

Ref: MSTL/EMD/Solar/EC/MoEFCC/302/24 Date: 25.05.2024

#### To,

Additional Principal Chief Conservator of Forest Ministry of Environment, Forest and Climate Change Integrated Regional Office, Gandhinagar Aranya Bhavan, Fourth Floor, Room No 407 Sector 10A, Gandhinagar, 382010, Gujarat

Sub: Six Monthly Compliance Status of Environment Clearance for 31,000 MTPA Polysilicon Manufacturing plant within Notified APSEZ, Mundra, Kutch, Gujarat.

**Ref:** EC Letter No. **SEIAA/GUJ/EC/3(a)/1277/2019** Dated: 07.09.2019, Transferred EC vide no. SEIAA/GUJ/EC/3(a)/2721/2022 dated 15.11.2022 & Corrigendum in EC vide no. SEIAA/GUJ/EC/3(a)/522/2023 dated: 06.05.2023.

Dear Sir,

With reference to above subject, please find enclosed herewith Six-Monthly Environment Clearances (EC) compliance status report along with monitoring report etc. for the period of **October'2023 to March'2024** in soft (e-mail).

#### Poly-silicon manufacturing plant construction work yet to start.

This is for your kind information & record please.

Thanking You. Yours faithfully, for **Mundra Solar Technology Limited** 



(R N Shukla) Head – Env. & Forest

Encl: as above

**The Member Secretary Central Pollution Control Board** Parivesh Bhavan, East Arjun Nagar Kendriya Paryavaran Bhawan New Delhi- 110032

**The Member Secretary Gujarat Pollution Control Board** Prayavaran Bhawan, Sector- 10 A Gandhinagar- 382010

Mundra Solar Technology Limited Adani Corporate House, Shantigram, Near Vaishno Devi Circle, S G Highway, Khodiyar, Ahmedabad - 382421 Gujarat, India CIN: U40106GJ2021PLC127119 The Member Secretary State Level Environment Impact Assessment (SEIAA) Gandhinagar, Gujarat

The Regional Officer Gujarat Pollution Control Board Gandhidham, Kutch, Gujarat

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### SIX MONTHLY COMPLIANCE REPORT OF ENVIRONMENT CLEARANCE (EC)

for

31,000 MTPA Poly-Silicon Manufacturing Plant

At Within Notified APSEZ, MUNDRA TALUKA KUTCHH DISTRICT GUJARAT

Submitted to:

Integrated Regional Office, Gandhinagar Ministry of Environment & Forest & Climate Change State Level Environment Impact Assessment Authority Central Pollution Control Board, New Delhi & Gujarat State Pollution Control Board, Gandhinagar

# adani

Submitted By:

Environment Management Department **Mundra Solar Technology Limited** Adani Corporate House Shantigram, S G Highway Ahmedabad, Gujarat

Period: October'2023 to March'2024

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SI. No.	Title	Annexure			
1.	Compliance Status report on Environment Clearance (EC)				
2.	<ul> <li>Environmental Monitoring Reports:</li> <li>(October'2023 to March'2024)</li> <li>&gt; Ambient Air Quality 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 and EC

Transferred from Mundra Solar Ltd. to Mundra Solar Technology Ltd. on dated 10.11.2022 & Corrigendum in EC dated 06.05.2023

SI. NO.	CONDITIONS	COMPLIANCE STATUS
Α.	CONDITIONS:	
A 1.	SPECIFIC CONDITIONS	
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.	MSTL 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,	
3.	Unit shall explore the possibilities for environment friendly methods for disposal of incinerable & land fillable wastes before sending to CHWIF/TSDF sites.	•
4.	Flame proof electric fitting shall be provided within premises.	Agreed. Flame proof electric fitting will be considered during design stage.
5.	Safety measures for Hazardous chemical handling as per PESO standards shall be provided.	
6.	All measures shall be taken to prevent soil and ground water contamination.	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	MSTL will adhere to the stipulations made by
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.	MSTL has been proposed to be established
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,	Compliance assured
A 2.	WATER:	

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10.	Total Water requirement for the project shall not exceed 20,048 KLD, Unit shall reuse 48 KLD hence freshwater requirement 20,000 KLD and it shall be met through APSEZ water supply only. Prior permission from the concerned authority shall be obtained for withdrawal of water.	Permission for freshwater requirement has already been taken from APSEZ & submitted with compliance report for period Oct'20 to Mar'21 vide letter no MSL/EMD/EC/MoEF/871/21 on dated 19/05/2021.
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/	Agreed. Compliance assured, during the plant operation.
14.	MoEF & CC norms. 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. ETP of capacity 7000 KLD is proposed to treat the generated wastewater.
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.	-
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.	wastewater and treated domestic water will be

19.	pla Ne tre	ant ( eutral eatme	all provide a (ETP) sewag ization Pit ent of industi d regularly an	e treatme & Filtrat ial effluen	ent plant ion Syste it and it s	(STP) em fo shall b	), MSTL r capac e dome	has pr ity of ETP	roposec & STP f	or treating	effluent	
20.	th Ur Sy	e GPC nit sh stem	CB/ CPCB/ Mo all provide Co for waste	EF & CC no ontinuous ( water dis	orms. Online mo charge a	nitorin and a	g Comp n opera	tion.	issured,	Ū		lant
	on se	line rver, v	ment shall als monitoring which can be e basis.	results on	the cor	mpany'	s waste		charge	nonitoring will be esta	-	
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			e Meter	tion. ing facilit utlet of w	•	during be provided stem and re	l at the i				
22.	Ne ch qu AF de co	eutral emica antiti SEZ velop nsum	ogbooks of E ization pit & F al consumpti les and qualit outfall chai ment, garde ption etc. sha ed to the GPC	Filtration S on in tre- lies of efflu- nnel, reus ning & P ill be maint	ystem ope atment fa Jent disch e for Gr lantation, ained and	erations acilities arge t eenbel powe	s, opera s, Logbo o be sul t	tion.	oe main	tained, and		
A. 3.	AI											
23.	Ur	nit sha	all not exceed	fuel consu	umption fo	or stan	d-by DG	set as mer	ntioned	below:		
		Sr. No.	Source of emission with capacity	Stack Height in meter	lype of	Quantil of Fue MT/Da	i Iy I Em	rpe of iission		APCM		
			D. G. Set (125 KVA)	30.00	HSD	25 L/h	ΡΜ <sub>2.5</sub> , SO <sub>2</sub> , Ν		nsulatio	e Stack on, Filter ar re is propos	nd Acous	
24.	ge	nerat	all provide ad ion sources a	s mentione	ed above:		will be	e impleme	nted on	ice project	takes off	
25.		s gen	all provide ac eration sourc	-		ow:	will be	e impleme	nted on	he propose ice project		
		Sr. No	Specific	Source of I		in	k height meter	Type o emissio		APCM		
		1.	Hydro-chlor				30.0					
		2.		S Purificati ane Waste I			30.0 30.0	H2, HC CL2, NC		nturi Wet-S		
		<i>5</i> . 4.		tor Off-Gas			30.0			System	I	
26.		nit	shall provic ing System	le Contir	nuous E	missio	n Will b B MSTL Emiss	has pro	posed oring Sy	oroject take to install vstem [CEN	Continu	

27.	Unit shall provide adequate flaring system, If required	Noted.
28.	environment shall be monitored. The emission	fugitive emissions. Internal pucca Roads is already constructed to reduce the fugitive emission during vehicular movement. Air borne dust will be controlled with water sprinklers at suitable locations in the plant. A green belt will 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.	,
30.	<ul> <li>For control of fugitive emission, VOCs, following steps shall be followed:</li> <li>a. Closed handling and charging system shall be provided for chemicals</li> <li>b. Reflux condenser shall be provided over Reactors / Vessels.</li> <li>c. Pumps shall be provided with mechanical seals to prevent leakages.</li> </ul>	MSTL 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.	
32.	Regular monitoring of ground level concentration of PM2.5, PM10, S02, NOX, HCI, CI2, H2 & 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	Manufacturing Cluster (EMC) premises within APSEZ a Mundra, Kutch. Regular monitoring of ground level concentration of PM10, PM2.5, SO2, NOX, is being carried out by the consultant and report is enclosed as <b>Annexure- I.</b>

A. 4.	SOLID /	HAZARDOUS V	VASTE				
33.	All the	hazardous was	te management s	shall be I	aken	Agreed.	
	care as	mentioned belo	W			Complia off.	nce assured once project takes
	Sr. No	Types of Hazardous Waste	Specific Source of generation	Category		iantity /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 Handing	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		MT/Year	To recycler/re-user as raw material
	6	Waste Silicon	Process reactors	B1010		AT/Year	TSDF & will explore feasibility to use as Raw material & re-process
	7	Spent Activated Carbon		A4160		MT/Year	TSDF & re-process
34.	8		Purification Process shall have permiss			MT/Year	TSDF & re-user
A. 5.	Hazardo Transbo	ous and Othe oundary Movem				end-use	ill take due care that Authorized rs shall have permissions from cerned authorities.
35.	OTHER: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 under Corporate Environment, rain water harvesting under Corporate Environment Responsibility (CER) in accordance to the MoEF&CC's Office Memorandum No.MSTL 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 under Corporate Environment Responsibility (CER) in accordance to the MoEF&CC's Office Memorandum No.F.No.22-65/2017-IA.1II 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 reportMSTL 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's Office Memorandum No. F.No.22-65/2017-IA.11 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.						

В.	GENERAL CONDITIONS	
B. 1	CONSTRUCTION PHASE	
37.	Water demand during construction shall be reduced by	Noted.
	use of curing agents, super plasticizers and other best	Compliance assured once project takes
	construction practices.	off.
38.	Project proponent shall ensure that surrounding	Noted.
	environment shall not be affected due to construction	Will be complied once project takes off.
	activity. Construction materials shall be covered during	MSTL will take appropriate measure to
	transportation and regular water sprinkling shall be	control fugitive emissions.
	done in vulnerable areas for controlling fugitive	
39.	emission.	Noted.
59.	All required sanitary and hygienic measures shall be provided before starting the construction activities and	Will be complied once project takes off.
	to be maintained throughout the construction phase.	
40.	First Aid Box shall be made readily available in adequate	EMC premises already has well-
-0.	quantity at all the times.	established First Aid center.
41.	The project proponent shall strictly comply with the	
	Building and other Construction Workers' (Regulation of	Will be complied once project takes off
	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.	
42.	Ambient noise levels shall conform to residential	Noted & will be complied during
	standards both during day and night. Incremental	construction phase.
	pollution load on the ambient air and noise quality shall	
	be closely monitored during construction phase.	
43.	Use of Diesel Generator (DG) sets during construction	Will be complied once project takes off
	phase shall be strictly equipped with acoustic enclosure	
	and shall conform to the EPA Rules for air and noise	
4.4	emission standards. Safe disposal of wastewater and municipal solid wastes	Natad
44.	generated during the construction phase shall be	
	ensured.	wastewater and municipal solid wastes.
45.	All topsoil excavated during construction activity shall	-
-12,	be used in horticultural/landscape development within	
	the project site.	
46.		Noted
	construction phase shall be utilized within the premises	The proposed project area is almost flat.
	to the maximum extent possible and balance quantity	However, MSTL has ensured to utilize
	of excavated earth shall be disposed off with the	excavated earth in filling & surface
	approval of the competent authority after taking the	leveling as well landscaping.
	necessary precautions for general safety and health	
	aspects. Disposal of the excavated earth during	
	construction phase shall not create adverse effect	
	neighboring communities	

47.	Project proponent shall ensure use of eco-friendly	Noted.
47.	building material including fly ash bricks, fly ash paver	Compliance assured once project takes
		off.
	blocks, Ready Mix Concrete [RMC] and lead free paints	
	in the project.	MSTL has considered use of Fly Ash
		based bricks for its construction
		purpose.
48.	Fly ash shall be used in construction wherever	Noted and will be followed.
	applicable as per provisions of Fly Ash Notification	
	under the E.P. Act, 1986 and its subsequent	
	amendments from time to time.	
B. 2	OPERATION PHASE	
B. 2.1	WATER	
49.	The water meter shall be installed and records of daily	Noted.
	and monthly water consumption shall be maintained.	Compliance assured once project takes
		off
50.	All efforts shall be made to optimize water consumption	Noted.
	by exploring Best Available Technology (BAT). The unit	MSTL will make necessary efforts to
	shall continuously strive to reduce, recycle and reuse	optimize water consumption.
	the treated effluent.	
B. 2.2:	AIR	
51.	In case of use of spray dryer, the unit shall provide the	MSTL has proposed to install adequate
	adequate & efficient APCMs with the spray dryer so that	APCM system and will carry out third
	there should not be any adverse impact on human	party monitoring of APCM and report will
	health & environment. Unit shall carry out third party	be sent to GPCB periodically.
	monitoring of the proposed Spray dryer & it's 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.	
52.	Acoustic Enclosures should be provided DG sets (If	MSTL has proposed to provide Acoustic
52.	applicable) to mitigate the noise pollution and shall	
	conform to the EPA Rules for air emission standards.	-
		noise pollution.
53.	Stack/Vents (Whichever is applicable) of adequate	Compliance assured.
رر.		MSTL has considered adequate height
	height shall be provided as per the prevailing norms for	
	flue gas emission/Process gas emission.	of vents for process emissions.
54.	Flue gas emission & process gas emission (If any) shall	Noted and will be complied office
94.		
	conform to the standards prescribed by the	proposed project gets operational.
	GPCB/CPCB/MoEF&CC. At no time, emission level	
	should go beyond the stipulated standards.	
55.	All the reactors / vessels used in the manufacturing	Noted & Agreed,
	process shall be closed to reduce the fugitive emission.	
B .2.3	HAZARDOUS / SOLID WASTE	
56.	The company shall strictly comply with the rules and	Agreed and will be complied once
	regulations with regards to handling and disposal of	project takes off.
	Hazardous waste in accordance with the Hazardous and	
	Other Wastes (Management and Transboundary	
	·	•

		1
	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.	storage / disposal of hazardous wastes.
57.	Hazardous wastes shall be dried, packed and stored in	Noted.
	separate designated hazardous waste storage facility	Hazardous Waste Storage Shed will be
	with pucca bottom and leachate collection facility,	made to store waste in separate
	before its disposal.	designated place.
58.	The unit shall obtain necessary permission from the	
	nearby TSDF site and CHWIF. (Whichever is applicable)	project takes off.,
59.	Trucks/Tankers used for transportation of hazardous	Compliance assured once project takes
	waste shall be in accordance with the provisions under	
	the Motor Vehicle Act, 1988, and rules made there	
	under	
60.	The design of the Trucks/tankers shall be such that	Noted.
	there is no spillage during transportation	
61.	All possible efforts shall be made for Co-Processing of	MSTL will make efforts to reuse/reutilize
	the Hazardous waste prior to disposal into TSDF/CHWIF.	Hazardous waste prior to disposal.
62.	Management of fly ash (If any) shall be as per the Fly	Noted.
	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.	
B. 2.4	SAFETY	
63.	The occupier/manager shall strictly comply the	Noted & Agreed.
	provisions under the Factories Act 1948 and the Gujarat	
	Factories Rules 1963.	
64.	The project authorities shall strictly comply with the	Compliance assured once project takes
	provisions made in Manufacture. Storage and Import of	off.
	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.	
65.	Main entry and exit shall be separate and clearly marked	Noted.
	in the facility	
66.	Sufficient peripheral open passage shall be kept in the	Noted & Agreed
	margin area for free movement office tender/	
	emergency vehicle around the premises	
67.	Storage of flammable chemicals shall be sufficiently	Noted and Agreed.
	away from the production area.	Will be complied once project takes off.
68.	Sufficient number of fire extinguishers shall be provided	Noted and Agreed.
	near the plant and storage area	Will be complied once project takes off.
69.	All necessary precautionary measures shall be taken to	Noted and Agreed.
	avoid any kind of accident storage and handling of toxic	
	/ hazardous chemicals	

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

B. 2.5	NOISE:	
<b>B. 2.6</b> 85.	The overall noise level in and around the plant area shall be kept well within the standards by providing noise 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. <b>CLEANER PRODUCTION AND WASTE MINIMIZATION:</b> The unit shall undertake the Cleaner Production Assessment study through a reputed institute /	Adequate noise control measures like acoustic insulation hoods, silencers, enclosures, etc. will be provided. Noted. Compliance assured once project takes
	organization and shall form a CP team in the company. The recommendations thereof along with the compliance shall be furnished to the GPCB.	off.
86.	<ul> <li>minimization measures such as:</li> <li>a. Metering and control of quantities of active ingredients to minimize waste.</li> <li>b. Reuse of by-products from the process as raw materials or as raw materials substitutes.</li> <li>c. Use of automated and close filling to minimize spillages.</li> <li>d. Use of close feed system into batch reactors</li> <li>e. Venting equipment through vapour recovery system</li> <li>f. Use of high-pressure hoses for cleaning to reduce wastewater generation.</li> <li>g. Recycling of washes to subsequent batches</li> <li>h. Recycling of steam condensate</li> <li>i. Sweeping 1 mopping of floor instead of floor washing to avoid effluent generation.</li> <li>j. Regular preventive maintenance for avoiding leakage, spillage etc.</li> </ul>	
B. 2.7	GREEN BELT AND OTHER PLANTATION:	
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.	off. Greenbelt will be developed within the plant premises as per CPCB guidelines.
88.	Drip irrigation / low-volume, low-angle sprinkler system shall be used for the green belt development within the premises	
B. 3	OTHER CONDITION:	1
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.	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.	
91.	Rainwater 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 freshwater 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 & 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 MSTL 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.	
100.	Pucca flooring / impervious layer shall be provided in the work areas, chemical storage areas and chemical handling areas to minimize soil contamination.	
101.	Leakages from pipes, pumps shall be minimal and if occurs, shall be arrested promptly.	Noted and compliance assured.
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.	
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.	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.	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.	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.	
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 SEIAAI 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.	MSTL 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.
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.	regularly submitted to MoEF&CC, CPCB & GPCB. Last compliance report for the period of April'2023 to September'2023 submitted vide letter no.
		MSTL/EMD/Solar/EC/Mecca/1124/23 dated: 23.11.2023.
109.	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.	
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 & Compliance assured
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 MONITORING REPORT**

Period: October - 2023

FOR



## M/s. MUNDRA SOLAR PV LIMITED



**At** 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

QCI-NABET Accredited EIA Consultant Organization

GPCB Recognized Environmental Auditor (Schedule-11) ISO 9001 : 2015 Certified Company ISO 45001 : 2018 Certified Company



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ISO 45001:2018 Certified Company

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

Discipline.	Chemical Tes	sting	Name of Group	Atmospheric Pollution	
Test Report No.:	URAL/23/10	/MSPVL/A-001	Report Issue Date	23/10/2023	
Service Request form No.:	UERL/AIR/SR	F/10/A-001	Service Request Date	12/10/2023	
Sample ID No.:	UERL/AIR/ID/	/10/A-001	Field Data Sheet No.	UERL/AIR/FDS/A-23/10/001	
Name & Add. of Customer	Village Vandh	<b>M/s. Mundra Solar PV Limited</b> Village Vandh & Tunda, Taluka Mundra, Mundra, Kutch 370 435, Gujarat. India.			
Dates of Sampling:	12/10/2023		Date of Testing	15/10/2023	
Location of Sampling / Monitor	ing:	Near Canteen Area.			
Sampling Method		IS:5182(Part-14) and IS:5182 (Part-5)			
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	31/03/2023	30/03/2024		
UERL/AIR/FPS/51	Fine Particulate Sampler	137-DTD-2013	31/03/2023	30/03/2024		
General Sampling / Monitoring Observation as per CPCB Guideline						

#### General Sampling / Monitoring Observation as per CPCB Guideline

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	H H	24.10
2.	Flow Rate of PM <sub>10</sub>	m³/min	1.28
3.	Volume of Air Sampled for $PM_{10}$	m <sup>3</sup>	1850.88
4.	Volume of Air Sampled for PM <sub>2.5</sub>	m³	24.14

#### **Test Parameter Results**

 $\geq$ 

Sr. No.	Test Parameter	Unit	Result	Specific Value (As per NAAQMS)	Test Method
1.	Particulate Matter PM <sub>10</sub>	µg/m³	84	100	IS 5182 (Part-23)
2.	Particulate Matter PM <sub>2.5</sub>	µg/m³	24	60	IS 5182 (Part-24)
3.	Sulphur Dioxide as SO <sub>2</sub>	µg/m³	13.6	80	IS 5182 (Part-22)
4.	Nitrogen Dioxide as NO <sub>2</sub>	µg/m³	21.4	80	IS 5182 (Part-6)

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

**Checked By:** 

Nikunj D. Patel (Chemist)

**Authorized By:** 

Jaivik S. Tandel (Manager - Operations)

Page No.3

Note: This report is subject to terms and conditions mentioned overleaf



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

					0)		
Discip	oline.		Chemical Testing		Name of Group	Atmospheric Pollution	
Test F	Report No.:		URAL/23/10/MS	PVL/A-002	Report Issue Date	23/10/2023	
Servio	e Request form N	o.:	UERL/AIR/SRF/10	/A-002	Service Request Date	12/10/2023	
Samp	ample ID No.: UERL/AIR/ID/10/			A-002	Field Data Sheet No.	UERL/AIR/FDS/A-23/10/002	
			M/s. Mundra Sol	ar PV Limited			
		unda, Taluka Mundra	а,				
			Mundra, Kutch 37	70 435, Gujarat. India			
Dates	of Sampling:		12/10/2023		Date of Testing	15/10/2023	
Locati	ion of Sampling / N	Monitorin	g:	Near ETP Guard Bas	sin (MSTPL)		
Sampling Method				IS:5182(Part-14) an	IS:5182(Part-14) and IS:5182 (Part-5)		
	Details of Mas	ter Instru	ment Used for Mo	nitoring			
Ins	trument Id No.	Inst	rument Name	Serial Number	Cali. Date	Next Cali. Date	
UE	RL/AIR/RDS/27	Respira	ble Dust Sampler	1751-DTA-2013, 1142-DTA-2013	31/03/2023	30/03/2024	
UE	RL/AIR/FPS/42	Fine Pa	rticulate Sampler	125-DTD-2013	31/03/2023	30/03/2024	
	General Sampl	ing / Moi	nitoring Observatio	on as per CPCB Guide	line	$\approx$	
Sr. No.	[	Descriptio	n Environm	Unit of measurement	Observation		
1.	Monitoring Dura	tion	LIMIOIIII	H H	23.50		
2.	Flow Rate of PM	LO		m³/min	1.31		
3.	Volume of Air Sampled for PM <sub>10</sub>		m <sup>3</sup>	1847.1			
4. Volume of Air Sampled for PM <sub>2.5</sub>		m <sup>3</sup>	23.54				
Þ	Test Paramete	r Results		1			
Sr. No.	Test Parame	ter	Unit	Result	Specific Value (As per NAAQMS)	Test Method	

Sr. No.	Test Parameter	Unit	Result	(As per NAAQMS)	Test Method
1.	Particulate Matter PM <sub>10</sub>	μg/m³	78	100	IS 5182 (Part-23)
2.	Particulate Matter PM <sub>2.5</sub>	μg/m³	20	60	IS 5182 (Part-24)
3.	Sulphur Dioxide as SO <sub>2</sub>	μg/m³	14.6	80	IS 5182 (Part-22)
4.	Nitrogen Dioxide as NO <sub>2</sub>	μg/m³	17.2	80	IS 5182 (Part-6)

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

**Checked By:** 

Nikunj D. Patel (Chemist)

Authorized By:

Jaivik S. Tandel (Manager - Operations)

Page No.4

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ISO 45001:2018 Certified Company

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

Discipline.	Chemical Te	esting	Name of Group	Atmospheric Pollution
Test Report No.:	URAL/23/1	0/MSPVL/A-003	Report Issue Date	23/10/2023
Service Request form No.:	UERL/AIR/S	RF/10/A-003	Service Request Date	12/10/2023
Sample ID No.:	UERL/AIR/II	D/10/A-003	Field Data Sheet No.	UERL/AIR/FDS/A-23/10/003
Name & Add. of Customer	M/s. Mundra Solar PV Limited Village Vandh & Tunda, Taluka Mundra, Mundra, Kutch 370 435, Gujarat. India.			
Dates of Sampling:	12/10/2023	8	Date of Testing	15/10/2023
Location of Sampling / Monitoring:		Near Occupational Health Center.		
Sampling Method		IS:5182(Part-14) and IS:5182 (Part-5)		

#### **Details of Master Instrument Used for Monitoring** $\triangleright$

Instrument ld No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date		
UERL/AIR/RDS/22	Respirable Dust Sampler	1745-DTB-2013 1151-DTB-2013	31/03/2023	30/03/2024		
UERL/AIR/FPS/22	Fine Particulate Sampler	129-DTB-2013	31/03/2023	30/03/2024		
General Sampling / Monitoring Observation as per CPCB Guideline						

#### General Sampling / Monitoring Observation as per CPCB Guideline

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	H	24.01
2.	Flow Rate of PM <sub>10</sub>	m³/min	1.32
3.	Volume of Air Sampled for $PM_{10}$	m³	1901.59
4.	Volume of Air Sampled for PM <sub>2.5</sub>	m³	24.04

#### **Test Parameter Results**

Sr. No.	Test Parameter	Unit	Result	Specific Value (As per NAAQMS)	Test Method
1.	Particulate Matter $PM_{10}$	μg/m³	72	100	IS 5182 (Part-23)
2.	Particulate Matter PM <sub>2.5</sub>	µg/m³	24	60	IS 5182 (Part-24)
3.	Sulphur Dioxide as SO <sub>2</sub>	µg/m³	16.2	80	IS 5182 (Part-22)
4.	Nitrogen Dioxide as NO <sub>2</sub>	µg/m³	19.6	80	IS 5182 (Part-6)

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

**Checked By:** 

Nikunj D. Patel (Chemist)

Authorized By:

Jaivik S. Tandel (Manager - Operations)

Page No.5

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<u>TEST REPORT</u> (AMBIENT AIR MONITORING)					
Discipline.	Atmospheric Pollution				
Test Report No.:	URAL/23/10	/MSPVL/A-004	Report Issue Date	23/10/2023	
Service Request form No.:	UERL/AIR/SR	F/10/A-004	Service Request Date	13/10/2023	
Sample ID No.:	UERL/AIR/ID,	/10/A-004	Field Data Sheet No.	UERL/AIR/FDS/A-23/10/004	
Name & Add. of Customer Village Vand		undra Solar PV Limited /andh & Tunda, Taluka Mundra, , Kutch 370 435, Gujarat. India.			
Dates of Sampling:	13/10/2023		Date of Testing	15/10/2023	
Location of Sampling / Monitoring:		Near Village Vandh			
Sampling Method IS:5182(Part-14) and IS:5182 (Part-5)					
Details of Master	Instrument Used for N	Ionitoring			
			Cali Data	Neut Celi Dete	

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date	
	Dospirable Dust Sampler	1751-DTA-2013	21/02/2022	20/02/2024	
UERL/AIR/RDS/27	Respirable Dust Sampler	1142-DTA-2013	31/03/2023	30/03/2024	
UERL/AIR/FPS/42	Fine Particulate Sampler	125-DTD-2013	31/03/2023	30/03/2024	

#### General Sampling / Monitoring Observation as per CPCB Guideline

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	ment and kesearc	1 Labs PVI. L10. 24
2.	Flow Rate of PM <sub>10</sub>	m³/min	1.28
3.	Volume of Air Sampled for $PM_{10}$	m³	1843.2
4.	Volume of Air Sampled for PM <sub>2.5</sub>	m <sup>3</sup>	24.04

 $\geq$ **Test Parameter Results** 

Sr. No.	Test Parameter	Unit	Result	Specific Value (As per NAAQMS)	Test Method
1.	Particulate Matter PM <sub>10</sub>	µg/m³	86	100	IS 5182 (Part-23)
2.	Particulate Matter PM <sub>2.5</sub>	µg/m³	28	60	IS 5182 (Part-24)
3.	Sulphur Dioxide as SO <sub>2</sub>	µg/m³	17.2	80	IS 5182 (Part-22)
4.	Nitrogen Dioxide as NO <sub>2</sub>	µg/m³	20.7	80	IS 5182 (Part-6)

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

**Checked By:** 

Nikunj D. Patel (Chemist)

**Authorized By:** 

Jaivik S. Tandel (Manager - Operations)

Page No.6

Note: This report is subject to terms and conditions mentioned overleaf

# **ENVIRONMENTAL MONITORING REPORT**

Period: November - 2023

### FOR



# M/s. Mundra Solar Energy Limited



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

Chemical Tes	ting	Name of Group	<b>Atmospheric Pollution</b>	
URAL/23/11/	MSEL/A-001	Report Issue Date	27/11/2023	
UERL/AIR/SRI	F/11/A-001	Service Request Date	08/11/2023	
UERL/AIR/ID/	′11/A-001	Field Data Sheet No.	UERL/AIR/FDS/A-23/11/001	
Village Vandh	M/s. Mundra Solar Energy Limited Village Vandh & Tunda, Taluka Mundra, Mundra, Kutch 370 435, Gujarat. India.			
08/11/2023		Date of Testing	10/11/2023	
Location of Sampling / Monitoring:		Near Canteen Area.		
Sampling Method		IS:5182(Part-14) and IS:5182 (Part-5)		
	URAL/23/11/ UERL/AIR/SRI UERL/AIR/ID/ M/s. Mundra Village Vandh Mundra, Kuto 08/11/2023	Village Vandh & Tunda, Taluka M Mundra, Kutch 370 435, Gujarat 08/11/2023 ring: Near Canteen Ar	URAL/23/11/MSEL/A-001       Report Issue Date         UERL/AIR/SRF/11/A-001       Service Request Date         UERL/AIR/ID/11/A-001       Field Data Sheet No.         M/s. Mundra Solar Energy Limited       Village Vandh & Tunda, Taluka Mundra,         Village Vandh & Tunda, Taluka Mundra,       Mundra, Kutch 370 435, Gujarat. India.         08/11/2023       Date of Testing         ring:       Near Canteen Area.	

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

Instrument ld No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/25	Respirable Dust Sampler	1744-DTA-2013 1127-DTJ-2012	31/03/2023	30/03/2024
UERL/AIR/FPS/51	Fine Particulate Sampler	137-DTD-2013	31/03/2023	30/03/2024
General Sampling / Monitoring Observation as per CPCB Guideline				

#### 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>	m³/min	1.28
3.	Volume of Air Sampled for $PM_{10}$	m <sup>3</sup>	1843.2
4.	Volume of Air Sampled for PM <sub>2.5</sub>	m³	24.05

#### **Test Parameter Results**

 $\triangleright$ 

Sr. No.	Test Parameter	Unit	Result	Specific Value (As per NAAQMS)	Test Method
1.	Particulate Matter PM <sub>10</sub>	µg/m³	65	100	IS 5182 (Part-23)
2.	Particulate Matter PM <sub>2.5</sub>	µg/m³	20	60	IS 5182 (Part-24)
3.	Sulphur Dioxide as SO <sub>2</sub>	µg/m³	14.6	80	IS 5182 (Part-22)
4.	Nitrogen Dioxide as NO <sub>2</sub>	µg/m³	19.2	80	IS 5182 (Part-6)

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

**Checked By:** 

Nikunj D. Patel (Chemist)

**Authorized By:** 

Jaivik S. Tandel (Manager - Operations)

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

			(AIVIDIEI)		9		
Discip	oline.		Chemical Testing Name of Group Atmospheric Pollutio		Atmospheric Pollution		
Test F	Report No.:		URAL/23/11/MS	EL/A-002	Report Issue Date	27/11/2023	
Servio	ce Request form N	o.:	UERL/AIR/SRF/11	/A-002	Service Request Date	08/11/2023	
Samp	ple ID No.: UERL/AIR/ID/11,		UERL/AIR/ID/11/	A-002	Field Data Sheet No.	UERL/AIR/FDS/A-23/11/002	
			M/s. Mundra Sol	ar Energy Limited			
Name	e & Add. of Custom	ner	village varion & i	unda, Taluka Mundra	1,		
			Mundra, Kutch 37	70 435, Gujarat. India			
Dates	of Sampling:		08/11/2023		Date of Testing	10/11/2023	
Locat	ion of Sampling / N	Monitorin	g:	Near ETP Guard Ba	sin (MSTPL)		
Samp	ling Method			IS:5182(Part-14) an	ud IS:5182 (Part-5)		
	Details of Mas	ter Instru	ment Used for Mo	nitoring			
Ins	strument Id No. Instrument Name		Serial Number	Cali. Date	Next Cali. Date		
UE	RL/AIR/RDS/27	RL/AIR/RDS/27 Respirable Dust Sampler		1751-DTA-2013, 1142-DTA-2013	02/04/2022	01/04/2023	
UE	RL/AIR/FPS/42	Fine Pa	irticulate Sampler	125-DTD-2013	02/04/2022	01/04/2023	
Þ	General Sampl	ing / Mo	nitoring Observatio	on as per CPCB Guide	line	$\approx$	
Sr. No.	ſ	Descriptio	on Environm	Unit of measurement	Observation		
1.	Monitoring Dura	tion	LIMIOIIII	H	24		
2.	Flow Rate of PM	10		m³/min	1.26		
3.	Volume of Air Sa	mpled for	<sup>-</sup> PM <sub>10</sub>	m <sup>3</sup>	1814.4		
4.	Volume of Air Sa	mpled for	<sup>-</sup> PM <sub>2.5</sub>	m <sup>3</sup>	24.05		
Þ	Test Paramete	r Results					
Sr.	Test Parame	ter	Unit	Result	Specific Value	Test Method	
No.	i cot i aranie			nesun	(As per NAAQMS)		
1.	Particulate Matte	r PM <sub>10</sub>	μg/m³	62	100	IS 5182 (Part-23)	

NO.				(As per NAAQMS)	
1.	Particulate Matter PM <sub>10</sub>	μg/m³	62	100	IS 5182 (Part-23)
2.	Particulate Matter PM <sub>2.5</sub>	μg/m³	25	60	IS 5182 (Part-24)
3.	Sulphur Dioxide as SO <sub>2</sub>	μg/m³	16.1	80	IS 5182 (Part-22)
4.	Nitrogen Dioxide as NO <sub>2</sub>	µg/m³	20.4	80	IS 5182 (Part-6)

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

**Checked By:** 

Nikunj D. Patel (Chemist)

Authorized By:

Jaivik S. Tandel (Manager - Operations)

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#### TEST REPORT (AMBIEN

	LJI		
IT	AIR	MONITORING)	

Discipline.	Chemical T	esting	Name of Group	Atmospheric Pollution
Test Report No.:	URAL/23/1	1/MSEL/A-003	Report Issue Date	27/11/2023
Service Request form No.:	UERL/AIR/S	SRF/11/A-003	Service Request Date	08/11/2023
Sample ID No.:	UERL/AIR/I	D/11/A-003	Field Data Sheet No.	UERL/AIR/FDS/A-23/11/003
Name & Add. of Customer	<ul> <li>M/s. Mundra Solar Energy Limited</li> <li>r Village Vandh &amp; Tunda, Taluka Mundra,</li> <li>Mundra, Kutch 370 435, Gujarat. India.</li> </ul>			
Dates of Sampling:	08/11/2023	3	Date of Testing	10/11/2023
Location of Sampling / Monitori	ng:	Near Occupational Health Center.		
Sampling Method IS:5182(Part-14) and IS:5182 (Part-5)				
Details of Master Instrument Used for Monitoring				

Instrument ld No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date	
UERL/AIR/RDS/22	Respirable Dust Sampler	1745-DTB-2013 1151-DTB-2013	31/03/2023	30/03/2024	
UERL/AIR/FPS/22         Fine Particulate Sampler         129-DTB-2013         31/03/2023         30/03/2024					
General Sampling / Monitoring Observation as per CPCB Guideline					

#### 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>	m³/min	1.31
3.	Volume of Air Sampled for $PM_{10}$	m³	1886.4
4.	Volume of Air Sampled for PM <sub>2.5</sub>	m³	24.05

#### **Test Parameter Results**

Sr. No.	Test Parameter	Unit	Result	Specific Value (As per NAAQMS)	Test Method
1.	Particulate Matter PM <sub>10</sub>	µg/m³	72	100	IS 5182 (Part-23)
2.	Particulate Matter PM <sub>2.5</sub>	µg/m³	22	60	IS 5182 (Part-24)
3.	Sulphur Dioxide as SO <sub>2</sub>	µg/m³	15.4	80	IS 5182 (Part-22)
4.	Nitrogen Dioxide as NO <sub>2</sub>	µg/m³	22.1	80	IS 5182 (Part-6)

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

**Checked By:** 

Nikunj D. Patel (Chemist)

Authorized By:

Jaivik S. Tandel (Manager - Operations)

Page No.5

Note: This report is subject to terms and conditions mentioned overleaf



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Environmental ISO 9001 : 2015 n e d u l e - II) Certified Company ISO 45001 : 2018 Certified Company

#### TEST REPORT

Auditor	(Schedule-I

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(AMBIENT AIR MONITORING)
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Discipline. Chemical Testing			sting	Name of Group	Atmospheric Pollution	
Test R	eport No.:		URAL/23/11	/MSEL/A-004	Report Issue Date	27/11/2023
Servic	e Request form	No.:	UERL/AIR/SR	F/11/A-004	Service Request Date	07/11/2023
Samp	le ID No.:		UERL/AIR/ID	/11/A-004	Field Data Sheet No.	UERL/AIR/FDS/A-23/11/004
			M/s. Mundra	Solar Energy Limited		
Name	& Add. of Custo	omer	Village Vandh	& Tunda, Taluka Mund	ra,	
			Mundra, Kutch	n 370 435, Gujarat. Indi	a.	
Dates	of Sampling:		07/11/2023		Date of Testing	10/11/2023
Location of Sampling / Monitoring:				Near Village Vand	1	
Sampling Method				IS:5182(Part-14) and IS:5182 (Part-5)		
Details of Master Instrument Used for Mo			Ionitoring			
Instr	ument Id No.	Instrum	ent Name	Serial Number	Cali. Date	Next Cali. Date
UER	L/AIR/RDS/27	Respirable I	Dust Sampler	1751-DTA-2013 1142-DTA-2013	31/03/2023	30/03/2024
UER	L/AIR/FPS/42	Fine Particu	llate Sampler	125-DTD-2013	31/03/2023	30/03/2024
	General Sam	pling / Monit	oring Observa	tion as per CPCB Gui	deline	~
Sr. No.	Description		Unit of measurement	0	bservation	
1.	L. Monitoring Duration		ment and Keseart	Laus PVI. LIU. 24		
2.	2. Flow Rate of PM <sub>10</sub>		m³/min		1.26	
3.	Volume of Air Sampled for PM <sub>10</sub>		m <sup>3</sup>		1814.4	
4.	Volume of Air S	Sampled for P	M <sub>2.5</sub>	m <sup>3</sup>		24.05

> Test Parameter Results

Sr. No.	Test Parameter	Unit	Result	Specific Value (As per NAAQMS)	Test Method
1.	Particulate Matter PM <sub>10</sub>	µg/m³	85	100	IS 5182 (Part-23)
2.	Particulate Matter PM <sub>2.5</sub>	µg/m³	24	60	IS 5182 (Part-24)
3.	Sulphur Dioxide as SO <sub>2</sub>	µg/m³	14.1	80	IS 5182 (Part-22)
4.	Nitrogen Dioxide as NO <sub>2</sub>	µg/m³	23.4	80	IS 5182 (Part-6)

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

**Checked By:** 

Nikunj D. Patel (Chemist)

**Authorized By:** 

Jaivik S. Tandel (Manager - Operations)

Page No.6

Note: This report is subject to terms and conditions mentioned overleaf

# **ENVIRONMENTAL MONITORING REPORT**

Period: December - 2023

### FOR



### M/s. MUNDRA SOLAR PV LIMITED



**At** 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

QCI-NABET Accredited EIA Consultant Organization GPCB Recognized Environmental Auditor (Schedule-11) ISO 9001 : 2015 Certified Company ISO 45001 : 2018 Certified Company



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QCI-NABET Accredited EIA & GW Consultant Organization

**GPCB** Recognized Environmental

ISO 9001:2015 Certified Company ISO 45001:2018 **Certified Company** 

	TEST	REPORT	
(AMBIEN	T AIR	MONITO	RING)

(Schedule-II)

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BIENT AIR MONITORING						
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Discipline.		Chemical Tes	ting	Name of Group	Atmospheric Pollution
Test Report No.:		URAL/23/12/	MSPVL/A-001	Report Issue Date	27/12/2023
Service Request form	n No.:	UERL/AIR/SRF/12/A-001		Service Request Date	13/12/2023
Sample ID No.:	ample ID No.: UERL/AIR/ID		12/A-001	Field Data Sheet No.	UERL/AIR/FDS/A-23/12/001
Name & Add. of Custo	omer	Village Vandh	Solar PV Limited & Tunda, Taluka M h 370 435, Gujarat.		
Dates of Sampling:		13/12/2023		Date of Testing	14/12/2023
Location of Sampling	/ Monitoring	g:	Near Canteen Are	a.	
Sampling Method			IS:5182(Part-14) a	nd IS:5182 (Part-5)	
Details of M	aster Instrur	ment Used for I	Monitoring		
Instrument Id No.	Instrum	ent Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/25	Respirable	Dust Sampler	1744-DTA-2013 1127-DTJ-2012	31/03/2023	30/03/2024

UERL/AIR/FPS/51 Fine Particulate Sampler 137-DTD-2013 31/03/2023 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>	m³/min	1.25
3.	Volume of Air Sampled for PM <sub>10</sub>	m <sup>3</sup>	1800.0
4.	Volume of Air Sampled for PM <sub>2.5</sub>	m <sup>3</sup>	24.05

**Test Parameter Results** 

Sr. No.	Test Parameter	Unit	Result	Specific Value (As per NAAQMS)	Test Method
1.	Particulate Matter PM <sub>10</sub>	µg/m³	68	100	IS 5182 (Part-23)
2.	Particulate Matter PM <sub>2.5</sub>	µg/m³	22	60	IS 5182 (Part-24)
3.	Sulphur Dioxide as SO <sub>2</sub>	µg/m³	15.7	80	IS 5182 (Part-22)
4.	Nitrogen Dioxide as NO <sub>2</sub>	µg/m³	20.4	80	IS 5182 (Part-6)

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

**Checked By:** 

Nikunj D. Patel (Chemist)

**Authorized By:** 

30/03/2024

Jaivik S. Tandel (Manager - Operations)

Page No.3

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#### TEST REPORT (AMBIENT AIR MONITORING)

			(AIVIDIEI		G)		
Discip	oline.		Chemical Testing		Name of Group	Atmospheric Pollution	
Test F	Report No.:		URAL/23/12/MS	PVL/A-002	Report Issue Date	27/12/2023	
Servic	e Request form N	o.:	UERL/AIR/SRF/12/A-002		Service Request Date	13/12/2023	
Samp	le ID No.:		UERL/AIR/ID/12/	A-002	Field Data Sheet No.	UERL/AIR/FDS/A-23/12/002	
M/s. Mundra So			M/s. Mundra Sol	ar PV Limited			
Name & Add. of Customer Village Vandh & T			Village Vandh & T	unda, Taluka Mundra	a,		
Mundra, Kutch 3			Mundra, Kutch 37	70 435, Gujarat. India			
Dates	of Sampling:		13/12/2023		Date of Testing	14/12/2023	
Locati	ion of Sampling / N	Monitorin	g:	Near ETP Guard Bas	asin (MSTPL)		
Samp	npling Method IS:5182(Part-14) and IS:5182 (Part-5)						
	Details of Mast	ter Instru	ment Used for Mo	nitoring			
Inst	trument Id No.	Inst	rument Name	Serial Number	Cali. Date	Next Cali. Date	
UEI	RL/AIR/RDS/27	Respira	ble Dust Sampler	1751-DTA-2013, 1142-DTA-2013	31/03/2023	30/03/2024	
UE	RL/AIR/FPS/42	Fine Pa	rticulate Sampler	125-DTD-2013	31/03/2023	30/03/2024	
	General Sampl	ing / Moi	nitoring Observatio	on as per CPCB Guide	line	$\approx$	
Sr. No.	ſ	Descriptio	n Environm	Unit of measurement	Observation		
1.	Monitoring Dura	tion	LIMIOIIII	H	24		
2.	Flow Rate of PM	10		m³/min		1.23	
3.	Volume of Air Sa	mpled for	• PM <sub>10</sub>	m <sup>3</sup>	1771.2		
4.	Volume of Air Sa	mpled for	PM <sub>2.5</sub>	m <sup>3</sup>		24.05	
Þ	Test Paramete	r Results					
Sr. No.	Test Parame	ter	Unit	Result	Specific Value (As per NAAQMS)	Test Method	

No.	Test Parameter	Unit	Result	(As per NAAQMS)	Test Method
1.	Particulate Matter PM <sub>10</sub>	μg/m³	64	100	IS 5182 (Part-23)
2.	Particulate Matter PM <sub>2.5</sub>	μg/m³	26	60	IS 5182 (Part-24)
3.	Sulphur Dioxide as SO <sub>2</sub>	μg/m³	17.2	80	IS 5182 (Part-22)
4.	Nitrogen Dioxide as NO <sub>2</sub>	μg/m³	22.1	80	IS 5182 (Part-6)

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

**Checked By:** 

Nikunj D. Patel (Chemist)

Authorized By:

Jaivik S. Tandel (Manager - Operations)

Page No.4

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

•		

Discipline.	Chemical T	esting	Name of Group	Atmospheric Pollution		
Test Report No.:	URAL/23/1	2/MSPVL/A-003	Report Issue Date	27/12/2023		
Service Request form No.:	UERL/AIR/S	RF/12/A-003	Service Request Date	13/12/2023		
Sample ID No.:	UERL/AIR/II	D/12/A-003	Field Data Sheet No.	UERL/AIR/FDS/A-23/12/003		
Name & Add. of Customer	Village Van	M/s. Mundra Solar PV Limited Village Vandh & Tunda, Taluka Mundra, Mundra, Kutch 370 435, Gujarat. India.				
Dates of Sampling:	13/12/2023	8	Date of Testing	14/12/2023		
Location of Sampling / Monitoring:		Near Occupational Health Center.				
Sampling Method		IS:5182(Part-14) and IS:5182 (Part-5)				

#### **Details of Master Instrument Used for Monitoring** $\triangleright$

Instrument ld No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date			
UERL/AIR/RDS/22	Respirable Dust Sampler	1745-DTB-2013	31/03/2023	30/03/2024			
	Respirable Dust Sampler	1151-DTB-2013	31/03/2023	30/03/2024			
UERL/AIR/FPS/22	Fine Particulate Sampler	129-DTB-2013	31/03/2023	30/03/2024			
General Sar	General Sampling / Monitoring Observation as per CPCB Guideline						

#### 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>	m³/min	1.26
3.	Volume of Air Sampled for $PM_{10}$	m <sup>3</sup>	1814.4
4.	Volume of Air Sampled for PM <sub>2.5</sub>	m³	24.05

#### **Test Parameter Results**

Sr. No.	Test Parameter	Unit	Result	Specific Value (As per NAAQMS)	Test Method
1.	Particulate Matter PM <sub>10</sub>	µg/m³	75	100	IS 5182 (Part-23)
2.	Particulate Matter PM <sub>2.5</sub>	µg/m³	24	60	IS 5182 (Part-24)
3.	Sulphur Dioxide as SO <sub>2</sub>	µg/m³	16.8	80	IS 5182 (Part-22)
4.	Nitrogen Dioxide as NO <sub>2</sub>	µg/m³	23.5	80	IS 5182 (Part-6)

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

**Checked By:** 

Nikunj D. Patel (Chemist)

Authorized By:

Jaivik S. Tandel (Manager - Operations)

Page No.5

Note: This report is subject to terms and conditions mentioned overleaf



MoEF&CC	(GOI)	Recogn	ized	Environmental	Q
Laboratory ur	nder the	EPA-1986 (	31.03.20	023 to 22.09.2024)	(

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#### TEST REPORT (AMBIENT AIR MONITORING)

Discipline. Chemica			Chemical Tes	sting	Name of Group	Atmospheric Pollution	
Test Report No.: URAL/23/12/			URAL/23/12	/MSPVL/A-004	Report Issue Date	27/12/2023	
Service Request form No.: UERL/AIR/SRF/12/A-004 Service Request Date 15/12/2023					15/12/2023		
Samp	le ID No.:		UERL/AIR/ID,	/12/A-004	Field Data Sheet No.	UERL/AIR/FDS/A-23/12/004	
M/s. Mundra			M/s. Mundra	Solar PV Limited			
Name	e & Add. of Custo	omer	Village Vandh	& Tunda, Taluka Mund	ra,		
			Mundra, Kutch	tch 370 435, Gujarat. India.			
Dates of Sampling: 15/12/2023			15/12/2023		Date of Testing	16/12/2023	
Location of Sampling / Monitoring:				Near Village Vandh			
Sampling Method				IS:5182(Part-14) and IS:5182 (Part-5)			
	Details of Ma	aster Instrum	ent Used for N	Ionitoring			
Insti	rument Id No.	Instrum	ent Name	Serial Number	Cali. Date	Next Cali. Date	
UER	L/AIR/RDS/27	Respirable	Dust Sampler	1751-DTA-2013 1142-DTA-2013	31/03/2023	30/03/2024	
UER	L/AIR/FPS/42	Fine Particu	late Sampler	125-DTD-2013	31/03/2023	30/03/2024	
7	General Sam	pling / Monit	oring Observa	tion as per CPCB Gui	deline	<u></u>	
Sr. No.	Description		Unit of measurement	Observation			
1.	Monitoring Du	ration	Environ	ment and Researc	n lads pvi. Lio. 🥯	24	
2.	Flow Rate of PM <sub>10</sub>			m³/min	1.28		
3.	Volume of Air S	Sampled for P	M <sub>10</sub>	m <sup>3</sup>	1843.2		
-							

Volume of Air Sampled for PM<sub>2.5</sub>
 Test Parameter Results

4.

Sr. No.	Test Parameter	Unit	Result	Specific Value (As per NAAQMS)	Test Method
1.	Particulate Matter PM <sub>10</sub>	μg/m³	88	100	IS 5182 (Part-23)
2.	Particulate Matter PM <sub>2.5</sub>	µg/m³	28	60	IS 5182 (Part-24)
3.	Sulphur Dioxide as SO <sub>2</sub>	µg/m³	15.2	80	IS 5182 (Part-22)
4.	Nitrogen Dioxide as NO <sub>2</sub>	µg/m³	24.6	80	IS 5182 (Part-6)

m³

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

**Checked By:** 

Nikunj D. Patel (Chemist)

Authorized By:

24.05

Jaivik S. Tandel (Manager - Operations)

Page No.6

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# **ENVIRONMENTAL MONITORING REPORT**

Period: January - 2024

FOR



# M/s. Mundra Solar Energy Limited



**At** 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

QCI-NABET Accredited EIA Consultant Organization GPCB Recognized Environmental Auditor (Schedule-11) ISO 9001 : 2015 Certified Company ISO 45001 : 2018 Certified Company



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GPCB Recognized Environmental Auditor (Schedule-II)

ISO 9001 : 2015 ISO 45001:2018 Certified Company Certified Company

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

Chemical Testing		Name of Group	<b>Atmospheric Pollution</b>		
URAL/24/01/	MSEL/A-001	Report Issue Date	20/01/2024		
UERL/AIR/SRI	F/01/A-001	Service Request Date	10/01/2024		
UERL/AIR/ID/	′01/A-001	Field Data Sheet No.	UERL/AIR/FDS/A-24/01/001		
M/s. Mundra Solar Energy Limited Village Vandh & Tunda, Taluka Mundra, Mundra, Kutch 370 435, Gujarat. India.					
10/01/2024		Date of Testing	11/01/2024		
g:	Near Canteen Area.				
	IS:5182(Part-14) and IS:5182 (Part-5)				
> Details of Master Instrument Used for Monitoring					
	URAL/24/01/ UERL/AIR/SR UERL/AIR/ID/ M/s. Mundra Village Vandh Mundra, Kuto 10/01/2024 g:	URAL/24/01/MSEL/A-001         UERL/AIR/SRF/01/A-001         UERL/AIR/ID/01/A-001         M/s. Mundra Solar Energy Limite         Village Vandh & Tunda, Taluka M         Mundra, Kutch 370 435, Gujarat.         10/01/2024         g:         Near Canteen Are         IS:5182(Part-14) a	URAL/24/01/MSEL/A-001     Report Issue Date       UERL/AIR/SRF/01/A-001     Service Request Date       UERL/AIR/ID/01/A-001     Field Data Sheet No.       M/s. Mundra Solar Energy Limited     Village Vandh & Tunda, Taluka Mundra,       Village Vandh & Tunda, Taluka Mundra,     Date of Testing       g:     Near Canteen Area.       IS:5182(Part-14) and IS:5182 (Part-5)		

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date		
UERL/AIR/RDS/25	L/AIR/RDS/25 Respirable Dust Sampler		31/03/2023	30/03/2024		
	Respirable Dust Sampler	1127-DTJ-2012	31/03/2023	30/03/2024		
UERL/AIR/FPS/51	Fine Particulate Sampler	137-DTD-2013	31/03/2023	30/03/2024		
> General Sampling / Monitoring Observation as per CPCB Guideline						

#### 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>	m³/min	1.26
3.	Volume of Air Sampled for $PM_{10}$	m <sup>3</sup>	1814.4
4.	Volume of Air Sampled for PM <sub>2.5</sub>	m <sup>3</sup>	24.05

#### **Test Parameter Results**

 $\triangleright$ 

Sr. No.	Test Parameter	Unit	Result	Specific Value (As per NAAQMS)	Test Method
1.	Particulate Matter PM <sub>10</sub>	µg/m³	63	100	IS 5182 (Part-23)
2.	Particulate Matter PM <sub>2.5</sub>	µg/m³	18	60	IS 5182 (Part-24)
3.	Sulphur Dioxide as SO <sub>2</sub>	µg/m³	13.8	80	IS 5182 (Part-22)
4.	Nitrogen Dioxide as NO <sub>2</sub>	µg/m³	18.4	80	IS 5182 (Part-6)

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

**Checked By:** 

Nikunj D. Patel (Chemist)

**Authorized By:** 

Jaivik S. Tandel (Manager - Operations)

Page No.3

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GPCB Recognized Environmental Auditor (Schedule-II)

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

					0)		
Discipline. Chemical Testing					Name of Group	Atmospheric Pollution	
Test	Report No.:		URAL/24/01/MS	EL/A-002	Report Issue Date20/01/2024		
Servi	ce Request form N	o.:	UERL/AIR/SRF/01	/A-002	Service Request Date	10/01/2024	
Samp	ole ID No.:		UERL/AIR/ID/01/	A-002	Field Data Sheet No. UERL/AIR/FDS/A-24/01/00		
M/s. Mundra Sola			M/s. Mundra Sol	ar Energy Limited			
Nam	e & Add. of Custom	er	Village Vandh & T	unda, Taluka Mundra	а,		
Num			-		-		
			Munura, Kutch 3	70 435, Gujarat. India	Γ	Γ	
Dates	s of Sampling:		10/01/2024	Γ	Date of Testing	11/01/2024	
Locat	ion of Sampling / N	/Ionitorin	g:	Near ETP Guard Bas	sin (MSTPL)		
Samp	ling Method			IS:5182(Part-14) an	d IS:5182 (Part-5)		
	Details of Mast	ter Instru	ment Used for Mo	nitoring			
Ins	trument Id No.	Inst	rument Name	Serial Number	Cali. Date	Next Cali. Date	
UE	UERL/AIR/RDS/27 Respirable Dust Sampler		able Dust Sampler	1751-DTA-2013, 1142-DTA-2013	31/03/2023	30/03/2024	
UE	RL/AIR/FPS/42	Fine Pa	rticulate Sampler	125-DTD-2013	31/03/2023	30/03/2024	
)	General Sampli	ing / Mo	nitoring Observatio	on as per CPCB Guide	line	$\approx$	
Sr. No.	C	Descriptic	n Environm	Unit of measurement	Observation		
1.	Monitoring Durat	tion	LINIOIII	H and Hosparon		24	
2.	Flow Rate of PM <sub>1</sub>	.0		m³/min		1.23	
3.	Volume of Air Sar	mpled for	• PM <sub>10</sub>	m <sup>3</sup>		1771.2	
4.	Volume of Air Sar	mpled for	PM <sub>2.5</sub>	m <sup>3</sup>	24.05		
)	Test Parameter	r Results					
Sr. No.	Test Parame	ter	Unit	Result	Specific Value (As per NAAQMS)	Test Method	
1.	Particulate Matte	r PM <sub>10</sub>	μg/m³	60	100	IS 5182 (Part-23)	
2.	Particulate Matte	r PM <sub>2.5</sub>	μg/m³	23	60	IS 5182 (Part-24)	
3.	Sulphur Dioxide a	s SO2	μg/m³	15.2	80	IS 5182 (Part-22)	

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

80

19.7

µg/m³

**Checked By:** 

Nitrogen Dioxide as NO<sub>2</sub>

Nikunj D. Patel (Chemist)

Authorized By:

IS 5182 (Part-6)

Jaivik S. Tandel (Manager - Operations)

Page No.4

4.

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ISO 45001:2018 Certified Company

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

Chemical Te	esting	Name of Group	<b>Atmospheric Pollution</b>	
URAL/24/0	1/MSEL/A-003	Report Issue Date	20/01/2024	
UERL/AIR/S	RF/01/A-003	Service Request Date	10/01/2024	
UERL/AIR/I	D/01/A-003	Field Data Sheet No.	UERL/AIR/FDS/A-24/01/003	
Village Vanc	M/s. Mundra Solar Energy Limited Village Vandh & Tunda, Taluka Mundra, Mundra, Kutch 370 435, Gujarat. India.			
10/01/2024		Date of Testing	11/01/2024	
ng:	Near Occupationa	Health Center.		
Sampling Method		IS:5182(Part-14) and IS:5182 (Part-5)		
	URAL/24/02 UERL/AIR/S UERL/AIR/IE M/s. Mundr Village Vand Mundra, Ku 10/01/2024	URAL/24/01/MSEL/A-003         UERL/AIR/SRF/01/A-003         UERL/AIR/ID/01/A-003         M/s. Mundra Solar Energy Limi         Village Vandh & Tunda, Taluka N         Mundra, Kutch 370 435, Gujarat         10/01/2024         Near Occupationa	URAL/24/01/MSEL/A-003       Report Issue Date         UERL/AIR/SRF/01/A-003       Service Request Date         UERL/AIR/ID/01/A-003       Field Data Sheet No.         M/s. Mundra Solar Energy Limited       Village Vandh & Tunda, Taluka Mundra,         Vundra, Kutch 370 435, Gujarat. India.       10/01/2024         Date of Testing       Near Occupational Health Center.	

#### **Details of Master Instrument Used for Monitoring** $\triangleright$

Instrument ld No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date		
UERL/AIR/RDS/22	Respirable Dust Sampler	1745-DTB-2013 1151-DTB-2013	31/03/2023	30/03/2024		
UERL/AIR/FPS/22         Fine Particulate Sampler         129-DTB-2013         31/03/2023         30/03/2024						
General Sampling / Monitoring Observation as per CPCB Guideline						

#### 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>	m³/min	1.21
3.	Volume of Air Sampled for $PM_{10}$	m <sup>3</sup>	1742.4
4.	Volume of Air Sampled for PM <sub>2.5</sub>	m³	24.05

#### **Test Parameter Results**

 $\triangleright$ 

Sr. No.	Test Parameter	Unit	Result	Specific Value (As per NAAQMS)	Test Method
1.	Particulate Matter $PM_{10}$	μg/m³	74	100	IS 5182 (Part-23)
2.	Particulate Matter PM <sub>2.5</sub>	µg/m³	25	60	IS 5182 (Part-24)
3.	Sulphur Dioxide as SO <sub>2</sub>	µg/m³	17.3	80	IS 5182 (Part-22)
4.	Nitrogen Dioxide as NO <sub>2</sub>	µg/m³	24.1	80	IS 5182 (Part-6)

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

**Checked By:** 

Nikunj D. Patel (Chemist)

**Authorized By:** 

Jaivik S. Tandel (Manager - Operations)

Page No.5

Note: This report is subject to terms and conditions mentioned overleaf



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GPCB Recognized Environmental Auditor (Schedule-II)

ISO 9001 : 2015 Certified Company

ISO 45001:2018 Certified Company

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

			() (ITE				
Discip	oline.		Chemical Tes	sting	Name of Group	Atmospheric Pollution	
Test F	Report No.:		URAL/24/01	/MSEL/A-004	Report Issue Date	20/01/2024	
Servio	Service Request form No.: UERL/AIR/SF			F/01/A-004	Service Request Date	11/01/2024	
Samp	Sample ID No.: UERL/AIR/ID			/01/A-004	Field Data Sheet No.	UERL/AIR/FDS/A-24/01/004	
			M/s. Mundra	Solar Energy Limited			
			Village Vandh	& Tunda, Taluka Mundr	a,		
		-	Mundra, Kutcl	h 370 435, Gujarat. India	Э.		
Dates of Sampling: 11/01/2024			11/01/2024		Date of Testing	12/01/2024	
Locati	ocation of Sampling / Monitoring:			Near Village Vandh			
Sampling Method				IS:5182(Part-14) an	IS:5182(Part-14) and IS:5182 (Part-5)		
	Details of Ma	aster Instrum	nent Used for N	Ionitoring			
Insti	rument Id No.	Instrum	nent Name	Serial Number	Cali. Date	Next Cali. Date	
UER	UERL/AIR/RDS/27 Respirable Dust Sampler		Dust Sampler	1751-DTA-2013 1142-DTA-2013	31/03/2023	30/03/2024	
UER	RL/AIR/FPS/42	Fine Partic	ulate Sampler	125-DTD-2013	31/03/2023	30/03/2024	
	General Sam	pling / Moni	itoring Observa	tion as per CPCB Gui	deline	$\sim$	
Sr. No.		Description		Unit of measurement	Observation		
1.	Monitoring Du	ration	Environ	ment and Researc	n Labs PVI. Liu. 24		
2.	Flow Rate of PN	<b>M</b> 10		m³/min		1.25	
3.	Volume of Air Sampled for PM <sub>10</sub>		m <sup>3</sup>	1800.0			
4.	Volume of Air S	Sampled for I	PM2.5	m <sup>3</sup>	24.05		
×	Test Paramet	ter Results		·			
Sr. No.	Test Parar	meter	Unit	Result	Specific Value (As per NAAQMS)	Test Method	
1	Particulato Mat	tor DM.	ug/m <sup>3</sup>	07	100	IS 5192 (Dart 22)	

No.	lest Parameter	Unit	Result	(As per NAAQMS)	lest Method
1.	Particulate Matter PM <sub>10</sub>	µg/m³	82	100	IS 5182 (Part-23)
2.	Particulate Matter PM <sub>2.5</sub>	µg/m³	23	60	IS 5182 (Part-24)
3.	Sulphur Dioxide as SO <sub>2</sub>	µg/m³	12.8	80	IS 5182 (Part-22)
4.	Nitrogen Dioxide as NO <sub>2</sub>	µg/m³	21.4	80	IS 5182 (Part-6)

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

**Checked By:** 

Nikunj D. Patel (Chemist)

**Authorized By:** 

Jaivik S. Tandel (Manager - Operations)

Page No.6

Note: This report is subject to terms and conditions mentioned overleaf

# **ENVIRONMENTAL MONITORING REPORT**

Period: February-2024

FOR



## M/s. MUNDRA SOLAR PV LIMITED



**At** 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

QCI-NABET Accredited EIA Consultant Organization GPCB Recognized Environmental Auditor (Schedule-11) ISO 9001 : 2015 Certified Company ISO 45001 : 2018 Certified Company



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ISO 9001:2015 Certified Company ISO 45001:2018 **Certified Company** 

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

Discipline.	Chemical Tes	sting	Name of Group	Atmospheric Pollution		
Test Report No.:	URAL/24/02	/MSPVL/A-001	Report Issue Date	18/02/2024		
Service Request form No.:	UERL/AIR/SR	F/02/A-001	Service Request Date	15/02/2024		
Sample ID No.:	UERL/AIR/ID/	/02/A-001	Field Data Sheet No.	UERL/AIR/FDS/A-24/02/001		
Name & Add. of Customer	Village Vandh	<b>M/s. Mundra Solar PV Limited</b> Village Vandh & Tunda, Taluka Mundra, Mundra, Kutch 370 435, Gujarat. India.				
Dates of Sampling:	15/02/2024		Date of Testing	16/02/2024		
Location of Sampling / Monitoring:		Near Canteen Area.				
Sampling Method		IS:5182(Part-14) and IS:5182 (Part-5)				
Details of Master Instrument Used for Monitoring						

#### Instrument Id No. **Instrument Name** Serial Number Cali. Date Next Cali. Date 1744-DTA-2013 UERL/AIR/RDS/25 **Respirable Dust Sampler** 31/03/2023 30/03/2024 1127-DTJ-2012 UERL/AIR/FPS/51 137-DTD-2013 Fine Particulate Sampler 30/03/2024 31/03/2023 ≻

#### 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>	m³/min	1.30
3.	Volume of Air Sampled for $PM_{10}$	m³	1872.00
4.	Volume of Air Sampled for PM <sub>2.5</sub>	m³	24.05

#### **Test Parameter Results**

Sr. No.	Test Parameter	Unit	Result	Specific Value (As per NAAQMS)	Test Method
1.	Particulate Matter PM <sub>10</sub>	µg/m³	72	100	IS 5182 (Part-23)
2.	Particulate Matter PM <sub>2.5</sub>	µg/m³	21	60	IS 5182 (Part-24)
3.	Sulphur Dioxide as SO <sub>2</sub>	µg/m³	13.6	80	IS 5182 (Part-22)
4.	Nitrogen Dioxide as NO <sub>2</sub>	µg/m³	21.8	80	IS 5182 (Part-6)

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

**Checked By:** 

Nikunj D. Patel (Chemist)

**Authorized By:** 

Jaivik S. Tandel (Manager - Operations)

Page No.3

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#### TEST R (AMBIENT AIR MONITORING)

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EPORT	

Discip	oline.	Chemical Testing		Name of Group	Name of Group Atmospheric Pollution		
Test F	Report No.:	URAL/24/02/MS	PVL/A-002	Report Issue Date	18/02/2024		
Servio	ce Request form N	lo.: UERL/AIR/SRF/02	/A-002	Service Request Date	15/02/2024		
Samp	le ID No.:	UERL/AIR/ID/02/	A-002	Field Data Sheet No.	UERL/AIR/FDS/A-24/02/002		
		M/s. Mundra Sol	ar PV Limited				
Name & Add. of Customer Village Vandh & T		unda, Taluka Mundra	а,				
Mundra, Kutch 3			70 435, Gujarat. India				
Dates of Sampling: 15/02/2024				Date of Testing	16/02/2024		
Location of Sampling / Monitoring:			Near ETP Guard Bas	sin (MSTPL)			
Sampling Method			IS:5182(Part-14) and IS:5182 (Part-5)				
	Details of Mas	ter Instrument Used for Mo	nitoring				
Ins	trument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date		
UE	RL/AIR/RDS/27	Respirable Dust Sampler	1751-DTA-2013, 1142-DTA-2013	31/03/2023	30/03/2024		
UE	RL/AIR/FPS/42	Fine Particulate Sampler	125-DTD-2013	31/03/2023	30/03/2024		
Þ	General Sampl	ling / Monitoring Observation	on as per CPCB Guide	line	$\approx$		
Sr. No.	ſ	Description	Unit of measurement	Observation			
1.	Monitoring Dura	tion	H	24			
2.	Flow Rate of PM <sub>10</sub>		m³/min	1.26			
3.	Volume of Air Sampled for PM <sub>10</sub>		m <sup>3</sup>		1814.4		
4.	Volume of Air Sa	mpled for PM <sub>2.5</sub>	m <sup>3</sup>		24.05		
	Test Paramete		•				

Sr. No.	Test Parameter	Unit	Result	Specific Value (As per NAAQMS)	Test Method
1.	Particulate Matter PM <sub>10</sub>	μg/m³	78	100	IS 5182 (Part-23)
2.	Particulate Matter PM <sub>2.5</sub>	μg/m³	24	60	IS 5182 (Part-24)
3.	Sulphur Dioxide as SO <sub>2</sub>	μg/m³	15.3	80	IS 5182 (Part-22)
4.	Nitrogen Dioxide as NO <sub>2</sub>	μg/m³	23.6	80	IS 5182 (Part-6)

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

**Checked By:** 

Nikunj D. Patel (Chemist)

Authorized By:

Jaivik S. Tandel (Manager - Operations)

Page No.4

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#### TEST REPORT (AMBIEN

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NT	AIR	MONITORING)	

Discipline.	Chemical Te	esting	Name of Group	Atmospheric Pollution	
Test Report No.:	URAL/24/0	2/MSPVL/A-003	Report Issue Date	18/02/2024	
Service Request form No.:	UERL/AIR/S	RF/02/A-003	Service Request Date	15/02/2024	
Sample ID No.:	UERL/AIR/II	D/02/A-003	Field Data Sheet No.	UERL/AIR/FDS/A-24/02/003	
Name & Add. of Customer	Village Vand	M/s. Mundra Solar PV Limited Village Vandh & Tunda, Taluka Mundra, Mundra, Kutch 370 435, Gujarat. India.			
Dates of Sampling:	15/02/2024	Ļ	Date of Testing	16/02/2024	
Location of Sampling / Monitoring:		Near Occupational Health Center.			
Sampling Method		IS:5182(Part-14) and IS:5182 (Part-5)			

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

Instrument ld No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date		
UERL/AIR/RDS/22	Respirable Dust Sampler	1745-DTB-2013	21/02/2022	20/02/2024		
UERL/AIR/RD3/22	Respirable Dust Sampler	1151-DTB-2013	31/03/2023	30/03/2024		
UERL/AIR/FPS/22	Fine Particulate Sampler	129-DTB-2013	31/03/2023	30/03/2024		
General Sampling / Monitoring Observation as per CPCB Guideline						

#### 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>	m³/min	1.28
3.	Volume of Air Sampled for $PM_{10}$	m <sup>3</sup>	1843.2
4.	Volume of Air Sampled for PM <sub>2.5</sub>	m³	24.05

#### **Test Parameter Results**

Sr. No.	Test Parameter	Unit	Result	Specific Value (As per NAAQMS)	Test Method
1.	Particulate Matter PM <sub>10</sub>	µg/m³	68	100	IS 5182 (Part-23)
2.	Particulate Matter PM <sub>2.5</sub>	µg/m³	22	60	IS 5182 (Part-24)
3.	Sulphur Dioxide as SO <sub>2</sub>	µg/m³	15.4	80	IS 5182 (Part-22)
4.	Nitrogen Dioxide as NO <sub>2</sub>	µg/m³	20.6	80	IS 5182 (Part-6)

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

**Checked By:** 

Nikunj D. Patel (Chemist)

Authorized By:

Jaivik S. Tandel (Manager - Operations)

UERL/AIR/F-05/05

Page No.5

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Laboratory u	under the	EPA-1986 (31.0	(3.2023 to 22.09.2024)	(

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Environmental ISO 9001 : 2015 a e d u l e -II) Certified Company ISO 45001 : 2018 Certified Company

#### TEST REPORT (AMBIENT AIR MONITORING)

					110)		
Discipline. Chemical Tes		sting	Name of Group	Atmospheric Pollution			
Test Report No.: URAL/24/02/			URAL/24/02	/MSPVL/A-004	Report Issue Date	18/02/2024	
Service	e Request form	No.:	UERL/AIR/SR	F/02/A-004	Service Request Date	16/02/2024	
Sample ID No.: UERL/AIR/ID			UERL/AIR/ID,	/02/A-004	Field Data Sheet No.	UERL/AIR/FDS/A-24/02/004	
M/s. Mundra		Solar PV Limited					
Name 8	& Add. of Custo	omer	Village Vandh	& Tunda, Taluka Mundr	a,		
			Mundra, Kutch	n 370 435, Gujarat. India	1.		
Dates o	of Sampling:		16/02/2024		Date of Testing	17/02/2024	
Location of Sampling / Monitoring:				Near Village Vandh			
Sampli	Sampling Method			IS:5182(Part-14) and IS:5182 (Part-5)			
≻	Details of Ma	aster Instrum	ent Used for N	Ionitoring			
Instru	ument Id No.	Instrum	ent Name	Serial Number	Cali. Date	Next Cali. Date	
UERL,	/AIR/RDS/27	Respirable I	Dust Sampler	1751-DTA-2013 1142-DTA-2013	31/03/2023	30/03/2024	
UERL,	/AIR/FPS/42	Fine Particu	late Sampler	125-DTD-2013	31/03/2023	30/03/2024	
$\triangleright$	General Sam	pling / Monit	oring Observa	tion as per CPCB Gui	deline	$\sim$	
Sr. No.	Description		Unit of measurement	Observation			
1.	Monitoring Du	ration	Environ	ment and Kesearc	n Labs Pvi. Lio. 🥯	24	
2.	Flow Rate of PN	<b>M</b> 10		m³/min		1.32	
3.	Volume of Air S	Sampled for P	M <sub>10</sub>	m <sup>3</sup>	1900.8		

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

m³

Result

82

21

16.4

26.3

Unit

µg/m³

µg/m³

μg/m<sup>3</sup>

µg/m³

**Checked By:** 

Volume of Air Sampled for PM<sub>2.5</sub>

**Test Parameter Results** 

**Test Parameter** 

Particulate Matter PM<sub>10</sub>

Particulate Matter PM<sub>2.5</sub>

Nitrogen Dioxide as NO<sub>2</sub>

Sulphur Dioxide as SO<sub>2</sub>

Nikunj D. Patel (Chemist)

Authorized By:

**Test Method** 

IS 5182 (Part-23)

IS 5182 (Part-24) IS 5182 (Part-22)

IS 5182 (Part-6)

24.05

**Specific Value** 

(As per NAAQMS)

100

60

80

80

Jaivik S. Tandel (Manager - Operations)

Page No.6

4.

Sr.

No.

1.

2.

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4.

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Note: This report is subject to terms and conditions mentioned overleaf

# **ENVIRONMENTAL MONITORING REPORT**

Period: March -2024

FOR



# M/s. Mundra Solar Energy Limited



**At** 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

QCI-NABET Accredited EIA Consultant Organization GPCB Recognized Environmental Auditor (Schedule-11) ISO 9001 : 2015 Certified Company ISO 45001 : 2018 Certified Company



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**GPCB** Recognized Environmental Auditor (Schedule-II)

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

-		
-		

Chemical Testing		Name of Group	<b>Atmospheric Pollution</b>
URAL/24/03/	MSEL/A-001	Report Issue Date	22/03/2024
UERL/AIR/SRF	/03/A-001	Service Request Date	16/03/2024
UERL/AIR/ID/	03/A-001	Field Data Sheet No.	UERL/AIR/FDS/A-24/03/001
M/s. Mundra Solar Energy Limited Village Vandh & Tunda, Taluka Mundra, Mundra, Kutch 370 435, Gujarat. India.			
16/03/2024		Date of Testing	18/03/2024
5:	Near Canteen Are	a.	
IS:5182(Part-14) and IS:5182 (Part-5)			
	URAL/24/03/ UERL/AIR/SRF UERL/AIR/ID/ M/s. Mundra Village Vandh Mundra, Kutc 16/03/2024	URAL/24/03/MSEL/A-001         UERL/AIR/SRF/03/A-001         UERL/AIR/ID/03/A-001         M/s. Mundra Solar Energy Limite         Village Vandh & Tunda, Taluka Mu         Mundra, Kutch 370 435, Gujarat.         16/03/2024         g:         Near Canteen Area	URAL/24/03/MSEL/A-001     Report Issue Date       UERL/AIR/SRF/03/A-001     Service Request Date       UERL/AIR/ID/03/A-001     Field Data Sheet No.       M/s. Mundra Solar Energy Limited     Village Vandh & Tunda, Taluka Mundra,       Village Vandh & Tunda, Taluka Mundra,     India.       16/03/2024     Date of Testing       g:     Near Canteen Area.

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

Instrument ld No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date	
UERL/AIR/RDS/25	Respirable Dust Sampler	1744-DTA-2013 1127-DTJ-2012	31/03/2023	30/03/2024	
UERL/AIR/FPS/51	Fine Particulate Sampler	137-DTD-2013	31/03/2023	30/03/2024	
General Sampling / Monitoring Observation as per CPCB Guideline					

#### 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>	m³/min	1.25
3.	Volume of Air Sampled for $PM_{10}$	m <sup>3</sup>	1800.0
4.	Volume of Air Sampled for PM <sub>2.5</sub>	m <sup>3</sup>	24.05

#### **Test Parameter Results**

Sr. No.	Test Parameter	Unit	Result	Specific Value (As per NAAQMS)	Test Method
1.	Particulate Matter PM <sub>10</sub>	µg/m³	74	100	IS 5182 (Part-23)
2.	Particulate Matter PM <sub>2.5</sub>	µg/m³	22	60	IS 5182 (Part-24)
3.	Sulphur Dioxide as SO <sub>2</sub>	µg/m³	14.1	80	IS 5182 (Part-22)
4.	Nitrogen Dioxide as NO <sub>2</sub>	µg/m³	22.2	80	IS 5182 (Part-6)

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

**Checked By:** 

Nikunj D. Patel (Chemist)

**Authorized By:** 

Jaivik S. Tandel (Manager - Operations)

UERL/AIR/F-05/05

Page No.3

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Environmental ISO 9001 : 2015 e d u l e -II) Certified Company ISO 45001 : 2018 Certified Company

#### TEST REPORT (AMBIENT AIR MONITORING)

					0)		
Discip	oline.		Chemical Testing		Name of Group	Atmospheric Pollution	
Test F	Report No.:		URAL/24/03/MS	EL/A-002	Report Issue Date 22/03/2024		
Servi	ce Request form N	lo.:	UERL/AIR/SRF/03	/A-002	Service Request Date 16/03/2024		
Samp	le ID No.:		UERL/AIR/ID/03/	A-002	Field Data Sheet No.	UERL/AIR/FDS/A-24/03/002	
			M/s. Mundra Sol	ar Energy Limited			
		<sup>-</sup> unda, Taluka Mundra	а,				
			Mundra, Kutch 370 435, Gujarat. India.				
Dates	of Sampling:		16/03/2024		Date of Testing	18/03/2024	
Locat	ion of Sampling / N	Monitorin	g:	Near ETP Guard Bas	sin (MSTPL)	·	
Samp	npling Method			IS:5182(Part-14) an	nd IS:5182 (Part-5)		
>	Details of Mas	ter Instru	ment Used for Mo	nitoring			
Ins	trument Id No.	Inst	rument Name	Serial Number	Cali. Date	Next Cali. Date	
UE	RL/AIR/RDS/27	Respira	ble Dust Sampler	1751-DTA-2013, 1142-DTA-2013	31/03/2023 30/03/2024		
UE	RL/AIR/FPS/42	Fine Pa	rticulate Sampler	125-DTD-2013	31/03/2023	30/03/2024	
7	General Sampl	ling / Moi	nitoring Observatio	on as per CPCB Guide	line	$\approx$	
Sr. No.	ſ	Descriptio	n Environm	Unit of measurement	O	oservation	
1.	Monitoring Dura	tion	LINIUIII	H H H	24		
2.	Flow Rate of PM <sub>10</sub>		m³/min	1.22			
3.	Volume of Air Sampled for PM <sub>10</sub>		m <sup>3</sup>		1756.8		
4.	Volume of Air Sa	mpled for	PM <sub>2.5</sub>	m <sup>3</sup>	24.05		
7	Test Paramete	r Results			·		
Sr. No.	Test Parame	eter	Unit	Result	Specific Value (As per NAAQMS)	Test Method	

Sr. No.	Test Parameter	Unit	Result	Specific Value (As per NAAQMS)	Test Method
1.	Particulate Matter $PM_{10}$	μg/m³	80	100	IS 5182 (Part-23)
2.	Particulate Matter PM <sub>2.5</sub>	μg/m³	26	60	IS 5182 (Part-24)
3.	Sulphur Dioxide as SO <sub>2</sub>	μg/m³	16.2	80	IS 5182 (Part-22)
4.	Nitrogen Dioxide as NO <sub>2</sub>	μg/m³	24.5	80	IS 5182 (Part-6)

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

**Checked By:** 

Nikunj D. Patel (Chemist)

Authorized By:

Jaivik S. Tandel (Manager - Operations)

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GPCB Recognized Environmental Auditor (Schedule-II)

ISO 9001:2015 Certified Company ISO 45001:2018 **Certified Company** 

#### TEST (AMBIENT AIR MONITORING)

Discipline.	Chemical Te	sting	Name of Group	<b>Atmospheric Pollution</b>
Test Report No.:	URAL/24/03	/MSEL/A-003	Report Issue Date	22/03/2024
Service Request form No.:	UERL/AIR/SR	F/03/A-003	Service Request Date	16/03/2024
Sample ID No.:	UERL/AIR/ID	/03/A-003	Field Data Sheet No.	UERL/AIR/FDS/A-24/03/003
Name & Add. of Customer	Village Vand	<b>M/s. Mundra Solar Energy Limited</b> Village Vandh & Tunda, Taluka Mundra, Mundra, Kutch 370 435, Gujarat. India.		
Dates of Sampling:	16/03/2024	16/03/2024 Date of Te		18/03/2024
Location of Sampling / Monitor	ing:	Near Occupational	Health Center.	
Sampling Method		IS:5182(Part-14) an	d IS:5182 (Part-5)	

#### $\triangleright$ **Details of Master Instrument Used for Monitoring**

Instrument ld No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date		
UERL/AIR/RDS/22	Respirable Dust Sampler	1745-DTB-2013	31/03/2023	30/03/2024		
	Respirable Dust Sampler	1151-DTB-2013	51/05/2025	50/05/2024		
UERL/AIR/FPS/22         Fine Particulate Sampler         129-DTB-2013         31/03/2023         30/03/2024						
General Sar	Seneral Sampling / Monitoring Observation as per CPCB Guideline					

#### 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>	m³/min	1.23
3.	Volume of Air Sampled for $PM_{10}$	m <sup>3</sup>	1771.2
4.	Volume of Air Sampled for PM <sub>2.5</sub>	m³	24.05

#### **Test Parameter Results**

Sr. No.	Test Parameter	Unit	Result	Specific Value (As per NAAQMS)	Test Method
1.	Particulate Matter PM <sub>10</sub>	µg/m³	65	100	IS 5182 (Part-23)
2.	Particulate Matter PM <sub>2.5</sub>	µg/m³	21	60	IS 5182 (Part-24)
3.	Sulphur Dioxide as SO <sub>2</sub>	µg/m³	13.6	80	IS 5182 (Part-22)
4.	Nitrogen Dioxide as NO <sub>2</sub>	µg/m³	19.6	80	IS 5182 (Part-6)

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

**Checked By:** 

Nikunj D. Patel (Chemist)

Authorized By:

Jaivik S. Tandel (Manager - Operations)

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#### тгст

Auditor	(Schedule-I

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	IESI	REPORT	
(AMBIEN	Γ AIR	MONITOR	ING)

Discipline.		Chemical Tes	sting	Name of Group	Atmospheric Pollution	
Test Report No.:		URAL/24/03	/MSEL/A-004	Report Issue Date	22/03/2024	
Service Request form	No.:	UERL/AIR/SR	F/03/A-004	Service Request Date	16/03/2024	
Sample ID No.:		UERL/AIR/ID,	/03/A-004	Field Data Sheet No.	UERL/AIR/FDS/A-24/03/004	
M/s. Mundra Solar E			Solar Energy Limited			
Name & Add. of Custo	omer	Village Vandh & Tunda, Taluka Mundra,				
		Mundra, Kutch 370 435, Gujarat. India.				
Dates of Sampling:		16/03/2024		16/03/2024 Date of Testing 18/03/2024		
Location of Sampling	n of Sampling / Monitoring: Near Village Vandh					
Sampling Method IS:5182(Part-14) and IS:5182 (Part-5)						
Details of Ma	aster Instrum	ent Used for N	Ionitoring			
Instrument Id No.	Instrum	ent Name	Serial Number	Cali. Date Next Cali. Date		
UERL/AIR/RDS/27	Respirable I	Dust Sampler	1751-DTA-2013 1142-DTA-2013	31/03/2023 30/03/2024		
UERL/AIR/FPS/42	Fine Particu	late Sampler	125-DTD-2013	31/03/2023 30/03/2024		
General Sam	pling / Monit	oring Observa	tion as per CPCB Gui	deline		
Sr. Description		Unit of measurement	Observation			
1. Monitoring Duration		ment ann Researd	12805 PVI. 210. 24			
2. Flow Rate of PM <sub>10</sub>		m³/min	1.24			
3. Volume of Air Sampled for PM <sub>10</sub>		m <sup>3</sup>	1785.6			
4. Volume of Air Sampled for PM <sub>2.5</sub>			m <sup>3</sup>	24.05		
> Test Parameter Results						

Sr. **Specific Value Test Method Test Parameter** Unit Result (As per NAAQMS) No. μg/m<sup>3</sup> 77 IS 5182 (Part-23) 1. Particulate Matter PM<sub>10</sub> 100 2. Particulate Matter PM<sub>2.5</sub> µg/m³ 23 60 IS 5182 (Part-24) Sulphur Dioxide as SO<sub>2</sub> 15.3 IS 5182 (Part-22) 3. μg/m<sup>3</sup> 80 Nitrogen Dioxide as NO<sub>2</sub> μg/m<sup>3</sup> 25.1 80 IS 5182 (Part-6) 4.

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

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Jaivik S. Tandel (Manager - Operations)

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