <sub>2.5</sub>	µg/m <sup>3</sup>	22	<b>60</b>
3.	Sulphur Dioxide	µg/m <sup>3</sup>	10.4	<b>80</b>
4.	Nitrogen Dioxide	µg/m <sup>3</sup>	12.1	<b>80</b>

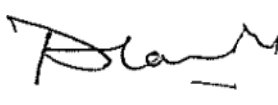
\*\*\*\*\* End of Report \*\*\*\*\*

**Sampling Done By:**



(Chemist) / (Environment Engg.)

**Tested By:**



(Chemist) / (Sr. Chemist)

**Authorized By:**



(Sr. Chemist)

**TEST REPORT**  
**(AMBIENT AIR MONITORING)**

Test Report No.:	URAL/20/08/MSPVL/A-002	Report Issue Date	28/08/2020
Service Request form No.:	UERL/AIR/SRF/08/A-002	Service Request Date	19/08/2020
Sample ID No.:	UERL/AIR/ID/A-20/08/002	Field Data Sheet No.	UERL/AIR/FDS/A-20/08/002
Name & Add. of Customer	<b>M/s. Mundra Solar PV Limited</b>  Village Vandh & Tunda, Taluka Mundra, Mundra, Kutch 370 435, Gujarat. India.		
Dates of Sampling :	19/08/2020	Date of Testing	21/08/2020
Location of Sampling / Monitoring:	<b>Near ETP Guard Basin (MSTPL)</b>		
Sampling Method	<b>IS:5182(Part-14) and IS:5182 (Part-5)</b>		

➤ **Details of Master Instrument Used for Monitoring**

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/27	Respirable Dust Sampler	1751-DTA-2013,1142-DTA-2013	19/01/2020	19/01/2021
UERL/AIR/FPS/42	Fine Particulate Sampler	125-DTD-2013	06/07/2020	07/07/2021

➤ **General Sampling / Monitoring Observation as per CPCB Guideline**

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	H	23.52
2.	Flow Rate of PM <sub>10</sub>	m <sup>3</sup> /min	1.33
3.	Volume of Air Sampled for PM <sub>10</sub>	m <sup>3</sup>	1876.89
4.	Volume of Air Sampled for PM <sub>2.5</sub>	m <sup>3</sup>	23.56

➤ **Test Parameter Results**

Sr. No.	Test Parameter	Unit	Result	Specific Value (As per NAAQMS)
1.	Particulate Matter PM <sub>10</sub>	µg/m <sup>3</sup>	56	<b>100</b>
2.	Particulate Matter PM <sub>2.5</sub>	µg/m <sup>3</sup>	14	<b>60</b>
3.	Sulphur Dioxide	µg/m <sup>3</sup>	12.3	<b>80</b>
4.	Nitrogen Dioxide	µg/m <sup>3</sup>	14.2	<b>80</b>

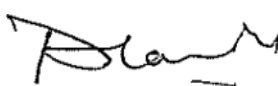
\*\*\*\*\* End of Report \*\*\*\*\*

**Sampling Done By:**



(Chemist) / (Environment Engg.)

**Tested By:**



(Chemist) / (Sr. Chemist)

**Authorized By:**



(Sr. Chemist)

**TEST REPORT**  
**(AMBIENT AIR MONITORING)**

Test Report No.:	URAL/20/08/MSPVL/A-003	Report Issue Date	28/08/2020
Service Request form No.:	UERL/AIR/SRF/08/A-003	Service Request Date	19/08/2020
Sample ID No.:	UERL/AIR/ID/A-20/08/003	Field Data Sheet No.	UERL/AIR/FDS/A-20/08/003
Name & Add. of Customer	<b>M/s. Mundra Solar PV Limited</b>  Village Vandh & Tunda, Taluka Mundra, Mundra, Kutch 370 435, Gujarat. India.		
Dates of Sampling :	19/08/2020	Date of Testing	21/08/2020
Location of Sampling / Monitoring:	<b>Near Occupational Health Center.</b>		
Sampling Method	<b>IS:5182(Part-14) and IS:5182 (Part-5)</b>		

➤ **Details of Master Instrument Used for Monitoring**

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/22	Respirable Dust Sampler	1745-DTB-2013, 1151-DTB-2013	19/01/2020	19/01/2021
UERL/AIR/FPS/22	Fine Particulate Sampler	129-DTB-2013	06/07/2020	07/07/2021

➤ **General Sampling / Monitoring Observation as per CPCB Guideline**

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	H	24.10
2.	Flow Rate of PM <sub>10</sub>	m <sup>3</sup> /min	1.26
3.	Volume of Air Sampled for PM <sub>10</sub>	m <sup>3</sup>	1821.96
4.	Volume of Air Sampled for PM <sub>2.5</sub>	m <sup>3</sup>	24.14

➤ **Test Parameter Results**

Sr. No.	Test Parameter	Unit	Result	Specific Value (As per NAAQMS)
1.	Particulate Matter PM <sub>10</sub>	µg/m <sup>3</sup>	52	<b>100</b>
2.	Particulate Matter PM <sub>2.5</sub>	µg/m <sup>3</sup>	12	<b>60</b>
3.	Sulphur Dioxide	µg/m <sup>3</sup>	8.4	<b>80</b>
4.	Nitrogen Dioxide	µg/m <sup>3</sup>	10.3	<b>80</b>

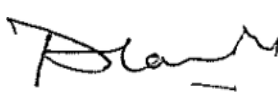
\*\*\*\*\* End of Report \*\*\*\*\*

**Sampling Done By:**



(Chemist) / (Environment Engg.)

**Tested By:**



(Chemist) / (Sr. Chemist)

**Authorized By:**



(Sr. Chemist)

**TEST REPORT**  
**(AMBIENT AIR MONITORING)**

Test Report No.:	URAL/20/08/MSPVL/A-004	Report Issue Date	28/08/2020
Service Request form No.:	UERL/AIR/SRF/08/A-004	Service Request Date	21/08/2020
Sample ID No.:	UERL/AIR/ID/A-20/08/004	Field Data Sheet No.	UERL/AIR/FDS/A-20/08/004
Name & Add. of Customer	<b>M/s. Mundra Solar PV Limited</b>  Village Vandh & Tunda, Taluka Mundra, Mundra, Kutch 370 435, Gujarat. India.		
Dates of Sampling :	21/08/2020	Date of Testing	24/08/2020
Location of Sampling / Monitoring:	<b>Near Village Vandh</b>		
Sampling Method	<b>IS:5182(Part-14) and IS:5182 (Part-5)</b>		

➤ **Details of Master Instrument Used for Monitoring**

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/27	Respirable Dust Sampler	1751-DTA-2013,1142-DTA-2013	19/01/2020	19/01/2021
UERL/AIR/FPS/42	Fine Particulate Sampler	125-DTD-2013	06/07/2020	07/07/2021

➤ **General Sampling / Monitoring Observation as per CPCB Guideline**

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	H	24
2.	Flow Rate of PM <sub>10</sub>	m <sup>3</sup> /min	1.30
3.	Volume of Air Sampled for PM <sub>10</sub>	m <sup>3</sup>	1872
4.	Volume of Air Sampled for PM <sub>2.5</sub>	m <sup>3</sup>	24.04

➤ **Test Parameter Results**

Sr. No.	Test Parameter	Unit	Result	Specific Value (As per NAAQMS)
1.	Particulate Matter PM <sub>10</sub>	µg/m <sup>3</sup>	76	<b>100</b>
2.	Particulate Matter PM <sub>2.5</sub>	µg/m <sup>3</sup>	24	<b>60</b>
3.	Sulphur Dioxide	µg/m <sup>3</sup>	11.1	<b>80</b>
4.	Nitrogen Dioxide	µg/m <sup>3</sup>	14.3	<b>80</b>

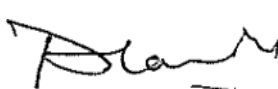
\*\*\*\*\* End of Report \*\*\*\*\*

**Sampling Done By:**



(Chemist) / (Environment Engg.)

**Tested By:**



(Chemist) / (Sr. Chemist)

**Authorized By:**



(Sr. Chemist)

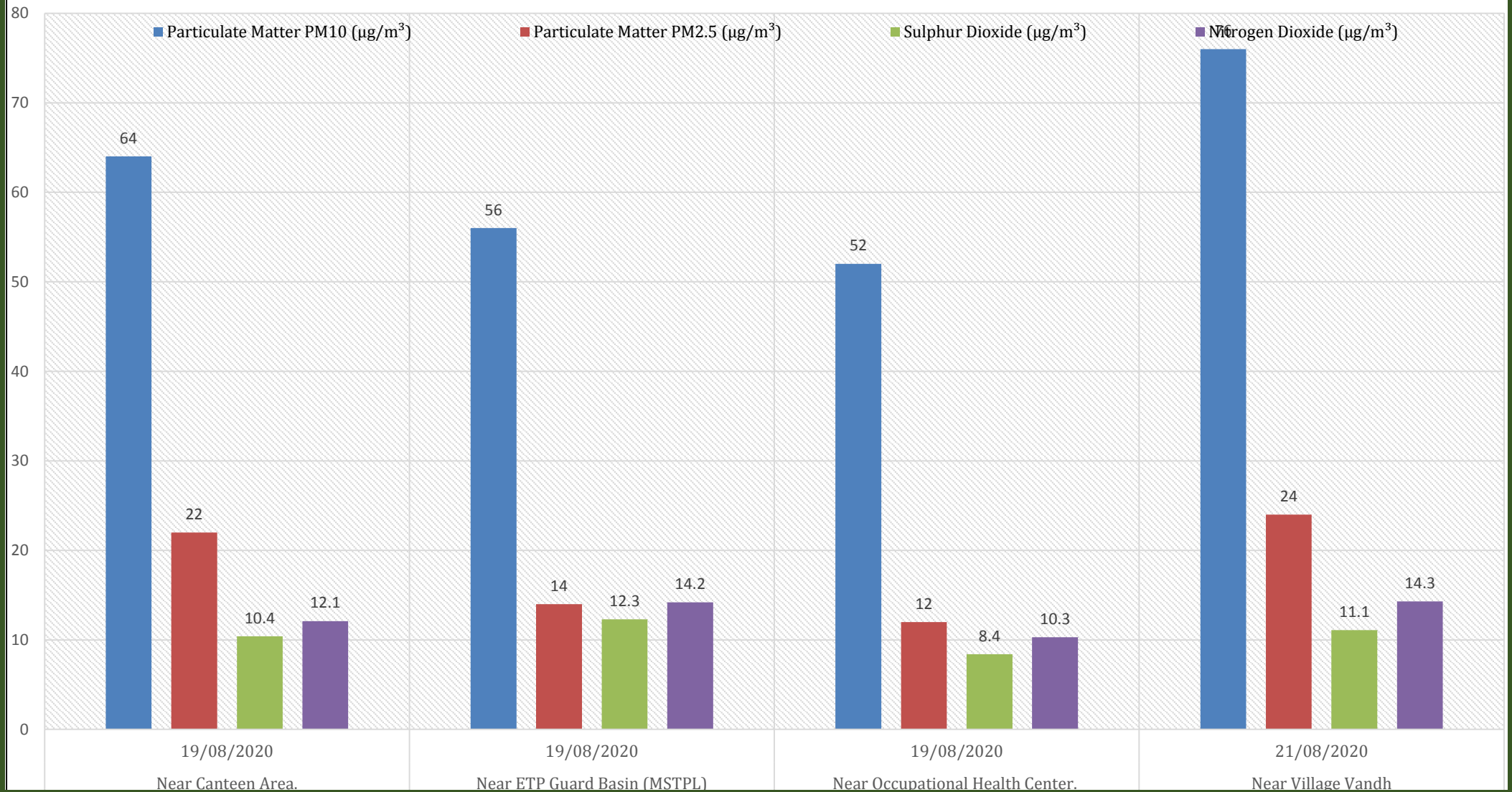
# Graphical Presentation of Ambient Air Quality Data

For M/s. Mundra Solar PV Limited.

By – UniStar Environment and Research Labs Pvt. Ltd.



## Ambient Air Quality Monitoring Programme





# 3.0 NOISE LEVEL MONITORING REPORT



**Period: August - 2020**

**FOR**



**M/s.MUNDRA SOLAR PV LIMITED**

**Village Vandh & Tunda, Taluka Mundra,  
Mundra, Kutch 370 435, Gujarat. India.**

**Monitoring Organization**



White House,  
Near G.I.D.C. Office, Char Rasta,  
Vapi-396 195, Gujarat, India.  
Phone : +91 260 2433966 / 2425610  
Email : [response@uerl.in](mailto:response@uerl.in) Website : [www.uerl.in](http://www.uerl.in)

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GPCB Recognized Environmental  
Auditor (Schedule-II)

ISO 9001:2015  
Certified Company

ISO 45001:2018  
Certified Company

### NOISE LEVEL MONITORING REPORT

Test Report No.:	UERL/20/08/MSPVL/N-001	Date Of Report:	28/08/2020
Name & Add. Of Industries	M/s. Mundra Solar PV Limited Village Vandh & Tunda, Taluka Mundra, Mundra, Kutch 370 435, Gujarat. India.		

➤ **Details of Instrument Used for Monitoring.**

Instrument Id No.	Instrument Name	Model Number	Cali. Date	Next Cali. Date
UERL/AIR/SLM/Q630838	Sound Level Meter	SL 4023 SD	31/01/2020	30/01/2021
Sampling Method.	CPCB Guideline			

Date of Monitoring : 19/08/2020

### Result

Sr. No.	Location within company premises	Noise Level dB(A)		Permissible Limit CPCB	
		Day Time	Night Time	Day Time	Night Time
1.	North: Near Canteen area	42.4	41.8	<75 dB(A)	<70 dB(A)
2.	South: Near 66 KVA Sub Station	44.8	42.6	<75 dB(A)	<70 dB(A)
3.	East: Near COE Building	46.3	44.7	<75 dB(A)	<70 dB(A)
4.	West: Near ETP Guard basin	51.2	42.4	<75 dB(A)	<70 dB(A)

**Note:** Ambient Air Quality Standards in respected of Noise as per CPCB.

Area Code	Category of Area/Zone	Limit in dB (A) Leq	
		Day Time (6:00 am to 10:00 pm)	Night Time (10:00 pm to 6:00 am)
(A)	Industrial area	75	70
(B)	Commercial area	65	55
(C)	Residential area	55	45
(D)	Silence Zone	50	40

\*\*\*\*\* End of Report \*\*\*\*\*

Environmental Monthly Report  
September'2020

# 1.0 AMBIENT AIR QUALITY MONITORING REPORT



**Period: September - 2020**

**FOR**



**M/s.MUNDRA SOLAR PV LIMITED**

**Village Vandh&Tunda, Taluka Mundra,  
Mundra, Kutch 370 435, Gujarat. India.**

**Monitoring Organization**



White House,  
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ISO 45001:2018  
Certified Company

**TEST REPORT**  
**(AMBIENT AIR MONITORING)**

Test Report No.:	URAL/20/09/MSPVL/A-001	Report Issue Date	16/09/2020
Service Request form No.:	UERL/AIR/SRF/09/A-001	Service Request Date	11/09/2020
Sample ID No.:	UERL/AIR/SRF/09/A-/001	Field Data Sheet No.	UERL/AIR/FDS/A-20/09/001
Name & Add. of Customer	<b>M/s. Mundra Solar PV Limited</b>  Village Vandh & Tunda, Taluka Mundra, Mundra, Kutch 370 435, Gujarat. India.		
Dates of Sampling :	11/09/2020	Date of Testing	14/09/2020
Location of Sampling / Monitoring:	<b>Near Canteen Area.</b>		
Sampling Method	<b>IS:5182(Part-14) and IS:5182 (Part-5)</b>		

➤ **Details of Master Instrument Used for Monitoring**

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/25	Respirable Dust Sampler	1744-DTA-2013, 1127-DTJ-2012	19/01/2020	19/01/2021
UERL/AIR/FPS/51	Fine Particulate Sampler	137-DTD-2013	21/04/2019	19/04/2021

➤ **General Sampling / Monitoring Observation as per CPCB Guideline**

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	H	24
2.	Flow Rate of PM <sub>10</sub>	m <sup>3</sup> /min	1.32
3.	Volume of Air Sampled for PM <sub>10</sub>	m <sup>3</sup>	1900.8
4.	Volume of Air Sampled for PM <sub>2.5</sub>	m <sup>3</sup>	24.04

➤ **Test Parameter Results**

Sr. No.	Test Parameter	Unit	Result	Specific Value (As per NAAQMS)
1.	Particulate Matter PM <sub>10</sub>	µg/m <sup>3</sup>	58	<b>100</b>
2.	Particulate Matter PM <sub>2.5</sub>	µg/m <sup>3</sup>	16	<b>60</b>
3.	Sulphur Dioxide	µg/m <sup>3</sup>	11.4	<b>80</b>
4.	Nitrogen Dioxide	µg/m <sup>3</sup>	14.6	<b>80</b>

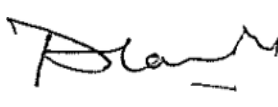
\*\*\*\*\* End of Report \*\*\*\*\*

**Sampling Done By:**



(Chemist) / (Environment Engg.)

**Tested By:**



(Chemist) / (Sr. Chemist)

**Authorized By:**



(Sr. Chemist)

**TEST REPORT**  
**(AMBIENT AIR MONITORING)**

Test Report No.:	URAL/20/09/MSPVL/A-002	Report Issue Date	16/09/2020
Service Request form No.:	UERL/AIR/SRF/09/A-002	Service Request Date	11/09/2020
Sample ID No.:	UERL/AIR/SRF/09/A-002	Field Data Sheet No.	UERL/AIR/FDS/A-20/09/002
Name & Add. of Customer	<b>M/s. Mundra Solar PV Limited</b>  Village Vandh & Tunda, Taluka Mundra, Mundra, Kutch 370 435, Gujarat. India.		
Dates of Sampling :	11/09/2020	Date of Testing	14/09/2020
Location of Sampling / Monitoring:	<b>Near ETP Guard Basin (MSTPL)</b>		
Sampling Method	<b>IS:5182(Part-14) and IS:5182 (Part-5)</b>		

➤ **Details of Master Instrument Used for Monitoring**

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/27	Respirable Dust Sampler	1751-DTA-2013,1142-DTA-2013	19/01/2020	19/01/2021
UERL/AIR/FPS/42	Fine Particulate Sampler	125-DTD-2013	06/07/2020	07/07/2021

➤ **General Sampling / Monitoring Observation as per CPCB Guideline**

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	H	24.10
2.	Flow Rate of PM <sub>10</sub>	m <sup>3</sup> /min	1.28
3.	Volume of Air Sampled for PM <sub>10</sub>	m <sup>3</sup>	1850.88
4.	Volume of Air Sampled for PM <sub>2.5</sub>	m <sup>3</sup>	24.14

➤ **Test Parameter Results**

Sr. No.	Test Parameter	Unit	Result	Specific Value (As per NAAQMS)
1.	Particulate Matter PM <sub>10</sub>	µg/m <sup>3</sup>	62	<b>100</b>
2.	Particulate Matter PM <sub>2.5</sub>	µg/m <sup>3</sup>	18	<b>60</b>
3.	Sulphur Dioxide	µg/m <sup>3</sup>	12.3	<b>80</b>
4.	Nitrogen Dioxide	µg/m <sup>3</sup>	16.4	<b>80</b>

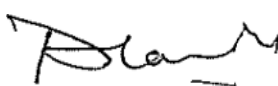
\*\*\*\*\* End of Report \*\*\*\*\*

**Sampling Done By:**



(Chemist) / (Environment Engg.)

**Tested By:**



(Chemist) / (Sr. Chemist)

**Authorized By:**



(Sr. Chemist)

**TEST REPORT**  
**(AMBIENT AIR MONITORING)**

Test Report No.:	URAL/20/09/MSPVL/A-003	Report Issue Date	16/09/2020
Service Request form No.:	UERL/AIR/SRF/09/A-003	Service Request Date	11/09/2020
Sample ID No.:	UERL/AIR/SRF/09/A-003	Field Data Sheet No.	UERL/AIR/FDS/A-20/09/003
Name & Add. of Customer	<b>M/s. Mundra Solar PV Limited</b>  Village Vandh & Tunda, Taluka Mundra, Mundra, Kutch 370 435, Gujarat. India.		
Dates of Sampling :	11/09/2020	Date of Testing	14/09/2020
Location of Sampling / Monitoring:	<b>Near Occupational Health Center.</b>		
Sampling Method	<b>IS:5182(Part-14) and IS:5182 (Part-5)</b>		

➤ **Details of Master Instrument Used for Monitoring**

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/22	Respirable Dust Sampler	1745-DTB-2013, 1151-DTB-2013	19/01/2020	19/01/2021
UERL/AIR/FPS/22	Fine Particulate Sampler	129-DTB-2013	06/07/2020	07/07/2021

➤ **General Sampling / Monitoring Observation as per CPCB Guideline**

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	H	24
2.	Flow Rate of PM <sub>10</sub>	m <sup>3</sup> /min	1.33
3.	Volume of Air Sampled for PM <sub>10</sub>	m <sup>3</sup>	1915.2
4.	Volume of Air Sampled for PM <sub>2.5</sub>	m <sup>3</sup>	24.04

➤ **Test Parameter Results**

Sr. No.	Test Parameter	Unit	Result	Specific Value (As per NAAQMS)
1.	Particulate Matter PM <sub>10</sub>	µg/m <sup>3</sup>	46	<b>100</b>
2.	Particulate Matter PM <sub>2.5</sub>	µg/m <sup>3</sup>	14	<b>60</b>
3.	Sulphur Dioxide	µg/m <sup>3</sup>	11.3	<b>80</b>
4.	Nitrogen Dioxide	µg/m <sup>3</sup>	14.8	<b>80</b>

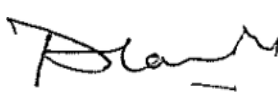
\*\*\*\*\* End of Report \*\*\*\*\*

**Sampling Done By:**



(Chemist) / (Environment Engg.)

**Tested By:**



(Chemist) / (Sr. Chemist)

**Authorized By:**



(Sr. Chemist)



**TEST REPORT**  
**(AMBIENT AIR MONITORING)**

Test Report No.:	URAL/20/09/MSPVL/A-004	Report Issue Date	18/09/2020
Service Request form No.:	UERL/AIR/SRF/09/A-004	Service Request Date	12/09/2020
Sample ID No.:	UERL/AIR/SRF/09/A-004	Field Data Sheet No.	UERL/AIR/FDS/A-20/09/004
Name & Add. of Customer	<b>M/s. Mundra Solar PV Limited</b>  Village Vandh & Tunda, Taluka Mundra, Mundra, Kutch 370 435, Gujarat. India.		
Dates of Sampling :	12/09/2020	Date of Testing	15/09/2020
Location of Sampling / Monitoring:	<b>Near Village Vandh</b>		
Sampling Method	<b>IS:5182(Part-14) and IS:5182 (Part-5)</b>		

➤ **Details of Master Instrument Used for Monitoring**

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/27	Respirable Dust Sampler	1751-DTA-2013,1142-DTA-2013	19/01/2020	19/01/2021
UERL/AIR/FPS/42	Fine Particulate Sampler	125-DTD-2013	06/07/2020	07/07/2021

➤ **General Sampling / Monitoring Observation as per CPCB Guideline**

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	H	24
2.	Flow Rate of PM <sub>10</sub>	m <sup>3</sup> /min	1.26
3.	Volume of Air Sampled for PM <sub>10</sub>	m <sup>3</sup>	1814.4
4.	Volume of Air Sampled for PM <sub>2.5</sub>	m <sup>3</sup>	24.04

➤ **Test Parameter Results**

Sr. No.	Test Parameter	Unit	Result	Specific Value (As per NAAQMS)
1.	Particulate Matter PM <sub>10</sub>	µg/m <sup>3</sup>	81	<b>100</b>
2.	Particulate Matter PM <sub>2.5</sub>	µg/m <sup>3</sup>	26	<b>60</b>
3.	Sulphur Dioxide	µg/m <sup>3</sup>	14.3	<b>80</b>
4.	Nitrogen Dioxide	µg/m <sup>3</sup>	18.1	<b>80</b>

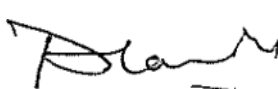
\*\*\*\*\* End of Report \*\*\*\*\*

**Sampling Done By:**



(Chemist) / (Environment Engg.)

**Tested By:**



(Chemist) / (Sr. Chemist)

**Authorized By:**



(Sr. Chemist)



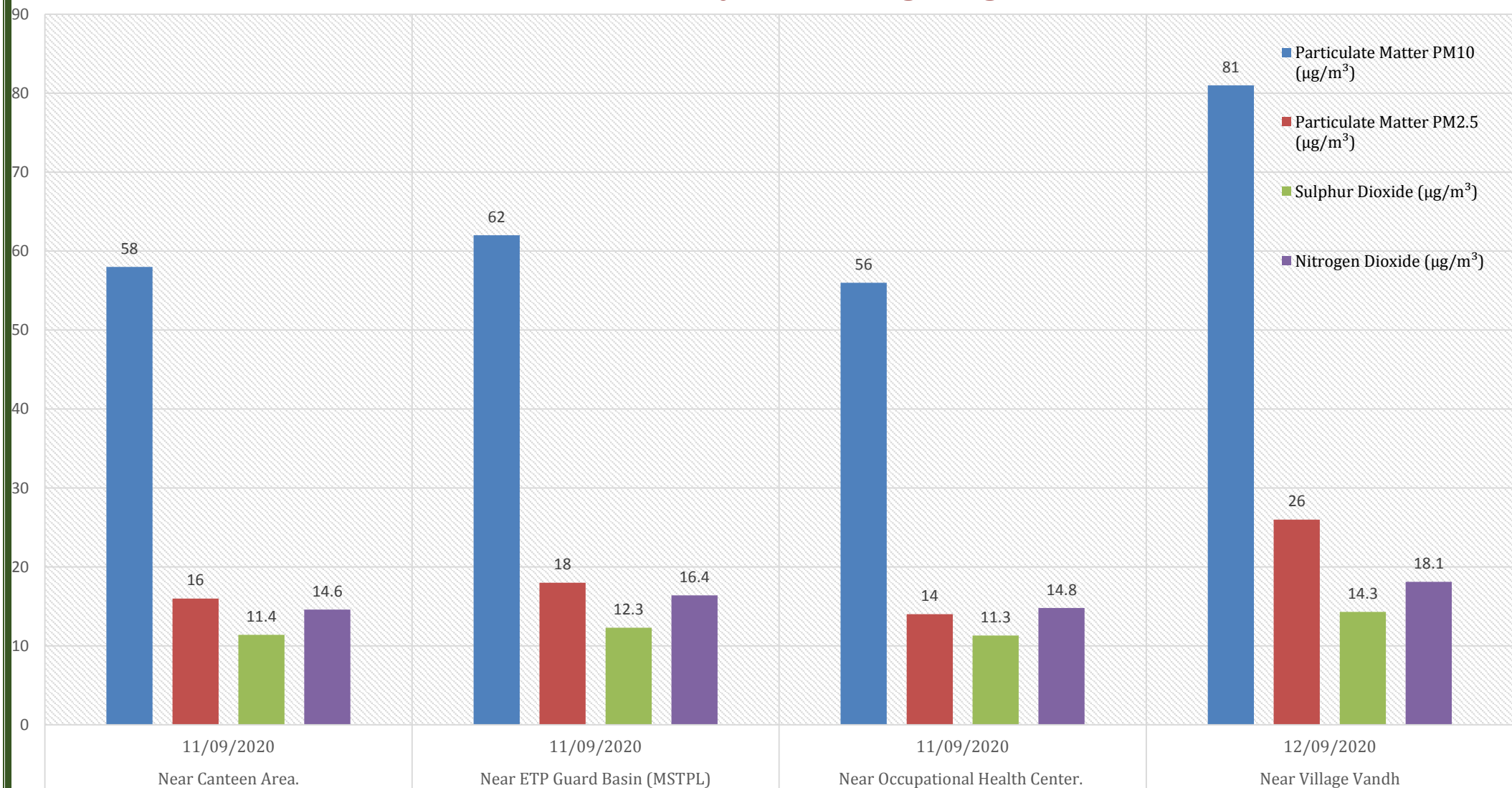
## Graphical Presentation of Ambient Air Quality Data

For M/s. Mundra Solar PV Limited.

By – UniStar Environment and Research Labs Pvt. Ltd.

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### Ambient Air Quality Monitoring Programme



# 3.0 NOISE LEVEL MONITORING REPORT



**Period: September - 2020**

**FOR**



**M/s.MUNDRA SOLAR PV LIMITED**

**Village Vandh & Tunda, Taluka Mundra,  
Mundra, Kutch 370 435, Gujarat. India.**

**Monitoring Organization**



White House,  
Near G.I.D.C. Office, Char Rasta,  
Vapi-396 195, Gujarat, India.  
Phone : +91 260 2433966 / 2425610  
Email : [response@uerl.in](mailto:response@uerl.in) Website : [www.uerl.in](http://www.uerl.in)

MoEF&CC (GOI) Recognized Environmental  
Laboratory under the EPA-1986 (12.01.2020 to 17.03.2023)

QCI-NABET Accredited EIA  
Consultant Organization

GPCB Recognized Environmental  
Auditor (Schedule-II)

ISO 9001:2015  
Certified Company

ISO 45001:2018  
Certified Company

### NOISE LEVEL MONITORING REPORT

Test Report No.:	UERL/20/09/MSPVL/N-001	Date Of Report:	18/09/2020
Name & Add. Of Industries	<b>M/s. Mundra Solar PV Limited</b>  Village Vandh & Tunda, Taluka Mundra, Mundra, Kutch 370 435, Gujarat. India.		

➤ **Details of Instrument Used for Monitoring.**

Instrument Id No.	Instrument Name	Model Number	Cali. Date	Next Cali. Date
UERL/AIR/SLM/Q630838	Sound Level Meter	SL 4023 SD	31/01/2020	30/01/2021
Sampling Method.	CPCB Guideline			

Date of Monitoring : 12/09/2020

#### Result

Sr. No.	Location within company premises	Noise Level dB(A)		Permissible Limit CPCB	
		Day Time	Night Time	Day Time	Night Time
1.	North: Near Canteen area	61.2	48.6	<75 dB(A)	<70 dB(A)
2.	South: Near 66 KVA Sub Station	67.4	56.7	<75 dB(A)	<70 dB(A)
3.	East: Near COE Building	62.6	44.2	<75 dB(A)	<70 dB(A)
4.	West: Near ETP Guard basin	66.3	51.6	<75 dB(A)	<70 dB(A)

**Note:** Ambient Air Quality Standards in respected of Noise as per CPCB.

Area Code	Category of Area/Zone	Limit in dB (A) Leq	
		Day Time (6:00 am to 10:00 pm)	Night Time (10:00 pm to 6:00 am)
(A)	Industrial area	75	70
(B)	Commercial area	65	55
(C)	Residential area	55	45
(D)	Silence Zone	50	40

\*\*\*\*\* End of Report \*\*\*\*\*

Sampling Done By:



(Chemist) / (Environment Engg.)

Authorized By:



(Sr. Chemist)

### NOISE LEVEL MONITORING REPORT

Test Report No.:	UERL/20/09/MSPVL/N-002	Date Of Report:	18/09/2020
Name & Add. Of Industries	<b>M/s. Mundra Solar PV Limited</b> Village Vandh & Tunda, Taluka Mundra, Mundra, Kutch 370 435, Gujarat. India.		

➤ **Details of Instrument Used for Monitoring.**

Instrument Id No.	Instrument Name	Model Number	Cali. Date	Next Cali. Date
UERL/AIR/SLM/Q630838	Sound Level Meter	SL 4023 SD	31/01/2020	30/01/2021
Sampling Method.	CPCB Guideline			

Date of Monitoring : 12/09/2020

#### Result

Sr. No.	Location within company premises	Noise Level	Permissible Limit
		Day Time	
1.	Near Pump House	72.4	<85 dB(A)
2.	Near MSPVL STP Inlet Water Pump	82.1	<85 dB(A)
3.	Near D.G Set-1	81.7	<85 dB(A)
4.	Near D.G Set-2	82.5	<85 dB(A)

**Note:** Permissible exposure in cases of continuous noise as per Model Factories Rules 120 (MFR 120) under Section 87.

Sr.No.	Total time of exposure (continuous short term exposures)	Sound pressure level in or a number of dB(A) per day, in hours
(1)	8 hrs.	85
(2)	6 hrs.	87
(3)	4 hrs.	90
(4)	3 hrs.	92
(5)	1 ½ hrs.	97
(6)	1 hrs.	100
(7)	¾ hrs.	102
(8)	½ hrs.	105
(9)	¼ hrs.	110

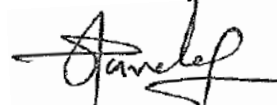
\*\*\*\*\* End of Report \*\*\*\*\*

Sampling Done By:



(Chemist) / (Environment Engg.)

Authorized By:



(Sr. Chemist)

### NOISE LEVEL MONITORING REPORT

Test Report No.:	UERL/20/08/MSPVL/N-002	Date Of Report:	28/08/2020
Name & Add. Of Industries	M/s. Mundra Solar PV Limited Village Vandh & Tunda, Taluka Mundra, Mundra, Kutch 370 435, Gujarat. India.		

➤ **Details of Instrument Used for Monitoring.**

Instrument Id No.	Instrument Name	Model Number	Cali. Date	Next Cali. Date
UERL/AIR/SLM/Q630838	Sound Level Meter	SL 4023 SD	31/01/2020	30/01/2021
Sampling Method.	CPCB Guideline			

Date of Monitoring : 19/08/2020

#### Result

Sr. No.	Location within company premises	Noise Level	Permissible Limit
		Day Time	
1.	Near Pump House	56.3	<85 dB(A)
2.	Near Compressor Area	78.4	<85 dB(A)
3.	Near Module Line-4	82.3	<85 dB(A)
4.	PECVD Area Bay-2	81.2	<85 dB(A)

**Note:** Permissible exposure in cases of continuous noise as per Model Factories Rules 120 (MFR 120) under Section 87.

Sr.No.	Total time of exposure (continuous short term exposures)	Sound pressure level in or a number of dB(A) per day, in hours
(1)	8 hrs.	85
(2)	6 hrs.	87
(3)	4 hrs.	90
(4)	3 hrs.	92
(5)	1 ½ hrs.	97
(6)	1 hrs.	100
(7)	¾ hrs.	102
(8)	½ hrs.	105
(9)	¼ hrs.	110

\*\*\*\*\* End of Report \*\*\*\*\*

## Graphical Presentation of Noise Level Monitoring Data

**For M/s. Mundra Solar PV Limited.**

**By – UniStar Environment and Research Labs Pvt. Ltd.**



### *NM: "Noise Level Monitoring Programme"*

