

Ref: Solar/EC/RO/(WCZ) MoEF/2023-24/02

Date 27.11.2023

To,
The Dy. Director,
Regional Office (WCZ)
Ground Floor, East Wing
New Secretariat Building
Civil Lines, Nagpur 440 001

Sub: Submission of Six- Monthly Compliance Report (Apr'2023 -Sept'2023) as per Sce.10 of EIA notification dated 14th September,2006.

Ref: (i) EC via F. No. J-11011/28/2017-IA II (I) dated 7th June 2019.
(ii) Your Letter No. EC-1047/RON/2019-NGP/5587 Dated 06.08.2019.
(iii) MoEF &CC letter F. No. J-11011/282017-IA9I) dated 07.07.2019

Dear Sir,

In order to comply EIA Notification as well as subsequent OM for grant of prior EC for proposed expansion we are submitting herewith latest status of 6-monthly compliance report for the period April'2023 - September,2023 for your kind perusal and ready reference.

The details of production capacities for past two years are mentioned in the Sr. No. 13.4.

This supersedes the earlier submission of 6-monthly compliance report for the same period.

Thanking You,

For, Solar Industries India Limited



(Dr. S. K. Sharma)

Authorized Signatory

Enclosed: As above

Solar Industries India Limited

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Six Monthly Compliance Status Report

(Annexeure-1)

Name of Project : Modernization and Expansion of Explosives and Defense products manufacturing plant by M/s Solar Industries India Limited at Village -Chakdoh, P.O. - Bazargaon Tehsil- Katol, District- Nagpur 440 023 (Maharashtra)

EC Letter No. : F. No. J-11011/28/2017-IA II (I) MoEF CC, IA Division, New Delhi Dated 7th Jun,2019

Period of Compliance : April '2023 to September' 2023

S. No./ Cond. No.	Terms & Conditions	Compliance Status
10.(a)	Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.	Existing Consent to Operate obtained from MPCB, Mumbai vide Consent Order No. Format 1.0/BO/CAC/UAN No. 00000119394/CR-2201001112 dated 25.1.2022 and Valid up to 30.06.2026.
10.(b)	Necessary permission from the Ministry of Defense and/or other statutory authorities shall be obtained for manufacturing products of their use.	Permission from Ministry of Commerce & Industry (DIPP), New Delhi has been obtained. Details of DIPP licence already submitted in earlier compliance. Application for expansion of production capacities of PETN , Cast Booster, HMX and TNT have been submitted to DIPP. Production for the period April,2023 to September,2023 enclosed Annexure-1 .
10.(c)	Storage of different raw materials and/or the finished products shall be as decided by the PESO and the permission granted in this regard.	Permission for storage shed of different raw material and finished products have been granted by PESO & District Magistrate. These license capacities are mentioned with respective production facilities.
10.(d)	As already committed by the project proponent, Zero Liquid Discharge shall be ensured, and no waste/treated water shall be discharged outside the premises.	Effluent treatment plant facilities have been installed and treated water is recycled within the factory premises to ensure compliance condition of Zero Liquid Discharge (ZLD).
10.(e)	Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained. The provisions contained therein for handling, generation, collection, storage, packaging, transportation, use, treatment, processing, recycling, recovery, pre-processing, utilization, offering for sale, transfer, or disposal of hazardous waste, shall be strictly adhered to.	Authorization included in the MPCB Consent Order No. Format 1.0/BO/CAC/UAN No. 00000119394/CR-2201001112 dated 25.1.2022 and Valid up to 30.06.2026. Disposal of hazardous waste is being done at the CHWTSDF of Maharashtra Enviro Power Ltd. Butibori, Nagpur and manifest uploaded online at the MPCB portal. Annual Return (Form-4) submitted to the MPCB.
10.(f)	No raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used for production of pesticides.	Not applicable. There is no plan for production of Pesticides.
10.(g)	National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21 st July,2010 and amended from time to time shall be followed.	National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21 st July,2010 and amended, being followed. Monitoring of emission is being conducted periodically. Monitoring Report for September,2023 enclosed.

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Period of Compliance : April '2023 to September' 2023

10.(h)	Coal with Sulphur content less than 0.5% shall be used as fuel in the boiler, along with biofuel/ briquettes/ bagasse/ agro- waste.	Coal and briquettes used as fuel and analyzed, for Sulphur content.
10.(i)	To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.	Online AAQ monitoring station installed at the upwind & downwind direction of the plant. Wet Scrubbers have been installed in the processes to mitigate fugitive emissions. monitoring at the 3 stations being carried out and meeting the NAAQS norms. Suitable stack height has been provided.
10.(j)	Solvent management shall be carried out as follows:	Solvent management is being carried out as follows:
10.J.(i)	Reactor shall be connected to chilled brine condenser system.	Complied.
10.J.(ii)	Reactor and solvent handling pump shall have mechanical seals to prevent leakages.	Complied.
10.J.(iii)	The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.	Complied.
10.J.(iv)	Solvents shall be stored in a separate space specified with all safety measures.	Complied.
10.J.(v)	Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.	Complied.
10.J.(vi)	Entire plant shall be flame-proof. The solvent storage tanks shall be provided with breather valve to prevent losses.	Complied.
10.J.(vii)	All the solvent storage tanks shall be connected, with vent condensers with chilled brine circulation.	Complied.
10.(k)	Total freshwater requirement shall not exceed 471 cum/day, out of which 430 cum/day shall be met from ground water, and the remaining from surface water resource. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.	CGWB NOC for 902 CMD obtained. Surface water resources have been developed. Permission for additional water requirement for proposed expansion products shall be obtained from CGWA.
10.(l)	Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system.	Complied. There is separate drain provided for wastewater and storm water.
10.(m)	Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.	Hazardous chemicals are being stored in tanks, tank farms, drums, carboys etc. No Flammable chemical is stored in the tank farm. Solvent transferring is done through diaphragm pumps.
10.(n)	Process organic residue and spent carbon, if any, shall be sent to cement industries.	There is no generation of process organic residue/spent carbon or process inorganic &

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Period of Compliance : April '2023 to September' 2023

	ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.	evaporation salt. Industry has membership of MEPL. ETP sludge is disposed to CHWTSDF.
10.(o)	The project proponent shall strictly comply with the manufacture, Storage, and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended from time to time. Accordingly, the units shall prepare and update safety report, onsite emergency plan, supply of information relating to the industrial activity under his control to the District Emergency Authority for preparation of offsite Emergency Plan, etc. Schedule-5 of the Said Rules prescribes the list of Authorities and its corresponding duties. The transportation of all hazardous chemicals shall be as per the Motor Vehicle Act, 1989.	Complied with manufacture, Storage, and Import of Hazardous Chemicals (MSIHC) Rules, 1989. On site Emergency plan as amended already submitted to District Magistrate, Nagpur. Transportation of hazardous chemicals being carried out according to Motor Vehicle Act, 1989.
10.(p)	Fly ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality. Direct exposure of workers to fly ash & dust should be avoided.	Fly ash is stored separately to avoid direct exposure of workers to fly ash & dust.
10.(q)	The company shall undertake waste minimization measures as below:	The company is undertaking waste minimization measures as below:
10.(q). i	Metering and control of quantities of active ingredients to minimize waste.	Metering and control of ingredients quantity is ensured by flow meter & Load & cell system provided in the processes.
10.(q). ii	Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.	By-products from the process viz. week nitric acid is used as raw material in other processes.
10.(q). iii	Use of automated filling to minimize spillage.	Automated filling and transferring arrangement have been provided.
10.(q). iv	Use of Close Feed system into batch reactors.	Closed feeding (Vacuum feeding) system is provided into batch reactors.
10.(q). v	Venting equipment through vapour recovery system.	Venting equipment is connected through vapor recovery system.
10.(q). vi	Use of high- pressure hoses for equipment clearing to reduce wastewater generation.	Complied.
10.(r)	The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along roadsides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.	Existing green belt cover of 10- meter width has been developed in more than 33% area. The additional green belt will be developed in the periphery, in the additional acquired land. The selection of plantation species has been done in consultation with Horticulture Consultant.
10.(s)	All the commitments made to the public during public hearing/consultation shall be satisfactorily implemented.	All the commitments made during public hearing/consultation meeting dated 28.12.2017 are being implemented satisfactorily. Compliance already submitted.

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10.(t)	As committed by the project proponent monitoring stations shall be installed in nearby villages to monitor the vibrations due to blasting.	Monitoring of vibrations during blasting is carried out periodically.
10.(u)	As committed by the project proponent ground vibrations shall be reduced to NIL.	It was already clarified that it will be not possible to reduce the ground vibrations to Nil, however, efforts have been done to minimize vibrations during blasting. There is no population in the surrounding of the blasting site.
10.(v)	At least 1.5% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.	CSR allocation has been done @ 2% of average profit. Actual expenditure incurred Rs. 33.5 Cr during last 5 years. CSR expenses for FY 2022-23 was Rs. 5.825 Cr.
10.(w)	For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.	Stacks height is conforming to the CPCB guideline. The DG sets conforms to the Environmental (Protection) Rules, 1986 and certified as 'Silent DG set' and Noise Limit is 75 dB(A) Log Average at 1- meter distance.
10.(x)	The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.	The industry has made necessary arrangement for protection of possible fire hazards during manufacturing process and material handling. A well-equipped Fire- fighting station with Fire Tender, and experienced Fire-fighters has been provided.
10.(y)	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	An Occupation Health Center (OHC) is available. Occupational Health surveillance of the employees is being carried out on a regular basis and records are maintained as per the Factories Act in Form-7.
10.(z)	Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.	Continuous online monitoring system (OCEMS) for stack emissions has been installed at 12 TPH Boiler. For online continuous monitoring of effluent, ph meter and digital flow meters with provision of web camera with night vision capability has been installed. <i>This is to mention that there is no discharge of treated wastewater outside premises and ZLD condition is complied.</i>
10.(aa)	Process safety and risk assessment studies shall be further carried out using advanced models, and the mitigating measures shall be undertaken accordingly.	Process safety and risk assessment studies were conducted by CFD Consequence Analysis Studies by GEXCON, India Pvt. Ltd. and report already submitted to the MoEF. Process safety risk assessment is being carried out periodically, and mitigations measures are being ensured as and when required.

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Period of Compliance : April '2023 to September' 2023

10.(bb)	The unit shall comply with the provisions of the Public Liability Insurance Act, 1991 and get the insurance policy under the said Act to ensure immediate relief to the persons affected by accident occurring while handling any hazardous substance.	Industry is complying with the provisions of the Public Liability Insurance Act, 1991 and obtained Public Liability Act Policy No. 2302002723P106826245 duly renewed for the period 16.09.2023 to 15.09.2024.
10.1 (i)	The project authorities must strictly adhere to the stipulations made by the state Pollution Control Board (SPCB), State Government and/or any other statutory authority.	Industry is committed to adhere the stipulations made by the Maharashtra Pollution Control Board (MPCB), State Government and/or any other statutory authority.
10.1 (ii)	No further expansions or modifications in the plant shall be carried out without prior approval of the Ministry. In case of deviations or alterations in the project proposal from those submitted to the Ministry. A fresh reference shall be made to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	<i>Industry has acquired additional land non-Forest 18.783 Ha & Forest Land 87.97 Ha for expansion of proposed plant capacities.</i> Construction of some of the additional stores have been carried out. Application for grant of EC for expansion of existing production capacity will be submitted to MoEF for prior approval of proposed expansion.
10.1 (iii)	The location of ambient air quality monitoring stations shall be decided in consultation with the State Pollution Control Board (SPCB) and it shall be ensured that at least one stations is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.	There are 3 stations for ambient air quality monitoring and same has been already approved by MPCB. Monitoring of AAQ is conducted by NABL approved laboratory and report is being submitted to the MPCB. Online AAQ stations at upwind and down wind direction of the plant has been installed.
10.1 (iv)	The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826 (E) dated 16.11.2009 shall be complied with.	Complied. Periodic monitoring being conducted, and results are well within the standards.
10.1 (v)	The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).	The noise levels in and around the plant area being maintained \leq 75 dBA (during day- time) and \leq 70 dBA (during night- time) according to the Environment (Protection) Act, 1986 Rules, 1989. There is no major source of Noise pollution in the industrial process. The DG sets (Powerica) conforms to the Environmental (Protection) Rules, 1986 and certified as 'Silent DG set' and Noise Limit is 75 dB(A) Log Average at 1-meter distance. The Monitoring of Noise level is being done regularly in house as well as by NABL approved monitoring agency.
10.1 (vi)	The company shall harvest rainwater from the roof tops of the buildings and storm water drains to discharge the ground water and utilized the same for different industrial operations within the plant.	RWH system implemented.

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Period of Compliance : April '2023 to September' 2023

10.1 (vii)	Training shall be imparted to all the employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.	Training is being imparted to all the employees on the safety and health aspect of chemicals handling. Pre-employment and routine periodical medical examinations for all employees is being undertaken on regular basis and training record is maintained.
10.1 (viii)	The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, risk mitigation measures and public hearing shall be implemented.	The industry is complying with all the environmental protection measures and safeguards proposed in the document submitted to the Ministry. EIA/EMP in respect of environmental management, risk mitigation measures and public hearing dated 28 th Dec,2017 is being implemented.
10.1 (ix)	The company shall undertake all measures for improving socio-economic conditions of the surrounding area. CSR activities shall be undertaken by involving local villagers, administration, and other stake holders. Also, eco-developmental measures shall be undertaken for overall improvement of the environment.	The industry is already taking necessary measures for improving socio-economic conditions of the surrounding area. CSR activities conducted in consultation with local villagers.
10.1 (x)	A separate Environmental Management Cell equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.	Environmental Management Cell has been formed. A full-fledged laboratory facility to carry out the Environmental Management and Monitoring functions has been set up.
10.1 (xi)	The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest, and climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/Pollution Control Measures shall not be diverted for any other purpose.	industry is committed to implement the conditions stipulated by the Ministry of Environment, Forest, and climate Change as well as by the State Government along with the implementation schedule for all the conditions stipulated. Provision of sufficient funds has been earmarked for environment management/ Pollution Control Measures and will not be diverted for any other purpose.
10.1 (Xii)	A copy of clearance letter shall be sent by the project proponent to concern Panchayat, Zila Parishad/ Municipal corporation, Urban local body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the Proposal.	A copy of Environmental Clearance letter has been sent to local body and Gram Panchayat Ringanabodi, Bazargaon vide letter No. Solar/ EC/2019-20/07 dated 09.07.2019.
10.1 (xiii)	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective	Complied.

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	regional office of MoEF & CC, the respective Zonal office of CPCB and SPCB. A copy of Environmental clearance and six- monthly compliance status report shall be posted on the website of the company.	
10.1(xiv)	The environmental statement for each financial year ending 31 st March in Form-V is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986 as amended subsequently, shall also be put on the website of the company along with the status of compliance of environment clearance conditions and shall also be sent to the respective regional office of MoEF &CC by e-mail.	The environmental statement for financial year ending 31 st March,2023 in Form-V is submitted online portal of Maharashtra Pollution Control Board. Compliance of environment clearance conditions has been sent to the regional office of MoEF &CC by e-mail .
10.1 (xv)	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be sent at website of the Ministry at http://moef.nic.in This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.	The project proponent has been published in newspaper for information to the public that the project has been accorded environmental clearance by the Ministry. The News has been published in Navbharat (Hindi), Daink Bhaskar (Hindi) that are widely circulated in the region and in the Deshonnati (Marathi) daily newspaper. Copies of News already submitted to the Regional Office, MoEF CC, Nagpur.
11.	The Ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a time bound manner. The Ministry may revoke or suspend the environmental clearance, if implementation of any of the above conditions is not found satisfactory.	Admitted and compliance will be ensured.
12.	The above conditions will be enforced, inter-alia under the provisions of the water (Prevention & control of Pollution) Act, 1974, the Air (Prevention & control of water Pollution) Act, 1981, the Environment (Protection) Act 1986, the Hazardous waste (Management, Handling and Trans-boundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991, read with subsequent amendments therein.	Admitted and compliance will be ensured.

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Period of Compliance : April '2023 to September' 2023

13.0 Additional Disclosure:

S. No.	Terms & Conditions	Compliance Status																
13.1	Additional Land:	<p>Industry has acquired additional land as follows:</p> <table border="1"> <tr> <td>Non-Forest Land</td> <td>18.783 Ha</td> </tr> <tr> <td>Forest Land</td> <td>87.97 Ha</td> </tr> <tr> <td>a. Total additional Land</td> <td>106.753</td> </tr> <tr> <td>b. Existing Land</td> <td>110.847 ha</td> </tr> <tr> <td>Total (a+b)</td> <td>217.600 Ha</td> </tr> </table> <p>Application for expansion of production capacity and modification in existing products will be submitted to MoEF.</p>	Non-Forest Land	18.783 Ha	Forest Land	87.97 Ha	a. Total additional Land	106.753	b. Existing Land	110.847 ha	Total (a+b)	217.600 Ha						
Non-Forest Land	18.783 Ha																	
Forest Land	87.97 Ha																	
a. Total additional Land	106.753																	
b. Existing Land	110.847 ha																	
Total (a+b)	217.600 Ha																	
13.2	Amendment in Industrial Licenses:	<p>Industry have obtained amendment in Industrial License from DPIIT, New Delhi as follows:</p> <ol style="list-style-type: none"> Slurry & Emulsion Explosives from 1,21,000 MTPA to 2,00,000 MTPA vide CIL:32(2003)(2017)/2018 Amendment dated 29th Oct,2018. PETN & Cast booster from 3000 MTPA to 4500 MTPA vide CIL:32(2003)(2017)/2022 Amendment dated 19th Sept,2022. Further applied to DPIIT, New Delhi for enhancement of Industrial Licence of HMX/HMX compound 4000 MTPA, PETN 3500 MTPA, PETN 3500 MTPA, Cast Booster 5000 MTPA. 																
13.3	Grant of Consent to Establish (Expansion) under Red/LSI:	<p>Industry have been obtained Consent to Establish from MPCB, for expansion of production capacities vide letter No. Format1.0/CAC/UAN No.0000171786/CE-2307000576 dated 11.07.2023</p>																
13.4	Enhancement in Production capacity:	<p>The production capacity of some of the products were increased during FY 2021-22 & 2022-23 due to demand in defense sector.</p> <table border="1"> <thead> <tr> <th>Products</th> <th>Unit</th> <th>FY 2021-22</th> <th>FY 2022-23</th> </tr> </thead> <tbody> <tr> <td>Slurry & Emulsion Explosives</td> <td>MT</td> <td>10780.105</td> <td>13201.392</td> </tr> <tr> <td>PETN</td> <td>MT</td> <td>55.80</td> <td>682.800</td> </tr> <tr> <td>Cast Booster</td> <td>MT</td> <td>--</td> <td>924.475</td> </tr> </tbody> </table> <p>Note : The details of production capacities for last 2 year 2021-22 and 2022-23 enclosed as Annexure-2</p> <p>PESO approval for enhancement of annual manufacturing capacity to the extent of 25% for the respective financial year have been obtained from PESO in view of Ministry of Industry, New Delhi Press Note No.13(4) Lic. Pol./70 dated 18.01.1970 & DPIIT, New Delhi letter No. P13033/2/2019-Explosives dated 12.03.2020.</p> <p>Industry is applying for proposed expansion for prior Environmental clearance and have voluntary disclosed these production capacities in the EC application.</p>	Products	Unit	FY 2021-22	FY 2022-23	Slurry & Emulsion Explosives	MT	10780.105	13201.392	PETN	MT	55.80	682.800	Cast Booster	MT	--	924.475
Products	Unit	FY 2021-22	FY 2022-23															
Slurry & Emulsion Explosives	MT	10780.105	13201.392															
PETN	MT	55.80	682.800															
Cast Booster	MT	--	924.475															

For, Solar Industries India Limited

Enclosed: As above


 (Dr. S.K. Sharma)
 Authorized Signatory

SOLAR INDUSTRIES INDIA LIMITED

Production for the Period Apr-2021 to Sep,2021

Sr.No.	Product Name	Licence Annual Capacity	Unit	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	TOTAL
1	Slurry / Emulsion Explosives (Nitrate Mixture)	156250	MT	10978.331	14140.028	13265.468	11420.436	10977.196	10515.737	71297.196
2	Bulk Emulsion (SME) Nitrate Mixture	100000	MT	1426.409	1490.350	751.160	799.800	770.310	483.060	5721.089
4	SMO	9162	MT	216.500	247.000	283.650	250.050	195.200	228.750	1421.150
5	PIBSA	6000	MT	96.200	68.224	93.500	73.135	55.980	83.090	470.129
6	Lead Azide (Captive)	9	MT	0.984	0.986	0.476	0.646	0.726	0.478	4.296
7	Lead Styphanate (Captive)	3	MT	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8	ASA Mixing & Drying (Captive)	12	MT	1.141	1.138	0.513	0.658	0.765	0.573	4.788
9	PETN	3000	MT	263.600	290.020	282.200	236.000	222.600	246.400	1540.820
10	HMX/HMX Compounded Products	300	MT	0.061	0.165	0.110	0.460	0.000	0.170	0.966
11	RDX/RDX Compounded Products	3000	MT	2.909	2.143	3.675	3.341	28.605	10.802	51.475
12	TNT	3000	MT	76.500	85.030	112.300	74.900	92.470	38.800	480.000
13	Cast Booster	3000	MT	241.942	243.924	225.933	237.130	204.892	232.694	1386.515
14	Detonating Fuse	150	Million Mtrs	12.362	12.370	13.185	7.857	9.590	11.726	67.090
15	Detonator	125	Million Nos.	6.593	5.114	3.970	3.870	3.790	5.347	28.684

SOLAR INDUSTRIES INDIA LIMITED

Production for the Period Oct-2021 to Mar,2022

Sr. No.	Product Name	Licence Annual Capacity	Unit	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	TOTAL	GRAND TOTAL FY 2021-22
1	Slurry/Emulsion Explosives (Nitrate Mixture)	156250	MT	12263.565	11683.475	14508.376	14747.798	11877.843	18601.862	83682.919	167030.105
2	Bulk Emulsion (SME) Nitrate Mixture	100000	MT	1035.355	1408.450	1224.510	1611.280	1355.020	1859.969	8494.584	14215.673
3	SMO	9162	MT	265.300	191.600	222.600	264.400	277.550	277.000	1498.450	2923.6
4	PIBSA	6000	MT	53.151	75.726	56.117	103.201	60.376	95.335	443.906	914.035
6	Lead Azide (Captive)	9	MT	1.080	0.927	0.941	0.722	0.264	0.973	4.907	9.695
7	Lead Styphanate (Captive)	3	MT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0
8	ASA Mixing & Drying (Captive)	12	MT	1.209	1.029	0.934	0.777	0.137	1.136	5.222	10.010
9	PETN	3000	MT	195.000	249.000	266.200	267.400	245.400	201.800	1424.800	3055.800
10	HMX/HMX Compounded Products	300	MT	1.980	10.370	10.699	12.080	19.135	21.264	75.528	76.494
11	RDX/RDX Compounded Products	3000	MT	4.448	10.254	10.087	5.256	9.803	20.509	60.357	111.832
12	TNT	3000	MT	42.340	113.000	85.000	98.625	97.000	104.000	539.965	1019.965
13	Cast Booster	3000	MT	228.507	201.005	256.854	290.411	249.796	314.173	1540.746	2927.261
14	Detonating Fuse	150	Million Mtrs	5.612	11.873	12.574	13.483	12.058	13.286	68.886	135.976
15	Detonator	125	Million Nos.	6.017	5.962	5.931	4.502	5.172	3.795	31.379	60.063

SOLAR INDUSTRIES INDIA LIMITED

Production for the Period Apr-2022 to Sep,2022

Sr.No.	Product Name	Licence Annual Capacity	Unit	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	TOTAL
1	Slurry / Emulsion Explosives (Nitrate Mixture)	156250	MT	11632.750	13126.156	10158.118	10697.994	10146.072	10616.423	66377.513
2	Bulk Emulsion (SME) Nitrate Mixture	100000	MT	1398.380	1127.830	1160.000	438.760	760.390	1111.470	5996.830
4	SMO	9162	MT	265.350	262.250	265.350	268.400	231.750	253.150	1546.250
5	PIBSA	6000	MT	115.334	72.834	117.900	135.939	124.804	123.153	689.964
6	Lead Azide (Captive)	9	MT	0.846	0.743	0.841	0.293	0.245	0.797	3.765
7	Lead Styphanate (Captive)	3	MT	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8	ASA Mixing & Drying (Captive)	12	MT	0.914	0.796	0.992	0.351	0.187	0.600	3.840
9	PETN	3000	MT	156.400	192.400	101.800	192.000	136.200	150.800	929.600
10	HMX/HMX Compounded Products	300	MT	5.361	9.973	30.752	13.960	17.838	26.862	104.746
11	RDX/RDX Compounded Products	3000	MT	7.682	10.080	5.272	4.257	1.876	3.933	33.100
12	TNT	3000	MT	93.240	88.900	108.000	77.620	116.000	92.605	576.365
13	Cast Booster	3000	MT	147.086	114.899	187.642	141.269	114.343	104.754	809.993
14	Detonating Fuse	150	Million Mtrs	13.905	12.777	13.188	11.276	5.800	8.908	65.854
15	Detonator	125	Million Nos.	5.791	5.675	5.767	3.602	3.909	4.930	29.674

SOLAR INDUSTRIES INDIA LIMITED

Production for the Period Oct-2022 to Mar,2023



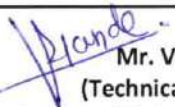
Sr. No.	Product Name	Licence Annual Capacity	Unit	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	TOTAL	GRAND TOTAL FY 2022-23
1	Slurry/Emulsion Explosives (Nitrate Mixture)	156250	MT	11230.435	13337.460	16169.436	16061.912	16129.147	16145.489	89073.879	169451.392
2	Bulk Emulsion (SME) Nitrate Mixture	100000	MT	1380.200	1506.700	1391.290	1678.460	1535.269	1463.040	8954.959	14951.789
3	SMO	9162	MT	225.650	289.750	295.800	213.500	262.250	286.650	1573.600	3119.985
4	PIBSA	6000	MT	106.570	131.528	100.308	32.900	73.063	116.165	560.534	1250.49
6	Lead Azide (Captive)	9	MT	0.239	1.043	1.297	1.261	1.086	0.273	5.199	8.964
7	Lead Styphanate (Captive)	3	MT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
8	ASA Mixing & Drying (Captive)	12	MT	0.575	1.200	1.169	0.661	0.401	0.178	4.184	8.024
9	PETN	3000	MT	260.400	370.800	347.000	391.400	349.600	333.000	2052.200	3682.800
10	HMX/HMX Compounded Products	300	MT	12.500	24.188	34.676	32.790	40.960	34.560	179.674	284.42
11	RDX/RDX Compounded Products	3000	MT	7.130	14.166	15.785	58.902	29.817	9.895	135.695	168.795
12	TNT	3000	MT	92.700	111.050	79.380	0.000	68.500	143.500	495.130	1071.495
13	Cast Booster	3000	MT	293.327	349.060	408.786	337.803	318.964	406.542	2114.482	3924.475
14	Detonating Fuse	150	Million Mtrs	9.225	13.753	12.698	13.503	13.639	12.861	75.679	141.533
15	Detonator	125	Million Nos.	5.193	6.402	6.269	5.578	3.369	4.815	31.626	61.305

SOLAR INDUSTRIES INDIA LIMITED

Production for the Period Apr-2023 to Sept,2023

Sr.No.	Product Name	Licence Annual Capacity	Unit	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	TOTAL
1	Slurry / Emulsion Explosives (Nitrate Mixture)	156250	MT	16329.109	17323.322	16177.322	12154.820	12627.415	11825.986	86437.974
2	Bulk Emulsion (SME) Nitrate Mixture	100000	MT	1115.720	1105.240	1217.690	730.310	895.650	672.310	5736.920
4	SMO	9162	MT	253.150	240.900	298.900	301.950	250.050	240.950	1585.900
5	PIBSA	6000	MT	86.200	116.170	133.844	88.170	83.500	55.450	563.334
6	Lead Azide (Captive)	9	MT	1.096	1.075	0.828	0.604	0.696	1.192	5.491
7	Lead Styphanate (Captive)	3	MT	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8	ASA Mixing & Drying (Captive)	12	MT	1.051	1.046	0.838	0.679	0.768	1.245	5.627
9	PETN	3000	MT	277.200	411.200	362.200	372.200	395.800	333.400	2152.000
10	HMX/HMX Compounded Products	300	MT	41.982	22.650	23.460	0.100	26.770	35.890	150.852
11	RDX/RDX Compounded Products	3000	MT	7.776	2.995	41.847	14.209	13.540	32.080	112.447
12	TNT	3000	MT	99.900	166.800	157.340	86.000	59.900	6.000	575.940
13	Cast Booster	3000	MT	350.166	462.369	411.685	389.305	423.106	415.328	2451.959
14	Detonating Fuse	150	Million Mtrs	14.393	16.788	15.133	14.084	13.464	12.845	86.707
15	Detonator	125	Million Nos.	3.474	3.848	2.588	2.044	2.119	1.702	15.775



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TEST REPORT				
Test Report No: -	GESEC/PRO/AAQM/2023-24/09/633		Report Date	15-09-2023
Sample ID: -	GESEC/PRO/AAQM/2023-24/09/633			
Name & Address of the Customer		M/s. SOLAR INDUSTRIES INDIA LIMITED Village- Chakdoh, Taluka- Katol, Dist.-Nagpur		
Ambient Air Sample Details				
Type	Sampling Location		Sampling done by	
Ambient Air	Near NW Corner of the Factory		Envirotech Research Private Limited	
Sampling Time				
Start Time	Stop Time		Total Hrs.	
10:00 AM	06:00 PM		8 Hrs.	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	28	Wet Bulb Temperature °C	21	
Dry Bulb Temperature °C	26	Relative Humidity % RH	89	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
07-09-2023	09-09-2023	09-09-2023	15-09-2023	
Calibration Detail				
Name of Instrument	Respirable Dust Sampler	Date of Calibration	30-06-2023	
Calibration Certificate No.	5480/05-01 To 04	Due Date of Calibration	29-06-2024	
Parameters	Method	Unit	NAAQ Standards	Result
Sulphur Dioxide (SO ₂)	IS:5182 (PART 2):2017	µg/M ³	≤ 80	10.41
Nitrogen Dioxide (NO ₂)	IS:5182 (PART 6):2018	µg/M ³	≤ 80	19.02
Particulate Matter PM ₁₀	IS:5182 (PART 4):2019	µg/M ³	≤ 100	50.38
Particulate Matter PM _{2.5}	IS:5182 (PART 24):2019	µg/M ³	≤ 60	20.70
Ozone(O ₃) For 1 Hrs.	Method 411, Air Sampling and Analysis 3rd Edition ,2013	µg/M ³	≤ 180	11.25
Ammonia (NH ₃) For 24 Hrs.	Method 401, Air Sampling and Analysis 3rd Edition ,2013	µg/M ³	≤400	8.81
Remark-				
➤ All above results are within National Ambient Air Quality standards.				
				 Mr. Vinod Hande (Technical Manager) Reviewed & Authorized By Page 1 of 2

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TEST REPORT				
Test Report No: -	GESEC/PRO/AAQM/2023-24/09/633		Report Date	15-09-2023
Sample ID: -	GESEC/PRO/AAQM/2023-24/09/633			
Name & Address of the Customer		M/s. SOLAR INDUSTRIES INDIA LIMITED Village- Chakdoh, Taluka- Katol, Dist.-Nagpur		
Ambient Air Sample Details				
Type	Sampling Location		Sampling done by	
Ambient Air	Near NW Corner of the Factory		Envirotech Research Private Limited	
Sampling Time				
Start Time	Stop Time		Total Hrs.	
10:00 AM	06:00 PM		8 Hrs.	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	28	Wet Bulb Temperature °C	21	
Dry Bulb Temperature °C	26	Relative Humidity % RH	89	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
07-09-2023	09-09-2023	09-09-2023	15-09-2023	
Calibration Detail				
Name of Instrument	Respirable Dust Sampler	Date of Calibration	30-06-2023	
Calibration Certificate No.	5480/05-01 To 04	Due Date of Calibration	29-06-2024	
Parameters	Method	Unit	NAAQ Standards	Result
Carbon Monoxide (CO)	MASA-822 3rd Edition	mg/M ³	≤ 04	0.068
Benzene (C ₆ H ₆)	IS 5182 (Part 11) :2006 (RA 2017)	µg/M ³	≤ 05	<0.5
Benzo(a)Pyrene (BaP)	CPCB Manual Vol 1 2011	ng/M ³	≤ 01	<0.02
Arsenic (As)	MASA-822 3rd Edition	ng/M ³	≤ 06	<0.3
Nickel (Ni)	MASA-822 3rd Edition	ng/M ³	≤ 20	<0.3
Lead (Pb)	MASA-822 3rd Edition	µg/M ³	1.00	<0.003
Remark-				
➤ All above results are within National Ambient Air Quality standards.				
				Mr. Vinod Hande (Technical Manager) Reviewed & Authorized By

END OF REPORT

Page 2 of 2

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TEST REPORT			
Test Report No: - GESEC/PRO/ANLM/2023-24/09/636		Date of Report	
Sample ID: - GESEC/PRO/ANLM/2023-24/09/636		Date of Sampling	
Name & Address of the Customer M/s. SOLAR INDUSTRIES INDIA LIMITED Village- Chakdoh, Taluka- Katol, Dist.-Nagpur		Start Date of Analysis	
		End Date of Analysis	
		Location	
Sample Collected By		Envirotech Research Private Limited	
Standard Method		IS: 9989:2020	
Calibration Detail			
Name of Instrument	Digital Sound Level Meter	Date of Calibration	30-06-2023
Calibration Certificate No.	5480/01-01	Due Date of Calibration	29-06-2024

Ambient Noise Level Monitoring Report							
Date	Timing	Result dB(A) Day	Date	Timing	Result dB(A) Night	Unit	CPCB Standards dB(A)
07-09-2023	9.00	51.3	07-09-2023	10.00	49.6	dB(A)	Day (6.00 a.m. to 10.00 p.m.) -75
07-09-2023	10.00	52.7	07-09-2023	11.00	48.4	dB(A)	
07-09-2023	11.00	54.6	08-09-2023	12.00	47.1	dB(A)	
07-09-2023	12.00	53.8	08-09-2023	1.00	46.3	dB(A)	
07-09-2023	1.00	54.9	08-09-2023	2.00	46.5	dB(A)	
07-09-2023	2.00	55.6	08-09-2023	3.00	45.9	dB(A)	
07-09-2023	3.00	56.1	08-09-2023	4.00	44.8	dB(A)	
07-09-2023	4.00	54.3	08-09-2023	5.00	45.7	dB(A)	
07-09-2023	5.00	55.6	08-09-2023	6.00	47.2	dB(A)	
07-09-2023	6.00	54.2					
07-09-2023	7.00	54.1					
07-09-2023	8.00	53.6					
07-09-2023	9.00	51.6					
08-09-2023	7.00	49.8					
08-09-2023	8.00	50.1					
Day Time Leq		53.5					
Night Time Leq		46.8					

Remark-

- All above Noise level results are within Central Pollution Control Board Standards limit.
- Day/Night -75/70 dB.



Hande
Mr. Vinod Hande
(Technical Manager)
Reviewed & Authorized By


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TEST REPORT				
Test Report No: -	GESEC/PRO/ST/2023-24/09/639		Report Date	15-09-2023
Sample ID: -	GESEC/PRO/ST/2023-24/09/639			
Name & Address of the Customer	M/s. SOLAR INDUSTRIES INDIA LIMITED Village- Chakdoh, Taluka- Katol, Dist.-Nagpur			
Sample Details				
Sample Collection Date	Sample receipt Date	Analysis start Date	Analysis complete Date	
07-09-2023	09-09-2023	09-09-2023	15-09-2023	
Instrument Details				
Name of Instrument	Stack Kit	Date of Calibration	30-06-2023	
Calibration Certificate No.	5480/02-01 To 05	Due Date of Calibration	29-06-2024	
Stack Details				
Stack No./ID	Stack Attached to		Sampling done by	
Boiler (S-4)	Boiler 12 TPH		Envirotech Research Private Limited	
Shape	Round	Fuel Type	Coal	
Diameter/ Dimensions (m)	1.20	Fuel Consumption (Kg/Hr)	1200.0	
Height (m)	30.0			
Temperature (°C)	117	Velocity (m/s)	10.51	
Gas Volume (Nm ³ /Hr)	31212.24			
Parameters	Method	Unit	Limit	Result
Total Particulate Matter	IS 11255 (Part 1) 2019	mg/Nm ³	150	81.30
Sulphur Dioxide (SO ₂)	IS 11255 (Part 2) 2019	mg/Nm ³	Not Specified	153.60
		Kg/day	Not Specified	115.06
Oxides of Nitrogen (NOx)	IS 11255 (Part 7) 2017	mg/Nm ³	Not Specified	126.90
Remarks-				
➤ All above results are well within the Limit.				
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TEST REPORT				
Test Report No: -	GESEC/PRO/ST/2023-24/09/640	Report Date	15-09-2023	
Sample ID: -	GESEC/PRO/ST/2023-24/09/640			
Name & Address of the Customer	M/s. SOLAR INDUSTRIES INDIA LIMITED Village- Chakdoh, Taluka- Katol, Dist.-Nagpur			
Sample Details				
Sample Collection Date	Sample receipt Date	Analysis start Date	Analysis complete Date	
07-09-2023	09-09-2023	09-09-2023	15-09-2023	
Instrument Details				
Name of Instrument	Stack Kit	Date of Calibration	30-06-2023	
Calibration Certificate No.	5480/02-01 To 05	Due Date of Calibration	29-06-2024	
Stack Details				
Stack No./ID	Stack Attached to		Sampling done by	
S-5	Thermopack Fluid Heater		Envirotech Research Private Limited	
Shape	Round	Fuel Type	Coal	
Diameter/ Dimensions (m)	0.8	Fuel Consumption (Kg/Hr)	300.0	
Height (m)	30.5			
Temperature (°C)	98	Velocity (m/s)	8.36	
Gas Volume (Nm ³ /Hr)	11593.11			
Parameters	Method	Unit	Limit	Result
Total Particulate Matter	IS 11255 (Part 1) 2019	mg/Nm ³	150	62.44
Sulphur Dioxide (SO ₂)	IS 11255 (Part 2) 2019	mg/Nm ³	Not Specified	51.20
		Kg/day	Not Specified	14.25
Oxides-of Nitrogen (NOx)	IS 11255 (Part 7) 2017	mg/Nm ³	Not Specified	76.18
Remarks-				
➤ All above results are well within the Limit.				



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 (Technical Manager)
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TEST REPORT

Test Report No: -	GESEC/PRO/DIL/2023-24/09/644	Report Date	15-09-2023
Sample ID: -	GESEC/PRO/DIL/2023-24/09/644		

Name & Address of the Customer	M/s. SOLAR INDUSTRIES INDIA LIMITED Village- Chakdoh, Taluka- Katol, Dist.-Nagpur
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DG Noise Monitoring Report

Type	DG Noise
Sampling done by	Envirotech Research Private Limited
Standard method	As Per IS: 9989:2020

Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date
07-09-2023	09-09-2023	--	--

Name of Instrument	Digital Sound Level Meter	Date of Calibration	30-06-2023
Calibration Certificate No.	5480/01-08	Due Date of Calibration	29-06-2024

Test Location	Reading in dB(A)				Average	Difference dB(A)
	0.5 mtr. Away from DG					
	North Side	East Side	South Side	West Side		
DG Set No. 06 400 KVA (Near Gate No. 2) Sr. No. N15C092331						
Without Enclosure	98.6	99.3	100.2	96.2	98.58	25.2
With Enclosure	73.0	73.7	73.4	73.6	73.43	

Remark:

➤ Maharashtra Pollution Control Board has prescribed minimum 25 dB (A) Noise as DG Insertion loss difference during With and Without enclosure of DG



V. Hande
Mr. Vinod Hande
(Technical Manager)
Reviewed & Authorized By

END OF REPORT

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TEST REPORT		
Test Report No: GESEC/PRO/WW/2023-24/09/648	Report Date	15-09-2023
Sample ID : GESEC/PRO/WW/2023-24/09/648	Sample Details	ETP Treated Effluent (Emulsion Plant)
Name & Address of the Customer M/s. SOLAR INDUSTRIES INDIA LIMITED Village- Chakdoh, Taluka- Katol, Dist.-Nagpur	Type of Sample	Industrial Wastewater
	Volume Of Sample	1 Ltr plastic bottle
	Sample Status	Sealed
	Sample Collected By	Envirotech Research Private Limited
	Date of Sample Collection	07-09-2023
	Sample Receipt Date	09-09-2023
	Analysis Start Date	09-09-2023
	Analysis End Date	15-09-2023

Parameters	Results	Standard Limits	Unit	Standard Method
pH	8.19	6.0-8.5	--	APHA 4500 H+, B 23 rd Edition.2017
Total Suspended Solid	56.0	<100	mg/l	APHA 2540 D 23 rd ED:2017
Total Dissolved Solid	190.0	<2100	mg/l	APHA 2540,C,23 rd Edition, 2017
Chemical Oxygen Demand (COD)	200.0	<250	mg/l	IS 3025 (Part 58) , 2019
Biochemical Oxygen Demand (BOD) at 27°C for 3 days	24.00	<100	mg/l	IS 3025 (Part 44), 2019
Oil & Grease	<1.0	<10	mg/l	IS 3025 (Part 39), 2019
Chloride as Cl ⁻	109.96	<600	mg/l	APHA 4500 Cl- B, 23 rd Edition, 2017
Sulphate as SO ₄	53.67	<1000	mg/l	APHA 3025 (Part 24); 2019
Lead as Pb	<0.01	0.1	mg/l	APHA 23rd 2017, 3111 B
Cyanide as CN	<0.05	0.2	mg/l	APHA 4500-CN
Mercury as Hg	<0.001	0.01	mg/l	APHA 3500-Zn
Hexavalent Chromium as Cr (VI)	0.038	0.1	mg/l	APHA 3500-Cr
Copper as Cu	0.046	3.0	mg/l	APHA 3500-Cu
Phenol as C ₆ H ₅ OH	0.001	5.0	mg/l	IS 3025 (Part 43): 1992
Bio assay Test	90.0	90% Survival of fish after 96 hrs. in 100% Effluent	%	APHA 8010

Remark:

- All parameters are within the limit.
- BDL- Below Detectable Limit



Handwritten Signature
Mr. Vinod Hande
(Technical Manager)
Reviewed & Authorized By

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TEST REPORT

Test Report No: GESEC/PRO/WW/2023-24/09/651	Report Date	15-09-2023
Sample ID : GESEC/PRO/WW/2023-24/09/651	Sample Details	MEE Plant
Name & Address of the Customer M/s. SOLAR INDUSTRIES INDIA LIMITED Village- Chakdoh, Taluka- Katol, Dist.-Nagpur	Type of Sample	Industrial Wastewater
	Volume Of Sample	1 Ltr plastic bottle
	Sample Status	Sealed
	Sample Collected By	Envirotech Research Private Limited
	Date of Sample Collection	07-09-2023
	Sample Receipt Date	09-09-2023
	Analysis Start Date	09-09-2023
	Analysis End Date	15-09-2023

Parameters	Results	Unit	Standard Method
pH	7.37	--	APHA 4500 H+, B 23 rd Edition.2017
Total Suspended Solid	42.0	mg/l	APHA 2540 D 23 rd ED:2017
Total Dissolved Solid	338.6	mg/l	APHA 2540,C,23 rd Edition, 2017
Chemical Oxygen Demand (COD)	144.0	mg/l	IS 3025 (Part 58) , 2019
Biochemical Oxygen Demand (BOD) at 27°C for 3 days	17.30	mg/l	IS 3025 (Part 44), 2019
Oil & Grease	<1.0	mg/l	IS 3025 (Part 39), 2019
Chloride as Cl ⁻	79.97	mg/l	APHA 4500 Cl- B, 23 rd Edition, 2017
Sulphate as SO ₄	27.59	mg/l	APHA 3025 (Part 24); 2019
Lead as Pb	<0.01	mg/l	APHA 23rd 2017, 3111 B

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TEST REPORT		
Test Report No: GESEC/PRO/WW/2023-24/09/653	Report Date	15-09-2023
Sample ID : GESEC/PRO/WW/2023-24/09/653	Sample Details	STP Treated Effluent
Name & Address of the Customer M/s. SOLAR INDUSTRIES INDIA LIMITED Village- Chakdoh, Taluka- Katol, Dist.-Nagpur	Type of Sample	Domestic Wastewater
	Volume Of Sample	1 Ltr plastic bottle
	Sample Status	Sealed
	Sample Collected By	Envirotech Research Private Limited
	Date of Sample Collection	07-09-2023
	Sample Receipt Date	09-09-2023
	Analysis Start Date	09-09-2023
	Analysis End Date	15-09-2023

Parameters	Results	Standard Limits	Unit	Standard Method
pH	7.21	6.0-8.5	--	APHA 4500 H+, B 23 rd Edition.2017
Total Suspended Solid	54.0	<100	mg/l	APHA 2540 D 23 rd ED:2017
Total Dissolved Solid	528.4	<2100	mg/l	APHA 2540,C,23 rd Edition, 2017
Chemical Oxygen Demand (COD)	40.0	<100	mg/l	IS 3025 (Part 58) , 2019
Biochemical Oxygen Demand (BOD) at 27°C for 3 days	14.80	<100	mg/l	IS 3025 (Part 44), 2019
Oil & Grease	BDL	<10	mg/l	IS 3025 (Part 39), 2019
Chloride as Cl ⁻	189.94	<600	mg/l	APHA 4500 Cl- B, 23 rd Edition, 2017
Total Ammonical Nitrogen as TAN	0.002	N.S.	mg/l	APHA 23rd ED 2017, 4500 NH3 B
Nitrate as NO ₃	8.92	N.S.	mg/l	APHA 23rd 2017, 4500 NO3 B
Dissolved Oxygen	5.50	>5.0	mg/l	APHA 23rd 2017, 5210 B

Remark:

- All parameters are within the limit.
- BDL- Below Detectable Limit



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