



SEIL Energy India Limited
(Formerly Sembcorp Energy India Limited)
CIN: U40103HR2008PLC095648
Regd. Office: Building 7A, Level 5,
DLF Cyber City, Gurugram – 122002,
Haryana, India
Tel: (91) 124 6846700/701,
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Website: www.seilenergy.com

SEIL P1/APPCB/BZA/2024/006
27th September 2024

To
The Member Secretary,
Andhra Pradesh Pollution Control Board,
Paryavaran Bhavan, APIIC Colony Road,
Gurunanak Colony, Auto Nagar,
Vijayawada– 520007.

Sub.: **Submission of Environment Statement for FY2023-24 of SEIL Energy India Limited Project-1 (Formerly known as Sembcorp Energy India Limited), Nellore.**

Ref: CFO order issued vide Ref: APPCB/VJA/NLR/930/HO/CFO/2016 Dt. 16.11.2021.

Dear Sir,

This has reference to the above. Please find enclosed herewith Environment Statement of SEIL Energy India Limited Project-1 (Formerly Sembcorp Energy India Limited), Nellore for FY2023-24 duly filled in Form V.

Thanking you,

Yours faithfully,
For M/s. SEIL Energy India Limited

Pavan Kumar Rao V
Head HSE- SEIL

Encl: Environment Statement in Form V along with Annexures

Copy To:

1. The Additional Director, Scientist 'E', MoEF&CC, IRO, Vijayawada
2. The Regional Officer, APPCB, Nellore

ENVIRONMENTAL STATEMENT FOR THE YEAR 2023-24

Of

**2x660 MW
Super Critical Coal Based Thermal Power Plant**

At

***Painampuram & Nelaturu villages
Muthukur Mandal
SPSR Nellore District
Andhra Pradesh***

Submitted By

***SEIL Energy India Limited Project-1
(Formerly Sembcorp Energy India Ltd)
SPSR NELLORE, ANDHRA PRADESH***

September 2024

FORM V
(See Rule 14)

Environmental Statement Report for the financial year ending the 31st of March 2024

PART- A

(i) Name and address of the Owner/Occupier of the Industry, Operation or process : Mr. Sunil Kumar Gupta
Head- O&M
SEIL Energy India Limited Project-1
(Formerly Sembcorp Energy India Limited)
Pynampuram/Nelaturu Village
Muthukur Mandal, SPSR Nellore-524344
0861-3052311, 0861-3052309

(ii) Industry Category : A (Coal based thermal power plant)

(iii) Production capacity : 1320 MW (2X660 MW)

(iv) Year of Establishment : 2015

(V) Date of the last Environmental statement Submitted : 28th September 2023

PART- B

Water and Raw Material consumption

1. Water Consumption, m³/d:

Plant Process : 16554
Cooling : 157435
Domestic : 13

Name of Product	Process Water Consumption per Unit of Product Output	
	During the Previous Financial Year (2022-23)	During the Current Financial Year (2023-24)
Electricity	0.68 m ³ /MWH (Excl. Cooling Tower makeup) 7.0 m ³ /MWH (Incl. Cooling Tower makeup)	0.63 m ³ /MWH (Excl. Cooling Tower makeup) 6.67 m ³ /MWH (Incl. Cooling Tower makeup)

2. Raw Material Consumption

Name of Products	Name of Raw Materials	Unit	Consumption of raw material per unit of output	
			During the current Financial year (2022-23)	During the current Financial year (2023-24)
Electricity	Coal	MT/MWH	0.63	0.62
	Fuel Oil	ML/KWH	0.08	0.12

*Industry may use codes if disclosing details of raw materials would violate contractual obligations, otherwise all industries have to name the raw material used.

PART- C

Pollution Discharged to Environment/Unit of Output
(Parameters as specified in the consent issued)

(i) Pollution	Quantity of pollutants discharged	Concentrations of pollutants in discharges (mass/volume)	Percentage of variation from prescribed standards with reasons
a) Water	Please refer Annexure-I (Effluent Water Quality Third Party Monitoring reports)		
b) Air	Please refer Annexure-II (Stack Emission Third Party Monitoring reports)		

PART- D**Hazardous Wastes**

(As specified under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016)

(a) From Process:

S.No.	Hazardous Wastes	Total Quantity	
		During the Current Financial year (2022-23)	During the Current Financial year (2023-24)
1	Expired Paints/ Paint Waste/ Empty Paint Cans	2.650 MT	6.54 MT
2	Expired Chemicals/ Chemical Waste/ Empty Chemical	0	0
3	Spent Ion Exchange Resins	4.610 MT	0
4	Oil Soaked or Chemicals coated Cotton waste	1.250 MT	5.63 MT
5	Used Oil Filters/ Damaged Filters	0.640 MT	0.36 MT
6	ETP Sludge/ Oil Sludge	0	0
7	Used Lubricant Oil	30.68 MT	12.11 MT
8	Waste Oil from DG Sets	0	0
9	Aerosol Cans	30.014 MT	65 KG
10	Used Empty Chemical Jar/ Bottles	0	0
11	Used Empty PVC oil sample Bottles	0	0
12	Used Grease	0	1.6 MT
Other Wastes			
13	Lead Acid Batteries	161 No's	122 No's
14	E-Waste	2.17 MT	2.95 MT

PART- E
Solid Wastes

(b) From pollution control facilities:

S.No.	Solid Wates	Total Quantity (MT)	
		During the Current Financial year (2022-23)	During the Current Financial year (2023-24)
1	Ash (Fly Ash+ Bottom Ash)	17,42,260 MT	17,57,571 MT

(C) Disposal

(1) Quantity recycled or re-utilized with in the plant:

S.No.	Solid Wates	Total Quantity (MT)	
		During the Current Financial year (2022-23)	During the Current Financial year (2023-24)
1	Ash (Fly Ash+ Bottom Ash)	1,77,628 MT	2,43,071 MT

(2) Sold:

S.No.	Solid Wates	Total Quantity (MT)	
		During the Current Financial year (2022-23)	During the Current Financial year (2023-24)
1	Ash (Fly Ash+ Bottom Ash)	15,20,420 MT	15,53,942 MT

(3) Disposed: (Total Ash Disposal)

S.No.	Solid Wates	Total Quantity (MT)	
		During the Previous Financial year (2022-23)	During the Current Financial year (2023-24)
1	Ash (Fly Ash+ Bottom Ash)	16,98,738 MT	1800763 MT

PART- F

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

Characteristics of Solid Wastes

Fly Ash

Parameter	Unit	Fly Ash
Chromium (as Cr ⁺⁶)	ppm	0.41
Arsenic (as As)	ppm	0.72
Lead (as Pb)	ppm	0.56
Mercury (as Hg)	ppm	<0.03

Disposal practice of Solid Waste:

(a) Disposal Practice of Hazardous Waste:

S.No.	Name of Hazardous Waste	Disposal Practice
1	Expired Paints/ Paint Waste/ Empty Paint Cans	Disposal to Authorized recyclers/ Reprocessors/ Incinerators
2	Expired Chemicals/ Chemical Waste/ Empty Chemical	Disposal to Authorized recyclers/ Reprocessors/ Incinerators
3	Spent Ion Exchange Resins	Disposal to Authorized recyclers/ Reprocessors/ Incinerators
4	Oil Soaked or Chemicals coated Cotton waste	Disposal to Authorized recyclers/ Reprocessors/ Incinerators
5	Used Oil Filters/ Damaged Filters	Disposal to Authorized recyclers/ Reprocessors/ Incinerators
6	ETP Sludge/ Oil Sludge	Disposal to Authorized recyclers/ Reprocessors/ Incinerators
7	Used Lubricant Oil	Disposal to Authorized recyclers/ Reprocessors/ Incinerators/ Pre-processors
8	Waste Oil from DG Sets	Disposal to Authorized recyclers/ Reprocessors/ Incinerators/ Pre-processors
9	Aerosol Cans	Disposal to Authorized recyclers/ Reprocessors/ Incinerators
10	Used Empty Chemical Jar/ Bottles	Disposal to Authorized recyclers/ Reprocessors/ Incinerators
11	Used Empty PVC oil sample Bottles	Disposal to Authorized recyclers/ Reprocessors/ Incinerators
12	Used Grease	Disposal to Authorized recyclers/ Reprocessors/ Incinerators
Other Wastes		
13	Lead Acid Batteries	Return to manufacturers/dealers on buyback basis/ Authorized recyclers
14	E-Waste	Authorized recyclers/ Reprocessors

(b) Disposal Practice of Solid Waste:

S.No.	Name of Solid Waste	Disposal Practice
1	Ash (Fly Ash+ Bottom Ash)	Utilization in Cement/ AAC blocks/ Brick Industry/ RMC/ Export to other countries/ Disposal in Ash Pond/ Filling of Low-lying areas

PART- G

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

Energy Conservation Initiatives Undertaken in FY2023-24:

Sl. No.	Initiatives	Energy Savings (MWh)	Fuel (MT)
1	In Unit-1 Air Pre Heater-1A/1B clogged heating element baskets replaced with new and damaged seals replaced during COH for APH DP, leakage and Fan power reduction	8993.5	9552.54
2	Unit-1 Turbine steam path auditing, seals rectifications and sand blasting carried out during COH	-	5812.32
3	Improved the Condenser vacuum and stopped fourth CW Pump during part load and high condenser vacuum conditions	22100.75	-
4	Unit-1 NDCT rectification carried out during COH, which improved NDCT effectiveness by 2.6%.	-	6102.93
5	Unit-1 coal burners, abraded primary & secondary air diffusers replaced with new and combustion improved.	-	1005.53
6	Ash handling plant conveying air compressor's dryer bypassed by monitoring the ash conveying efficiency	1116.9	-
7	CW blowdown process system enhanced; bleed given through main CW pump discharge without affecting condenser vacuum during seasonal benefits. (CW Pumps stopped)	919.8	-

- Portal water consumption reduced by 50% by installing float in overhead tanks.
- Consumption regularised and reduced by removing unwanted connection.
- Team formed from different departments for the regular monitoring and reduction of water consumption.
- Different initiative/ technologies like Double Ring Method, Online Drip System, WAPASA & Israel Technology adopted for water consumption reduction in our green belt in both plants.

PART- H

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

- A total of about Rs. 2,94,82,000 has been spent on Environment Monitoring, House Keeping, Waste Disposal, Green Belt Maintenance, Ash Management, Maintenance of Pollution Control Monitoring equipment like CEMS, CAAQMS & EQMS for the financial year 2023-24.
- Regular monitoring of Ambient Air Quality, Stack emissions and Effluent quality have been taken up to evaluate the efficiency of the pollution control systems and control measures. Both CEMS, CAAQMS & EQMS are connected to APPCB / CPCB websites and data is being transmitted on real time basis.
- Energy Management system (EMS) Implemented for Auxiliary consumption optimization.
- Bulk shipment of Ash disposal done to Sri Lanka and Middle East.
- SEIL has hired JCB for free loading of pond ash to supply customers.
- Exploring the international markets.
- Finding other modes of transportation of fly ash to the customers.
- LOI issued to NHAI contractors for pond ash off take.
- The parking area developed for more bulkers parking.
- Online Performance Tool (SPARK) Introduced for heat rate Optimization.
- Energy Management system (EMS) Implementation under progress for Auxiliary consumption optimization.
- Massive tree plantation is done inside as well as outside of the Plant premises. Lawns/ gardens also are developed inside the plant premises to enhance aesthetics. Conocarpus plantation is done all around the coal stack area to suppress the wind-borne coal dust.
- All internal roads are made up of concrete/asphalt to reduce the fugitive dust emission inside the plant premises.
- Upgraded DFDS System installed for dust suppression.
- Rainwater Harvesting Ponds are constructed & maintained in the site.
- Good Housekeeping practices and 5S system has been implemented in the company by deploying approx. 200 No's of manpower.
- Company has undertaken 5S audit from QCFI and is being certified.

PART- I

Any other particulars for improving the quality of the environment.

- SEIL Energy India Limited P-1 certified with ISO 9001:2015 (QMS), ISO 14001:2015 (EMS) & ISO 45001:2018 (OHSAS).
- More than 455 acres of Greenbelt development completed inside & all along the periphery of the plant boundary.
- World Environment Day was celebrated with Plantation, Competitions, awareness sessions & rally to build up environmental awareness among employees and the community.



Pavan Kumar Rao
Head-HSE

✓ On Behalf of Head O&M

Mr. Sunil Kumar Gupta
Head O&M
SEIL Energy India Limited
Date: 27-09-2024

ANNEXURE- I



SPECTRA ENVIROTECH PVT LTD

Accredited by MoEF & Accredited by NABL (TC-9903)

Environmental, Micro Biology, Analytical Testings & RO, ETP, STP's Engineering

TEST REPORT

ISSUED TO: M/s. SEIL ENERGY INDIA LIMITED PROJECT-1 (2x660 MW Coal Based Thermal Power Plant) Near Pynampuram / Nelaturu (V), Muthukur (M), SPSR Nellore (Dist.) -524344.	
Discipline: Chemical Group: Water Product: ETP OUTLET (Treated Effluent) Date of Monitoring: 24.05.2023 Sample Collected By: Ganesh	Sample Registration Date: 25.05.2023 Analysis Starting Date: 25.05.2023 Analysis Completed Date: 29.05.2023 Issue Date: 30.05.2023 Lab Ref: SEPL/ES/SEILEILP/05-23/0002

TEST RESULT

S.NO	TEST PARAMETERS	TEST METHOD	UNITS	RESULTS	STANDARD
1.	pH	IS:3025 (Part-11)1983	--	7.5	5.5-9.0
2.	Total Dissolved Solids	IS:3025 (Part-15)1984	mg/l	465	2100
3.	Total Suspended Solids	IS:3025 (Part-15)1984	mg/l	54	200
4.	Chemical Oxygen Demand	IS:3025 (Part-58)-1986	mg/l	46	250
5.	Biochemical Oxygen Demand (5 days at 20°C)	IS:3025 (Part-44)-1993	mg/l	18	100
6.	Oil & Grease	IS:3025 (Part-39)-1991	mg/l	<1.0	10

Note: IS- Indian Standard

K.S.Lag
Verified by



DA
Authorized by
Managing Director

LABORATORY : Plot No 142/1, Eruvada Junction, Sabbavaram (M), Vizag - 531 035
Web : www.spectraenviro.com | **E-mail:** sepl.sjn@gmail.com | info@spectraenviro.com
Cell: 80199 55222, 111 | **BRANCHES:** VIJAYAWADA | HYDERABAD





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TEST REPORT

ISSUED TO:

M/s. SEIL ENERGY INDIA LIMITED PROJECT-1

(2x660 MW Coal Based Thermal Power Plant)

Near Pynampuram / Nelaturu (V), Muthukur (M),

SPSR Nellore (Dist.) -524344.

Discipline: Chemical

Group: Water

Product: STP OUTLET

Date of Monitoring: 24.05.2023

Sample Collected By: Ganesh

Sample Registration Date: 25.05.2023

Analysis Starting Date: 26.05.2023

Analysis Completed Date: 29.05.2023

Issue Date: 30.05.2023

Lab Ref: SEPL/ES/SEILEILP/05-23/0002

TEST RESULT

S.NO	TEST PARAMETERS	TEST METHOD	UNITS	RESULTS	STANDARD
1.	pH	IS:3025(Part-11)-1983	--	7.3	5.5-9.0
2.	Total Dissolved Solids	IS:3025(Part-15)-1984	mg/l	172	<2100
3.	Total Suspended Solids	IS:3025(Part-15)-1984	mg/l	30	<200
4.	Chemical Oxygen Demand	IS:3025(Part-58)-1986	mg/l	67	<250
5.	Biochemical Oxygen Demand (5 days at 20°C)	IS:3025(Part-44)-1993	mg/l	16	<100
6.	Oil & Grease	IS:3025(Part-39)-1991	mg/l	<1.0	<10

Note: IS-Indian Standard

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TEST REPORT

ISSUED TO:

M/s. SEIL ENERGY INDIA LIMITED PROJECT-1

(2x660 MW Coal Based Thermal Power Plant)

Near Pynampuram / Nelaturu (V), Muthukur (M),

SPSR Nellore (Dist.) -524344.

Discipline: Chemical

Group: Waste water

Sample Location: **Ash Pond Effluent Water**

Date of Monitoring: 24.05.2023

Sample Collected By: Ganesh

Sample Registration Date & NO: 25/05/2023

Analysis Starting Date: 25.05.2023

Analysis Completed Date: 29.05.2023

Issue Date: 30.05.2023

Lab Ref: SEPL/ES/SEILEILP/05-23/0001

TEST RESULT

S.NO	TEST PARAMETERS	UNIT	TEST METHOD	RESULT	STANDARD
1.	pH	---	IS:3025(Part-11)1983	7.6	6.5-8.5
2.	Color	Hazen	IS-3025(Part-4)2021	Colorless	Colorless
3.	Odor	---	IS-3025(Part-5)	Agreeable	Agreeable
4.	Total Suspended Solids	mg/l	IS:3025(Part-11)1983	30	100
5.	Chemical Oxygen Demand (COD)	mg/l	IS:3025(Part-58)-2006	64	250
6.	Biochemical Oxygen Demand (BOD) (3 days at 27 °C)	mg/l	IS:3025(Part-44)-1993	23	100
7.	Oil & Grease	mg/l	IS:3025(Part-39)-1991	1.5	10
8.	Total Arsenic as As	mg/l	IS:3025(Part-37)-1988	<0.01	0.2
9.	Mercury as Hg	mg/l	IS:3025(Part-48)-1994	<0.001	0.01
10.	Lead as Pb	mg/l	IS:3025(Part-47)-1994	<0.01	2.0
11.	Cadmium as Cd	mg/l	IS:3025(Part-41)-1992	<0.001	2.0
12.	Hexavalent Chromium as Cr ⁶⁺	mg/l	IS:3025(Part-52)-2003	<0.001	1.0

IS-Indian Standard

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TEST REPORT

ISSUED TO:

M/s. SEIL ENERGY INDIA LIMITED PROJECT-1

(2x660 MW Coal Based Thermal Power Plant)

Near Pynampuram/ Nelaturu (V), Muthukur(M),

SPSR Nellore (Dist.) - 524344.

Discipline: Chemical

Group: Water

Product: Water

Location: Boiler Feed Water

Qty: 1 Ltrs

Packing: Plastic Container

Date Of Sampling: 24.05.2023

Sample Registration No: 308 /05/2023

Sample Registration Date: 25.05.2023

Analysis Starting Date: 25.05.2023

Issue Date: 30.05.2023

Lab Ref: SEPL/ES/SEILEILP/05-23/0001

Sample collected person details: S. Ganesh

TEST RESULT

S. NO	TEST PARAMETERS	TEST METHOD	UNITS	STANDARDS	RESULTS
1	Total Suspended Solids	IS 3025(P-17)1984	mg/l	100	2.7
2	Oil & Grease	IS 3025(P-39)2021	mg/l	<1.3	<1.0
3	Copper (Total)	IS 3025(P-42)1992	mg/l	1.0	0.23
4	Ferrous as Fe ⁺	IS 3025(P-53)2003	mg/l	1.0	0.28
5	Free Available Chlorine	IS 3025(P-26)1986	mg/l	<0.3	0.09

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TEST REPORT

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M/s. SEIL ENERGY INDIA LIMITED PROJECT-1
(2x660 MW Coal Based Thermal Power Plant)
Near Pynampuram/ Nelaturu (V), Muthukur (M),
SPSR Nellore (Dist.) - 524344.

Discipline: Chemical

Group: Water

Product: Water

Location: Cooling Tower Blow Down

Qty: 1 Ltrs

Packing: Plastic Container.

Date Of Sampling: 24.05.2023

Sample Registration No: 308/05/2023

Sample Registration Date: 25.05.2023

Analysis Starting Date: 25.05.2023

Issue Date: 30.05.2023

Lab Ref: SEPL/ES/SEILEILP/05-23/0002

Sample collected person details: S. Ganesh

TEST RESULT

S. NO	TEST PARAMETERS	TEST METHOD	UNITS	STANDARDS	RESULTS
1	Zinc	IS 3025(P-49)1994	mg/l	1.0	0.38
2	Chromium (Total)	IS 3025(P-52)2023	mg/l	0.2	BDL
3	Phosphate	IS 3025(P-31)1998	mg/l	5.0	2.8
4	Free Available Chlorine	IS 3025(P-26)1986	mg/l	0.5	0.6

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Discipline: Chemical Group: Water Product: Marine Outfall Water Date of Sampling: 24.05.2023 Sample Collected By: Ganesh	Sample Registration Date: 25.05.2023 Analysis Starting Date: 25.05.2023 Analysis Completed Date: 29.05.2023 Issue Date: 30.05.2023 Lab Ref: SEPL/ES/SEILEILP/05-23/0001

TEST RESULT

S. NO	TEST PARAMETERS	TEST METHOD	UNITS	RESULTS	STANDARDS
1	pH	IS:3025(Part-11)1983	--	6.8	6.5-8.5
2	Temperature Intake	--	°C	25.2	Shall not exceed 5°C above the Receiving temperature
3	Temperature Out Fall	--	°C	27.5	
4	Electric Conductivity	IS: 3025:1964	µs/cm	28,357	--
5	Total Dissolved Solids	IS:3025(Part-15)1984	mg/l	19,765	--
6	Total Suspended Solids	IS:3025(Part-15)1984	mg/l	68	100
7	Chemical Oxygen Demand	IS:3025(Part-58)-2006	mg/l	52	250
8	Biochemical Oxygen Demand (3 days at 27°C)	IS:3025(Part-44)-1993	mg/l	18	100
9	Oil & Grease	IS:3025(Part-39)-1991	mg/l	<1.0	10
10	Total Hardness as CaCO ₃	IS:3025(Part-21)-2012	mg/l	4,361	--
11	Total Alkalinity as CaCO ₃	IS:3025(Part-23)-2012	mg/l	757	--
12	P- Alkalinity as CaCO ₃	IS:3025(Part-13)-1964	mg/l	Nil	--
13	Turbidity	IS:3025(Part-10)-2012	NTU	2.8	--
14	Calcium as Ca	IS:3025(Part-40)-2012	mg/l	1,316	--
15	Magnesium as Mg	IS:3025(Part-46)-2012	mg/l	272	--
16	Sodium as Na	IS:3025(Part-45)1993	mg/l	678	--

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Environmental, Micro Biology, Analytical Testings & RO, ETP, STP's Engineering

S. No	TEST PARAMETERS	TEST METHOD	UNITS	RESULTS	STANDARDS
17	Potassium as K	IS:3025(Part-45)1993	mg/l	361	--
18	Chloride as Cl	IS:3025(Part-32)-2012	mg/l	7,134	--
19	Sulphates as SO ₄	IS:3025(Part-24)-2012	mg/l	780	--
20	Nitrates as NO ₃	IS:3025(Part-34)-2012	mg/l	40.1	--
21	Carbonates as CO ₃	IS:3025(Part-51)-2017	mg/l	Nil	--
22	Bio Carbonates as HCO ₃	IS:3025(Part-51)-2017	mg/l	512	--
23	Iron as Fe	IS:3025(Part-53)-2012	mg/l	1.1	--
24	Flouride as F	IS:3025(Part-60)-2012	mg/l	1.5	--
25	Copper as Cu	IS:3025(Part-42)-2012	mg/l	0.23	--
26	Manganese as Mn	IS:3025(Part-59)-2012	mg/l	0.25	--
27	Phenolic Compounds as C ₆ H ₅ OH	IS:3025(Part-43)-2012	mg/l	<0.005	--
28	Cadmium as Cd	IS:3025(Part-41)-2012	mg/l	<0.005	2.0
29	Mercury as Hg	IS:3025(Part-48)-2012	mg/l	<0.001	0.01
30	Selenium as Se	IS:3025(Part-56)-2012	mg/l	<0.005	--
31	Arsenic as As	IS:3025(Part-37)-2012	mg/l	<0.01	0.2
32	Cyanide as CN	IS:3025(Part-27)-2012	mg/l	<0.01	--
33	Lead as Pb	IS:3025(Part-47)-2012	mg/l	<0.01	2.0
34	Zinc as Zn	IS:3025(Part-49)-2012	mg/l	0.28	--
35	Hexavalent Chromium as Cr ⁺⁶	IS:3025(Part-38)-1964	mg/l	<0.001	1.0
36	Boron as B	IS:3025(Part-57)-2012	mg/l	0.005	--
37	Silica as SiO ₂	IS:3025(Part-35)-2019	mg/l	27.3	--

Note: IS- Indian Standard

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TEST REPORT

ISSUED TO:

M/s. SEIL ENERGY INDIA LIMITED PROJECT-1
(2x660 MW Coal Based Thermal Power Plant)
Near Pynampuram / Nelaturu (V), Muthukur (M),
SPSR Nellore (Dist.) -524344.

Discipline: Chemical

Group: Water

Product: Marine Outfall Water

Date of Sampling: 24.05.2023

Sample Collected By: Ganesh

Sample Registration Date: 25.05.2023

Analysis Starting Date: 25.05.2023

Analysis Completed Date: 29.05.2023

Issue Date: 30.05.2023

Lab Ref: SEPL/ES/SEILEILP/05-23/0002

TEST RESULT

TEST SPECIES	SOURCE OF ORGANISM	LENGTH & WEIGHT (For Fish)	REMARKS
Zebra Fish	Through vendors	1. Length 4.3 cm 2. Weight 3.2 gm	1. Fish were not fed <u>Yes</u> 2. Temperature range in aquarium 25°C

REFERENCE TEST DATA

START DATE: 25.05.2023

END DATE: 29.05.2023

COMMENTS:

The test species was undergone toxicity for about 96 Hrs.
RESULT: 97% survival of fish was noticed

Method of Testing: As per M.L. Jackson & FAO –Food and Agriculture Organization

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M/s. SEIL ENERGY INDIA LIMITED PROJECT-1

(2x660 MW Coal Based Thermal Power Plant),
Near Pynampuram / Nelaturu (V), Muthukur (M),
SPSR Nellore (Dist.) -524344.

Discipline: Chemical

Group: Water

Product: ETP OUTLET (Treated Effluent)

Date of Monitoring: 18.08.2023

Sample Collected By: Ganesh

Sample Registration Date: 19.08.2023

Analysis Starting Date: 19.08.2023

Analysis Completed Date: 26.08.2023

Issue Date: 26.08.2023

Lab Ref: SEPL/ES/SEILEILP/08-23/0002

TEST RESULT

S.NO	TEST PARAMETERS	TEST METHOD	UNITS	RESULTS	STANDARD
1.	pH	IS:3025(Part-11)1983	--	8.3	5.5-9.0
2.	Total Dissolved Solids	IS:3025(Part-15)1984	mg/l	537	2100
3.	Total Suspended Solids	IS:3025(Part-15)1984	mg/l	68	200
4.	Chemical Oxygen Demand	IS:3025(Part-58)-1986	mg/l	52	250
5.	Biochemical Oxygen Demand (5 days at 20°C)	IS:3025(Part-44)-1993	mg/l	27	100
6.	Oil & Grease	IS:3025(Part-39)-1991	mg/l	<1.0	10

Note: IS- Indian Standard

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(2x660 MW Coal Based Thermal Power Plant),
Near Pynampuram / Nelaturu (V), Muthukur (M),
SPSR Nellore (Dist.) -524344.

Discipline: Chemical

Group: Water

Product: STP OUTLET

Date of Monitoring: 18.08.2023

Sample Collected By: Ganesh

Sample Registration Date: 19.08.2023

Analysis Starting Date: 19.08.2023

Analysis Completed Date: 26.08.2023

Issue Date: 26.08.2023

Lab Ref: SEPL/ES/SEILEILP/08-23/0002

TEST RESULT

S.NO	TEST PARAMETERS	TEST METHOD	UNITS	RESULTS	STANDARD
1.	pH	IS:3025(Part-11)1983	--	7.6	5.5-9.0
2.	Total Dissolved Solids	IS:3025(Part-15)1984	mg/l	169	<2100
3.	Total Suspended Solids	IS:3025(Part-15)1984	mg/l	33	<200
4.	Chemical Oxygen Demand	IS:3025(Part-58)-1986	mg/l	55	<250
5.	Biochemical Oxygen Demand (5 days at 20°C)	IS:3025(Part-44)-1993	mg/l	28	<100
6.	Oil & Grease	IS:3025(Part-39)-1991	mg/l	<1.0	<10

Note: IS-Indian Standard

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TEST REPORT

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Discipline: Chemical Group: Wastewater Sample Location: Ash Pond Effluent Water Date of Monitoring: 18.08.2023 Sample Collected By: Ganesh	Sample Registration Date: 19.08.2023 Analysis Starting Date: 19.08.2023 Analysis Completed Date: 26.08.2023 Issue Date: 26.08.2023 Lab Ref: SEPL/ES/SEILEILP/08-23/0001

TEST RESULT

S.NO	TEST PARAMETERS	UNIT	TEST METHOD	RESULT	STANDARD
1.	pH	---	IS:3025(Part-11)1983	7.2	6.5-8.5
2.	Color	Hazen	IS-3025(Part-4)2021	Colorless	Colorless
3.	Odor	---	IS-3025(Part-5)	Agreeable	Agreeable
4.	Total Suspended Solids	mg/l	IS:3025(Part-11)1983	47	100
5.	Chemical Oxygen Demand (COD)	mg/l	IS:3025(Part-58)-2006	76	250
6.	Biochemical Oxygen Demand (BOD) (3 days at 27 °C)	mg/l	IS:3025(Part-44)-1993	34	100
7.	Oil & Grease	mg/l	IS:3025(Part-39)-1991	1.9	10
8.	Total Arsenic as As	mg/l	IS:3025(Part-37)-1988	<0.01	0.2
9.	Mercury as Hg	mg/l	IS:3025(Part-48)-1994	<0.001	0.01
10.	Lead as Pb	mg/l	IS:3025(Part-47)-1994	<0.01	2.0
11.	Cadmium as Cd	mg/l	IS:3025(Part-41)-1992	<0.001	2.0
12.	Hexavalent Chromium as Cr ⁶⁺	mg/l	IS:3025(Part-52)-2003	<0.001	1.0

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(2x660 MW Coal Based Thermal Power Plant)

Near Pynampuram/ Nelaturu (V), Muthukur(M),

SPSR Nellore (Dist.) -524344.

Discipline: Chemical

Group: Water

Product: Water

Location: Boiler Feed Water

Qty: 1 Ltrs

Packing: Plastic Container

Date Of Sampling:18.08.2023

Sample Registration Date:19.08.2023

Analysis Starting Date:19.08.2023

Issue Date:26.08.2023

Lab Ref: SEPL/ES/SEILEILP/08-23/0001

Sample collected person details: S. Ganesh

TEST RESULT

S. NO	TEST PARAMETERS	TEST METHOD	UNITS	STANDARDS	RESULTS
1	Total Suspended Solids	IS 3025(P-17)1984	mg/l	100	2.2
2	Oil & Grease	IS 3025(P-39)2021	mg/l	<1.3	<1.0
3	Copper(Total)	IS 3025(P-42)1992	mg/l	1.0	0.28
4	Ferrous as Fe ⁺	IS 3025(P-53)2003	mg/l	1.0	0.37
5	Free Available Chlorine	IS 3025(P-26)1986	mg/l	<0.3	0.05

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(2x660 MW Coal Based Thermal Power Plant)

Near Pynampuram/ Nelaturu (V), Muthukur(M),

SPSR Nellore (Dist.) -524344.

Discipline: Chemical

Group: Water

Product: Water

Location: Cooling Tower Blow Down

Qty: 1 Ltrs

Packing: Plastic Container

Date Of Sampling: 18.08.2023

Sample Registration Date:19.08.2023

Analysis Starting Date:19.08.2023

Issue Date:26.08.2023

Lab Ref: SEPL/ES/SEILEILP/08-23/0002

Sample collected person details: S. Ganesh

TEST RESULT

S. NO	TEST PARAMETERS	TEST METHOD	UNITS	STANDARDS	RESULTS
1	Zinc	IS 3025(P-49)1994	mg/l	1.0	0.45
2	Chromium (Total)	IS 3025(P-52)2023	mg/l	0.2	BDL
3	Phosphate	IS 3025(P-31)1998	mg/l	5.0	3.6
4	Free Available Chlorine	IS 3025(P-26)1986	mg/l	0.5	0.3

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TEST REPORT

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Discipline: Chemical	Sample Registration Date: 19.08.2023
Group: Water	Analysis Starting Date: 19.08.2023
Product: Marine Outfall Water	Analysis Completed Date: 26.08.2023
Date of Sampling: 18.08.2023	Issue Date: 26.08.2023
Sample Collected By: Ganesh	Lab Ref: SEPL/ES/SEILEILP/08-23/0001

TEST RESULT

S. NO	TEST PARAMETERS	TEST METHOD	UNITS	RESULTS	STANDARDS
1	pH	IS:3025(Part-11)1983	--	6.3	6.5-8.5
2	Temperature Intake	--	°C	24.7	Shall not exceed 5°C above the Receiving temperature
3	Temperature Out Fall	--	°C	22.1	
4	Electric Conductivity	IS: 3025:1964	µs/cm	27,418	--
5	Total Dissolved Solids	IS:3025(Part-15)1984	mg/l	17,685	--
6	Total Suspended Solids	IS:3025(Part-15)1984	mg/l	74	100
7	Chemical Oxygen Demand	IS:3025(Part-58)-2006	mg/l	59	250
8	Biochemical Oxygen Demand (3 days at 27°C)	IS:3025(Part-44)-1993	mg/l	27	100
9	Oil & Grease	IS:3025(Part-39)-1991	mg/l	<1.0	10
10	Total Hardness as CaCO ₃	IS:3025(Part-21)-2012	mg/l	4,475	--
11	Total Alkalinity as CaCO ₃	IS:3025(Part-23)-2012	mg/l	768	--
12	P- Alkalinity as CaCO ₃	IS:3025(Part-13)-1964	mg/l	Nil	--
13	Turbidity	IS:3025(Part-10)-2012	NTU	1.6	--
14	Calcium as Ca	IS:3025(Part-40)-2012	mg/l	1,578	--
15	Magnesium as Mg	IS:3025(Part-46)-2012	mg/l	287	--
16	Sodium as Na	IS:3025(Part-45)1993	mg/l	652	--

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S. No	TEST PARAMETERS	TEST METHOD	UNITS	RESULTS	STANDARDS
17	Potassium as K	IS:3025(Part-45)-1993	mg/l	354	--
18	Chloride as Cl	IS:3025(Part-32)-2012	mg/l	7,237	--
19	Sulphates as SO ₄	IS:3025(Part-24)-2012	mg/l	774	--
20	Nitrates as NO ₃	IS:3025(Part-34)-2012	mg/l	37.6	--
21	Carbonates as CO ₃	IS:3025(Part-51)-2017	mg/l	Nil	--
22	Bio Carbonates as HCO ₃	IS:3025(Part-51)-2017	mg/l	527	--
23	Iron as Fe	IS:3025(Part-53)-2012	mg/l	1.3	--
24	Flouride as F	IS:3025(Part-60)-2012	mg/l	1.1	--
25	Copper as Cu	IS:3025(Part-42)-2012	mg/l	0.27	--
26	Manganese as Mn	IS:3025(Part-59)-2012	mg/l	0.29	--
27	Phenolic Compounds as C ₆ H ₅ OH	IS:3025(Part-43)-2012	mg/l	<0.005	--
28	Cadmium as Cd	IS:3025(Part-41)-2012	mg/l	<0.005	2.0
29	Mercury as Hg	IS:3025(Part-48)-2012	mg/l	<0.001	0.01
30	Selenium as Se	IS:3025(Part-56)-2012	mg/l	<0.005	--
31	Arsenic as As	IS:3025(Part-37)-2012	mg/l	<0.01	0.2
32	Cyanide as CN	IS:3025(Part-27)-2012	mg/l	<0.01	--
33	Lead as Pb	IS:3025(Part-47)-2012	mg/l	<0.01	2.0
34	Zinc as Zn	IS:3025(Part-49)-2012	mg/l	0.25	--
35	Hexavalent Chromium as Cr ⁺⁶	IS:3025(Part-38)-1964	mg/l	<0.001	1.0
36	Boron as B	IS:3025(Part-57)-2012	mg/l	0.004	--
37	Silica as SiO ₂	IS:3025(Part-35)-2019	mg/l	24.1	--

Note: IS- Indian Standard

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TEST REPORT

ISSUED TO: M/s. SEIL ENERGY INDIA LIMITED PROJECT-1 (2x660 MW Coal Based Thermal Power Plant), Near Pynampuram / Nelaturu (V), Muthukur (M), SPSR Nellore (Dist.) -524344.	
Discipline: Chemical Group: Water Product: Marine Outfall Water Date of Sampling: 18.08.2023 Sample Collected By: Ganesh	Sample Registration Date: 19.08.2023 Analysis Starting Date: 19.08.2023 Analysis Completed Date: 26.08.2023 Issue Date: 26.08.2023 Lab Ref: SEPL/ES/SEILEILP/08-23/0002

TEST RESULT

TEST SPECIES	SOURCE OF ORGANISM	LENGTH & WEIGHT(For Fish)	REMARKS
Zebra Fish	Through vendors	1.Length 4.3 cm 2.Weight 3.2 gm	1.Fish were not fed <u>Yes</u> 2. Temperature range in aquarium 25°C

REFERENCE TEST DATA

START DATE: 19.08.2023 END DATE: 27.08.2023
COMMENTS:
The test species undergone toxicity for about 96 Hrs. RESULT: 98%survival of fish was noticed

Testing: As per M.L .Jackson & FAO –Food and Agriculture Organization

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TEST REPORT

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M/s. SEIL ENERGY INDIA LIMITED PROJECT-1
(2x660 MW Coal Based Thermal Power Plant)
Near Pynampuram / Nelaturu (V), Muthukur (M),
SPSR Nellore (Dist.) -524344.

Discipline: Chemical

Group: Water

Product: ETP OUTLET (Treated Effluent)

Date of Monitoring: 23.11.2023

Sample Collected By: Ganesh

Sample Registration Date: 24.11.2023

Analysis Starting Date: 24.11.2023

Analysis Completed Date: 30.11.2023

Issue Date: 01.12.2023

Lab Ref: SEPL/ES/SEILEILP/11-23/0002

TEST RESULT

S.NO	TEST PARAMETERS	TEST METHOD	UNITS	RESULTS	STANDARD
1.	pH	IS:3025(Part-11)1983	--	7.2	5.5-9.0
2.	Total Dissolved Solids	IS:3025(Part-15)1984	mg/l	435	2100
3.	Total Suspended Solids	IS:3025(Part-15)1984	mg/l	67	200
4.	Chemical Oxygen Demand	IS:3025(Part-58)-1986	mg/l	43	250
5.	Biochemical Oxygen Demand (5 days at 20°C)	IS:3025(Part-44)-1993	mg/l	38	100
6.	Oil & Grease	IS:3025(Part-39)-1991	mg/l	<1.0	10

Note: IS- Indian Standard

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Near Pynampuram / Nelaturu (V), Muthukur (M),
SPSR Nellore (Dist.) -524344.

Discipline: Chemical

Group: Water

Product: STP OUTLET

Date of Monitoring: 23.11.2023

Sample Collected By: Ganesh

Sample Registration Date: 24.11.2023

Analysis Starting Date: 24.11.2023

Analysis Completed Date: 30.11.2023

Issue Date: 01.12.2023

Lab Ref: SEPL/ES/SEILEILP/11-23/0002

TEST RESULT

S.NO	TEST PARAMETERS	TEST METHOD	UNITS	RESULTS	STANDARD
1.	pH	IS:3025(Part-11)-1983	--	7.6	5.5-9.0
2.	Total Dissolved Solids	IS:3025(Part-15)-1984	mg/l	186	<2100
3.	Total Suspended Solids	IS:3025(Part-15)-1984	mg/l	42	<200
4.	Chemical Oxygen Demand	IS:3025(Part-58)-1986	mg/l	47	<250
5.	Biochemical Oxygen Demand (5 days at 20°C)	IS:3025(Part-44)-1993	mg/l	23	<100
6.	Oil & Grease	IS:3025(Part-39)-1991	mg/l	<1.0	<10

Note: IS-Indian Standard

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TEST REPORT

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Discipline: Chemical Group: Wastewater Sample Location: Ash Pond Effluent Water Date of Monitoring: 23.11.2023 Sample Collected By: Ganesh	Sample Registration Date& No: 39/11/2023 Analysis Starting Date: 23.11.2023 Analysis Completed Date: 30.11.2023 Issue Date: 01.12.2023 Lab Ref: SEPL/ES/SEILEILP/11-23/0001

TEST RESULT

S.NO	TEST PARAMETERS	UNIT	TEST METHOD	RESULT	STANDARD
1.	pH	---	IS:3025(Part-11)1983	7.2	6.5-8.5
2.	Color	Hazen	IS-3025(Part-4)2021	Colorless	Colorless
3.	Odor	---	IS-3025(Part-5)	Agreeable	Agreeable
4.	Total Suspended Solids	mg/l	IS:3025(Part-11)1983	41	100
5.	Chemical Oxygen Demand (COD)	mg/l	IS:3025(Part-58)-2006	53	250
6.	Biochemical Oxygen Demand (BOD) (3 days at 27 °C)	mg/l	IS:3025(Part-44)-1993	36	100
7.	Oil & Grease	mg/l	IS:3025(Part-39)-1991	2.9	10
8.	Total Arsenic as As	mg/l	IS:3025(Part-37)-1988	<0.01	0.2
9.	Mercury as Hg	mg/l	IS:3025(Part-48)-1994	<0.001	0.01
10.	Lead as Pb	mg/l	IS:3025(Part-47)-1994	<0.01	2.0
11.	Cadmium as Cd	mg/l	IS:3025(Part-41)-1992	<0.001	2.0
12.	Hexavalent Chromium as Cr ⁶⁺	mg/l	IS:3025(Part-52)-2003	<0.001	1.0

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TEST REPORT

ISSUED TO:

M/s. SEIL ENERGY INDIA LIMITED PROJECT-1

(2x660 MW Coal Based Thermal Power Plant),
Near Pynampuram/ Nelaturu (V), Muthukur (M),
SPSR Nellore (Dist.) -524344.

Discipline: Chemical

Group: Water

Product: Water

Location: Boiler Feed Water

Qty: 1 Ltrs

Packing: Plastic Container

Date of Sampling: 18.11.2023

Sample Registration No: 368 /11/2023

Sample Registration Date: 19.11.2023

Analysis Starting Date: 19.11.2023

Issue Date: 25.11.2023

Lab Ref: SEPL/ES/SEILEILP/11-23/0001

Sample collected person details: S. Ganesh

TEST RESULT

S. NO	TEST PARAMETERS	TEST METHOD	UNITS	STANDARDS	RESULTS
1	Total Suspended Solids	IS 3025(P-17)1984	mg/l	100	2.4
2	Oil & Grease	IS 3025(P-39)2021	mg/l	<1.3	<1.0
3	Copper (Total)	IS 3025(P-42)1992	mg/l	1.0	0.28
4	Ferrous as Fe ⁺	IS 3025(P-53)2003	mg/l	1.0	0.19
5	Free Available Chlorine	IS 3025(P-26)1986	mg/l	<0.3	0.05

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TEST REPORT

ISSUED TO:

M/s. SEIL ENERGY INDIA LIMITED PROJECT-1

(2x660 MW Coal Based Thermal Power Plant),
Near Pynampuram/ Nelaturu (V), Muthukur (M),
SPSR Nellore (Dist.) -524344.

Discipline: Chemical

Group: Water

Product: Water

Location: Cooling Tower Blow Down

Qty: 1 Ltrs

Packing: Plastic Container.

Date of Sampling: 18.11.2023

Sample Registration No: 368/05/2023

Sample Registration Date: 19.11.2023

Analysis Starting Date: 19.11.2023

Issue Date: 25.11.2023

Lab Ref: SEPL/ES/SEILEILP/11-23/0002

Sample collected person details: S. Ganesh

TEST RESULT

S. NO	TEST PARAMETERS	TEST METHOD	UNITS	STANDARDS	RESULTS
1	Zinc	IS 3025(P-49)1994	mg/l	1.0	0.34
2	Chromium (Total)	IS 3025(P-52)2023	mg/l	0.2	BDL
3	Phosphate	IS 3025(P-31)1998	mg/l	5.0	2.2
4	Free Available Chlorine	IS 3025(P-26)1986	mg/l	0.5	0.3

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TEST REPORT

ISSUED TO: M/s. SEIL ENERGY INDIA LIMITED PROJECT-1 (2x660 MW Coal Based Thermal Power Plant), Near Pynampuram / Nelaturu (V), Muthukur (M), SPSR Nellore (Dist.) -524344.	
Discipline: Chemical Group: Water Product: Marine Outfall Water Date of Sampling: 23.11.2023 Sample Collected By: Ganesh	Sample Registration Date: 24.11.2023 Analysis Starting Date: 24.11.2023 Analysis Completed Date: 30.11.2023 Issue Date: 01.12.2023 Lab Ref: SEPL/ES/SEILEILP/11-23/0001

TEST RESULT

S. NO	TEST PARAMETERS	TEST METHOD	UNITS	RESULTS	STANDARDS
1	pH	IS:3025(Part-11)1983	--	7.1	6.5-8.5
2	Temperature Intake	--	°C	27.8	Shall not exceed 5°C above the Receiving temperature
3	Temperature Out Fall	--	°C	30.2	
4	Electric Conductivity	IS: 3025:1964	µs/cm	28,258	--
5	Total Dissolved Solids	IS:3025(Part-15)1984	mg/l	19,658	--
6	Total Suspended Solids	IS:3025(Part-15)1984	mg/l	71	100
7	Chemical Oxygen Demand	IS:3025(Part-58)-2006	mg/l	62	250
8	Biochemical Oxygen Demand (3 days at 27°C)	IS:3025(Part-44)-1993	mg/l	38	100
9	Oil & Grease	IS:3025(Part-39)-1991	mg/l	<1.0	10
10	Total Hardness as CaCO ₃	IS:3025(Part-21)-2012	mg/l	4,352	--
11	Total Alkalinity as CaCO ₃	IS:3025(Part-23)-2012	mg/l	763	--
12	P- Alkalinity as CaCO ₃	IS:3025(Part-13)-1964	mg/l	Nil	--
13	Turbidity	IS:3025(Part-10)-2012	NTU	2.7	--
14	Calcium as Ca	IS:3025(Part-40)-2012	mg/l	1,323	--
15	Magnesium as Mg	IS:3025(Part-46)-2012	mg/l	232	--
16	Sodium as Na	IS:3025(Part-45)1993	mg/l	667	--

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S. No	TEST PARAMETERS	TEST METHOD	UNITS	RESULTS	STANDARDS
17	Potassium as K	IS:3025(Part-45)1993	mg/l	357	--
18	Chloride as Cl	IS:3025(Part-32)-2012	mg/l	7,127	--
19	Sulphates as SO ₄	IS:3025(Part-24)-2012	mg/l	765	--
20	Nitrates as NO ₃	IS:3025(Part-34)-2012	mg/l	39.4	--
21	Carbonates as CO ₃	IS:3025(Part-51)-2017	mg/l	Nil	--
22	Bio Carbonates as HCO ₃	IS:3025(Part-51)-2017	mg/l	547	--
23	Iron as Fe	IS:3025(Part-53)-2012	mg/l	1.8	--
24	Flouride as F	IS:3025(Part-60)-2012	mg/l	1.3	--
25	Copper as Cu	IS:3025(Part-42)-2012	mg/l	0.27	--
26	Manganese as Mn	IS:3025(Part-59)-2012	mg/l	0.36	--
27	Phenolic Compounds as C ₆ H ₅ OH	IS:3025(Part-43)-2012	mg/l	<0.005	--
28	Cadmium as Cd	IS:3025(Part-41)-2012	mg/l	<0.005	2.0
29	Mercury as Hg	IS:3025(Part-48)-2012	mg/l	<0.001	0.01
30	Selenium as Se	IS:3025(Part-56)-2012	mg/l	<0.005	--
31	Arsenic as As	IS:3025(Part-37)-2012	mg/l	<0.01	0.2
32	Cyanide as CN	IS:3025(Part-27)-2012	mg/l	<0.01	--
33	Lead as Pb	IS:3025(Part-47)-2012	mg/l	<0.01	2.0
34	Zinc as Zn	IS:3025(Part-49)-2012	mg/l	0.27	--
35	Hexavalent Chromium as Cr ⁺⁶	IS:3025(Part-38)-1964	mg/l	<0.001	1.0
36	Boron as B	IS:3025(Part-57)-2012	mg/l	0.003	--
37	Silica as SiO ₂	IS:3025(Part-35)-2019	mg/l	24.4	--

Note: IS- Indian Standard

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TEST REPORT

ISSUED TO:

M/s. SEIL ENERGY INDIA LIMITED PROJECT-1
(2x660 MW Coal Based Thermal Power Plant),
Near Pynampuram / Nelaturu (V), Muthukur (M),
SPSR Nellore (Dist.) -524344.

Discipline: Chemical

Group: Water

Product: Marine Outfall Water

Date of Sampling: 23.11.2023

Sample Collected By: Ganesh

Sample Registration Date: 24.11.2023

Analysis Starting Date: 24.11.2023

Analysis Completed Date: 30.11.2023

Issue Date: 01.12.2023

Lab Ref: SEPL/ES/SEILEILP/11-23/0002

TEST RESULT

TEST SPECIES	SOURCE OF ORGANISM	LENGTH & WEIGHT (For Fish)	REMARKS
Zebra Fish	Through vendors	1. Length 4.3cm 2. Weight 3.2gm	1. Fish were not fed <u>Yes</u> 2. Temperature range in aquarium 25°C

REFERENCE TEST DATA

START DATE: 24.11.2023

END DATE: 30.11.2023

COMMENTS:

The test species was undergone toxicity for about 96 Hrs.
RESULT: 97% survival of fish was noticed

of Testing: As per M. L. Jackson & FAO –Food and Agriculture Organization

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(2x660 MW Coal Based Thermal Power Plant),
Near Pynampuram / Nelaturu (V), Muthukur (M),
SPSR Nellore (Dist.) -524344.

Discipline: Chemical

Group: Water

Product: ETP OUTLET (Treated Effluent)

Date of Monitoring: 20.02.2024

Sample Collected By: Ganesh

Sample Registration Date: 21.02.2024

Analysis Starting Date: 21.02.2024

Analysis Completed Date: 27.02.2024

Issue Date: 27.02.2024

Lab Ref: SEPL/ES/SEILEILP/02-24/0002

TEST RESULT

S.NO	TEST PARAMETERS	TEST METHOD	UNITS	RESULTS	STANDARD
1.	pH	IS:3025(Part-11)1983	--	7.34	5.5-9.0
2.	Total Dissolved Solids	IS:3025(Part-15)1984	mg/l	442	2100
3.	Total Suspended Solids	IS:3025(Part-15)1984	mg/l	48	200
4.	Chemical Oxygen Demand	IS:3025(Part-58)-1986	mg/l	56	250
5.	Biochemical Oxygen Demand (5 days at 20°C)	IS:3025(Part-44)-1993	mg/l	31	100
6.	Oil & Grease	IS:3025(Part-39)-1991	mg/l	<1.0	10

Note: IS- Indian Standard

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(2x660 MW Coal Based Thermal Power Plant),
Near Pynampuram / Nelaturu (V), Muthukur (M),
SPSR Nellore (Dist.) -524344.

Discipline: Chemical

Group: Water

Product: STP OUTLET

Date of Monitoring: 20.02.2024

Sample Collected By: Ganesh

Sample Registration Date: 21.02.2024

Analysis Starting Date: 21.02.2024

Analysis Completed Date: 27.02.2024

Issue Date: 27.02.2024

Lab Ref: SEPL/ES/SEILEILP/02-24/0002

TEST RESULT

S.NO	TEST PARAMETERS	TEST METHOD	UNITS	RESULTS	STANDARD
1.	pH	IS:3025(Part-11)-1983	--	7.7	5.5-9.0
2.	Total Dissolved Solids	IS:3025(Part-15)-1984	mg/l	156	<2100
3.	Total Suspended Solids	IS:3025(Part-15)-1984	mg/l	45	<200
4.	Chemical Oxygen Demand	IS:3025(Part-58)-1986	mg/l	58	<250
5.	Biochemical Oxygen Demand (5 days at 20°C)	IS:3025(Part-44)-1993	mg/l	20	<100
6.	Oil & Grease	IS:3025(Part-39)-1991	mg/l	<1.0	<10

Note: IS-Indian Standard

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Near Pynampuram / Nelaturu (V), Muthukur(M),
SPSR Nellore (Dist.) -524344.

Discipline: Chemical

Group: Waste water

Sample Location: **Ash Pond Effluent Water**

Date of Monitoring: 20.02.2024

Sample Collected By: Ganesh

Sample Registration Date: 21.02.2024

Analysis Starting Date: 21.02.2024

Analysis Completed Date: 27.02.2024

Issue Date: 27.02.2024

Lab Ref: SEPL/ES/SEILEILP/02-24/0001

TEST RESULT

S.NO	TEST PARAMETERS	UNIT	TEST METHOD	RESULT	STANDARD
1.	pH	---	IS:3025(Part-11)1983	7.31	6.5-8.5
2.	Color	Hazen	IS-3025(Part-4)2021	Colorless	Colorless
3.	Odor	---	IS-3025(Part-5)	Agreeable	Agreeable
4.	Total Suspended Solids	mg/l	IS:3025(Part-11)1983	27	100
5.	Chemical Oxygen Demand (COD)	mg/l	IS:3025(Part-58)-2006	93	250
6.	Biochemical Oxygen Demand (BOD) (3 days at 27 °C)	mg/l	IS:3025(Part-44)-1993	58	100
7.	Oil & Grease	mg/l	IS:3025(Part-39)-1991	4.2	10
8.	Total Arsenic as As	mg/l	IS:3025(Part-37)-1988	<0.01	0.2
9.	Mercury as Hg	mg/l	IS:3025(Part-48)-1994	<0.001	0.01
10.	Lead as Pb	mg/l	IS:3025(Part-47)-1994	<0.01	2.0
11.	Cadmium as Cd	mg/l	IS:3025(Part-41)-1992	<0.001	2.0
12.	Hexavalent Chromium as Cr ⁶⁺	mg/l	IS:3025(Part-52)-2003	<0.001	1.0

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Near Pynampuram/ Nelaturu (V), Muthukur (M),
SPSR Nellore (Dist.)- 524344.

Discipline: Chemical

Group: Water

Product: Water

Location: Boiler Feed Water

Qty: 1 Ltrs

Packing: Plastic Container

Date of Sampling: 20.02.2024

Sample Registration Date: 21.02.2024

Analysis Starting Date: 21.02.2024

Issue Date: 27.02.2024

Lab Ref: SEPL/ES/SEILEILP/02-24/0001

Sample collected person details: S. Ganesh

TEST RESULT

S. NO	TEST PARAMETERS	TEST METHOD	UNITS	STANDARDS	RESULTS
1	Total Suspended Solids	IS 3025(P-17)1984	mg/l	100	3.8
2	Oil & Grease	IS 3025(P-39)2021	mg/l	<1.3	<1.0
3	Copper (Total)	IS 3025(P-42)1992	mg/l	1.0	0.42
4	Ferrous as Fe ⁺	IS 3025(P-53)2003	mg/l	1.0	0.39
5	Free Available Chlorine	IS 3025(P-26)1986	mg/l	<0.3	0.01

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Near Pynampuram/ Nelaturu (V), Muthukur (M),
SPSR Nellore (Dist.) -524344.

Discipline: Chemical

Group: Water

Product: Water

Location: Cooling Tower Blow Down

Qty: 1 Ltrs

Packing: Plastic Container

Date of Sampling: 20.02.2024

Sample Registration Date: 21.02.2024

Analysis Starting Date: 21.02.2024

Issue Date: 27.02.2024

Lab Ref: SEPL/ES/SEILEILP/02-24/0002

Sample collected person details: S. Ganesh

TEST RESULT

S. NO	TEST PARAMETERS	TEST METHOD	UNITS	STANDARDS	RESULTS
1	Zinc	IS 3025(P-49)1994	mg/l	1.0	0.26
2	Chromium (Total)	IS 3025(P-52)2023	mg/l	0.2	BDL
3	Phosphate	IS 3025(P-31)1998	mg/l	5.0	3.9
4	Free Available Chlorine	IS 3025(P-26)1986	mg/l	0.5	0.1

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Discipline: Chemical Group: Water Product: Marine Outfall Water Date of Sampling: 20.02.2024 Sample Collected By: Ganesh	Sample Registration Date: 21.02.2024 Analysis Starting Date: 21.02.2024 Analysis Completed Date: 27.02.2024 Issue Date: 27.02.2024 Lab Ref: SEPL/ES/SEILEILP/02-24/0001

TEST RESULT

S. NO	TEST PARAMETERS	TEST METHOD	UNITS	RESULTS	STANDARDS
1	pH	IS:3025(Part-11)1983	--	6.9	6.5-8.5
2	Temperature Intake	--	°C	28.3	Shall not exceed 5°C above the Receiving temperature
3	Temperature Out Fall	--	°C	30.7	
4	Electric Conductivity	IS: 3025:1964	µs/cm	28,266	--
5	Total Dissolved Solids	IS:3025(Part-15)1984	mg/l	19,665	--
6	Total Suspended Solids	IS:3025(Part-15)1984	mg/l	75	100
7	Chemical Oxygen Demand	IS:3025(Part-58)-2006	mg/l	66	250
8	Biochemical Oxygen Demand (3 days at 27°C)	IS:3025(Part-44)-1993	mg/l	32	100
9	Oil & Grease	IS:3025(Part-39)-1991	mg/l	<1.0	10
10	Total Hardness as CaCO ₃	IS:3025(Part-21)-2012	mg/l	3,365	--
11	Total Alkalinity as CaCO ₃	IS:3025(Part-23)-2012	mg/l	469	--
12	P- Alkalinity as CaCO ₃	IS:3025(Part-13)-1964	mg/l	Nil	--
13	Turbidity	IS:3025(Part-10)-2012	NTU	2.9	--
14	Calcium as Ca	IS:3025(Part-40)-2012	mg/l	1,334	--
15	Magnesium as Mg	IS:3025(Part-46)-2012	mg/l	239	--
16	Sodium as Na	IS:3025(Part-45)1993	mg/l	671	--

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S. No	TEST PARAMETERS	TEST METHOD	UNITS	RESULTS	STANDARDS
17	Potassium as K	IS:3025(Part-45)-1993	mg/l	366	--
18	Chloride as Cl	IS:3025(Part-32)-2012	mg/l	8,133	--
19	Sulphates as SO ₄	IS:3025(Part-24)-2012	mg/l	772	--
20	Nitrates as NO ₃	IS:3025(Part-34)-2012	mg/l	42.3	--
21	Carbonates as CO ₃	IS:3025(Part-51)-2017	mg/l	Nil	--
22	Bio Carbonates as HCO ₃	IS:3025(Part-51)-2017	mg/l	556	--
23	Iron as Fe	IS:3025(Part-53)-2012	mg/l	1.5	--
24	Flouride as F	IS:3025(Part-60)-2012	mg/l	2.4	--
25	Copper as Cu	IS:3025(Part-42)-2012	mg/l	0.35	--
26	Manganese as Mn	IS:3025(Part-59)-2012	mg/l	0.43	--
27	Phenolic Compounds as C ₆ H ₅ OH	IS:3025(Part-43)-2012	mg/l	<0.005	--
28	Cadmium as Cd	IS:3025(Part-41)-2012	mg/l	<0.005	2.0
29	Mercury as Hg	IS:3025(Part-48)-2012	mg/l	<0.001	0.01
30	Selenium as Se	IS:3025(Part-56)-2012	mg/l	<0.005	--
31	Arsenic as As	IS:3025(Part-37)-2012	mg/l	<0.01	0.2
32	Cyanide as CN	IS:3025(Part-27)-2012	mg/l	<0.01	--
33	Lead as Pb	IS:3025(Part-47)-2012	mg/l	<0.01	2.0
34	Zinc as Zn	IS:3025(Part-49)-2012	mg/l	0.29	--
35	Hexavalent Chromium as Cr ⁺⁶	IS:3025(Part-38)-1964	mg/l	<0.001	1.0
36	Boron as B	IS:3025(Part-57)-2012	mg/l	0.005	--
37	Silica as SiO ₂	IS:3025(Part-35)-2019	mg/l	25.7	--

Note: IS- Indian Standard

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SPECTRA ENVIROTECH PVT LTD

Accredited by MoEF & Accredited by NABL (TC-9903)

Environmental, Micro Biology, Analytical Testings & RO, ETP, STP's Engineering

TEST REPORT

ISSUED TO:

M/s. SEIL ENERGY INDIA LIMITED PROJECT-1
(2x660 MW Coal Based Thermal Power Plant),
Near Pynampuram / Nelaturu (V), Muthukur (M),
SPSR Nellore (Dist.) -524344.

Discipline: Chemical

Group: Water

Product: Marine Outfall Water

Date of Sampling: 20.02.2024

Sample Collected By: Ganesh

Sample Registration Date: 21.02.2024

Analysis Starting Date: 21.02.2024

Analysis Completed Date: 27.02.2024

Issue Date: 27.02.2024

Lab Ref: SEPL/ES/SEILEILP/02-24/0002

TEST RESULT

TEST SPECIES	SOURCE OF ORGANISM	LENGTH & WEIGHT (For Fish)	REMARKS
Zebra Fish	Through vendors	1. Length 4.3 cm 2. Weight 3.2 gm	1. Fish were not fed <u>Yes</u> 2. Temperature range in aquarium 25°C

REFERENCE TEST DATA

START DATE: 21.02.2024

END DATE: 27.02.2024

COMMENTS:

The test species undergone toxicity for about 96 Hrs.
RESULT: 97% survival of fish was noticed

Testing: As per M.L.Jackson & FAO –Food and Agriculture Organization

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LABORATORY : Plot No 142/1, Eruvada Junction, Sabbavaram (M), Vizag - 531 035

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ANNEXURE- II



SPECTRA ENVIROTECH PVT LTD

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Environmental, Micro Biology, Analytical Testings & RO, ETP, STP's Engineering

TEST REPORT

ISSUED TO:

M/s. SEIL ENERGY INDIA LIMITED PROJECT-1

(2x660 MW Coal Based Thermal Power Plant)

Near Pynampuram / Nelaturu (V), Muthukur (M),

SPSR Nellore (Dist.) - 524344.

Group: Atmospheric Pollution

Product: Stack Emission Monitoring- MAY 2023

Location: Unit#1 (Stack Attached to 660 MW Boiler)

Date of Monitoring: 24.05.2023

Sample Registration Date: 25.05.2023

Analysis Starting Date: 26.05.2023

Analysis Completed Date: 29.05.2023

Issue Date: 30.05.2023

Lab Ref: SEPL/ES/SEILEILP/05-23/0001

TEST RESULT

1. Time of Sampling ---- : 10:30 Hrs. to 11:30 Hrs.
2. Time Duration : 00:60 Hrs.
3. Ambient Temperature (° C) : 33.2
4. Flue gas Temperature (° C) : 143
5. Velocity of the flue gas (m/sec) : 25.1
6. C/s area of the duct (m³) : 33.20
7. Stack Diameter (m) : 6.5
8. Flue gas Flow Rate (Nm³/Hr) : 2995171

S.NO	TEST PARAMETERS	TEST METHOD	UNITS	STANDARDS	RESULTS
1.	Particulate Matter (PM)	IS 11255 (part-1)1985	mg/Nm ³	<50	35.5
2.	Sulphur Dioxide (SO ₂)	IS 11255 (part-2)1985	mg/Nm ³	-	685
3.	Oxides of Nitrogen (NO _x)	IS 11255 (part-7)1985	mg/Nm ³	450	284
4.	Carbon Monoxide (CO)	NSPS Test Method-10	ppm	-	1.5
5.	Mercury as Hg	State of California Air Resources Board, Method 10A	mg/Nm ³	0.03	<0.01

Instrument Details:

Instrument : Stack Monitoring Kit
Make : Sree Scientific Equipment
Model / SI No : Sem-150/220206
Calibration Due : 28.02.2024

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LABORATORY : Plot No 142/1, Eruvada Junction, Sabbavaram (M), Vizag - 531 035

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TEST REPORT

ISSUED TO:

M/s. SEIL ENERGY INDIA LIMITED PROJECT-1

(2x660 MW Coal Based Thermal Power Plant)

Near Pynampuram / Nelaturu (V), Muthukur (M),

SPSR Nellore (Dist.) - 524344.

Group: Atmospheric Pollution

Product: Stack Emission Monitoring- MAY 2023

Location: Unit#2 (Stack Attached to 660 MW Boiler)

Date of Monitoring: 24.05.2023

Sample Registration Date: 25.05.2023

Analysis Starting Date: 26.05.2023

Analysis Completed Date: 29.05.2023

Issue Date: 30.05.2023

Lab Ref: SEPL/ES/SEILEILP/05-23/0002

TEST RESULT

1. Time of Sampling ---- : 11:40 Hrs. to 12:30 Hrs.
2. Time Duration : 00:50 Hrs.
3. Ambient Temperature (° C) : 33.1
4. Flue gas Temperature (° C) : 143
5. Velocity of the flue gas (m/sec) : 25.12
6. C/s area of the duct (m³) : 33.20
7. Stack Diameter (m) : 6.5
8. Flue gas Flow Rate (Nm³/Hr) : 3002342

S.NO	TEST PARAMETERS	TEST METHOD	UNITS	STANDARDS	RESULTS
1.	Particulate Matter (PM)	IS 11255 (part-1)1985	mg/Nm ³	<50	32.2
2.	Sulphur Dioxide (SO ₂)	IS 11255 (part-2)1985	mg/Nm ³	-	738
3.	Oxides of Nitrogen (NO _x)	IS 11255 (part-7)1985	mg/Nm ³	450	312
4.	Carbon Monoxide (CO)	NSPS Test Method-10	ppm	-	1.2
5.	Mercury as Hg	State of California Air Resources Board, Method 10A	mg/Nm ³	0.03	<0.01

Instrument Details:

Instrument : Stack Monitoring Kit
Make : Sree Scientific Equipment
Model / SI No : Sem-150/220206
Calibration Due : 28.02.2024

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TEST REPORT

ISSUED TO:

M/s. SEIL ENERGY INDIA LIMITED PROJECT-1

(2x660 MW Coal Based Thermal Power Plant)

Near Pynampuram / Nelaturu (V), Muthukur(M),

SPSR Nellore (Dist.) -524344.

Group: Atmospheric Pollution

Product: Stack Emission Monitoring- A

UGUST 2023

Location: Unit#1(Stack Attached to 660 MW Boiler)

Date of Monitoring: 18.08.2023

Sample Registration Date: 19.08.2023

Analysis Starting Date: 19.08.2023

Analysis Completed Date: 26.08.2023

Issue Date:26.08.2023

Lab Ref: SEPL/ES/SEILEILP/08-23/0001

TEST RESULT

1. Time of Sampling ---- :10:30 Hrs. to 11:30 Hrs.
2. Time Duration :00:60 Hrs.
3. Ambient Temperature (°C) : 33.2
4. Flue gas Temperature (°C) : 146
5. Velocity of the flue gas (m/sec) :25.32
6. C/s area of the duct (m³) :33.20
7. Stack Diameter (m) : 6.5
8. Flue gas Flow Rate (Nm³/Hr) :3026246.4

S.NO	TEST PARAMETERS	TEST METHOD	UNITS	STANDARDS	RESULTS
1.	Particulate Matter (PM)	IS 11255 (part-1)1985	mg/Nm ³	<50	31.1
2.	Sulphur Dioxide (SO ₂)	IS 11255 (part-2)1985	mg/Nm ³	-	662
3.	Oxides of Nitrogen (NO _x)	IS 11255 (part-7)1985	mg/Nm ³	450	257
4.	Carbon Monoxide (CO)	NSPS Test Method-10	ppm	-	1.3
5.	Mercury as Hg	State of California Air Resources Board, Method10A	mg/Nm ³	0.03	< 0.01

Instrument Details:

Instrument : Stack Monitoring Kit
Make : Sree Scientific Equipment
Model / SI No :Sem-150/220206
Calibration Due :28.02.2024

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TEST REPORT

ISSUED TO:

M/s. SEIL ENERGY INDIA LIMITED PROJECT-1
(2x660 MW Coal Based Thermal Power Plant)
Near Pynampuram / Nelaturu (V), Muthukur(M),
SPSR Nellore (Dist.) -524344.

Group: Atmospheric Pollution

Product: Stack Emission Monitoring- AUGUST 2023

Location: Unit#2(Stack Attached to 660 MW Boiler)

Date of Monitoring: 18.08.2023

Sample Registration Date: 19.08.2023

Analysis Starting Date: 19.08.2023

Analysis Completed Date: 26.08.2023

Issue Date: 26.08.2023

Lab Ref: SEPL/ES/SEILEILP/08-23/0002

TEST RESULT

1. Time of Sampling ---- : 11:40 Hrs. to 12:30 Hrs.
2. Time Duration : 00:50 Hrs.
3. Ambient Temperature (°C) : 33.1
4. Flue gas Temperature (°C) : 148
5. Velocity of the flue gas (m/sec): 25.14
6. C/s area of the duct (m³) : 33.20
7. Stack Diameter (m) : 6.5
8. Flue gas Flow Rate(Nm³/Hr): 3004732.8

S.NO	TEST PARAMETERS	TEST METHOD	UNITS	STANDARDS	RESULTS
1.	Particulate Matter (PM)	IS 11255 (part-1)1985	mg/Nm ³	<50	39.1
2.	Sulphur Dioxide (SO ₂)	IS 11255 (part-2)1985	mg/Nm ³	-	761
3.	Oxides of Nitrogen (NO _x)	IS 11255 (part-7)1985	mg/Nm ³	450	334
4.	Carbon Monoxide (CO)	NSPS Test Method-10	ppm	-	1.5
5.	Mercury as Hg	State of California Air Resources Board, Method10A	mg/Nm ³	0.03	<0.01

Instrument Details:

Instrument : Stack Monitoring Kit
Make : Sree Scientific Equipment
Model / SI No : Sem-150/220206
Calibration Due : 28.02.2024

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(2x660 MW Coal Based Thermal Power Plant),
Near Pynampuram / Nelaturu (V), Muthukur (M),
SPSR Nellore (Dist.) -524344.

Group: Atmospheric Pollution

Product: Stack Emission Monitoring- November 2023

Location: Unit#1 (Stack Attached to 660 MW Boiler)

Date of Monitoring: 10.11.2023

Sample Registration Date: 11.11.2023

Analysis Starting Date: 11.11.2023

Analysis Completed Date: 17.11.2023

Issue Date: 18.11.2023

Lab Ref: SEPL/ES/SEILEILP/11-23/0001

TEST RESULT

1. Time of Sampling ---- : 10:30 Hrs. to 11:30 Hrs.
2. Time Duration : 00:60 Hrs.
3. Ambient Temperature (°C) : 33.8
4. Flue gas Temperature (°C) : 144
5. Velocity of the flue gas (m/sec) : 24.84
6. C/s area of the duct (m³) : 33.20
7. Stack Diameter (m) : 6.5
8. Flue gas Flow Rate (Nm³/Hr) : 2968876

S.NO	TEST PARAMETERS	TEST METHOD	UNITS	STANDARDS	RESULTS
1.	Particulate Matter (PM)	IS 11255 (part-1)1985	mg/Nm ³	<50	28.4
2.	Sulphur Dioxide (SO ₂)	IS 11255 (part-2)1985	mg/Nm ³	-	674
3.	Oxides of Nitrogen (NO _x)	IS 11255 (part-7)1985	mg/Nm ³	450	262
4.	Carbon Monoxide (CO)	NSPS Test Method-10	ppm	-	1.3
5.	Mercury as Hg	State of California Air Resources Board, Method10A	mg/Nm ³	0.03	<0.01

Instrument Details:

Instrument : Stack Monitoring Kit
Make : Sree Scientific Equipment
Model / SI No : Sem-150/220206
Calibration Due :28.02.2024

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Near Pynampuram / Nelaturu (V), Muthukur (M),
SPSR Nellore (Dist.) -524344.

Group: Atmospheric Pollution

Product: Stack Emission Monitoring- November 2023

Location: Unit#2 (Stack Attached to 660 MW Boiler)

Date of Monitoring: 10.11.2023

Sample Registration Date: 11.11.2023

Analysis Starting Date: 11.11.2023

Analysis Completed Date: 17.11.2023

Issue Date: 18.11.2023

Lab Ref: SEPL/ES/SEILEILP/11-23/0002

TEST RESULT

1. Time of Sampling ---- : 11:40 Hrs. to 12:30 Hrs.
2. Time Duration : 00:50 Hrs.
3. Ambient Temperature (°C) : 33.6
4. Flue gas Temperature (°C) : 145
5. Velocity of the flue gas (m/sec) : 24.56
6. C/s area of the duct (m³) : 33.20
7. Stack Diameter (m) : 6.5
8. Flue gas Flow Rate (Nm³/Hr) : 2935411

S.NO	TEST PARAMETERS	TEST METHOD	UNITS	STANDARDS	RESULTS
1.	Particulate Matter (PM)	IS 11255 (part-1)1985	mg/Nm ³	<50	25.7
2.	Sulphur Dioxide (SO ₂)	IS 11255 (part-2)1985	mg/Nm ³	-	741
3.	Oxides of Nitrogen (NO _x)	IS 11255 (part-7)1985	mg/Nm ³	450	326
4.	Carbon Monoxide (CO)	NSPS Test Method-10	ppm	-	1.3
5.	Mercury as Hg	State of California Air Resources Board, Method10A	mg/Nm ³	0.03	<0.01

Instrument Details:

Instrument : Stack Monitoring Kit
Make : Sree Scientific Equipment
Model / SI No : Sem-150/220206
Calibration Due : 28.02.2024

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(2x660 MW Coal Based Thermal Power Plant),
Near Pynampuram / Nelaturu (V), Muthukur(M),
SPSR Nellore (Dist.) -524344.

Group: Atmospheric Pollution

Product: Stack Emission Monitoring- February 2024

Location: Unit#1 (Stack Attached to 660 MW Boiler)

Date of Monitoring: 20.02.2024

Sample Registration Date: 21.02.2024

Analysis Starting Date: 21.02.2024

Analysis Completed Date: 27.02.2024

Issue Date: 27.02.2024

Lab Ref: SEPL/ES/SEILEILP/02-24/0001

TEST RESULT

1. Time of Sampling ---- : 10:30 Hrs. to 11:30 Hrs.
2. Time Duration : 00:60 Hrs.
3. Ambient Temperature (°C) : 34.1
4. Flue gas Temperature (°C) : 148
5. Velocity of the flue gas (m/sec) : 25.92
6. C/s area of the duct (m³) : 33.20
7. Stack Diameter (m) : 6.5
8. Flue gas Flow Rate (Nm³/Hr) : 2978438.4

S.NO	TEST PARAMETERS	TEST METHOD	UNITS	STANDARDS	RESULTS
1.	Particulate Matter (PM)	IS 11255 (part-1)1985	mg/Nm ³	<50	31.2
2.	Sulphur Dioxide (SO ₂)	IS 11255 (part-2)1985	mg/Nm ³	-	681
3.	Oxides of Nitrogen (NO _x)	IS 11255 (part-7)1985	mg/Nm ³	450	269
4.	Carbon Monoxide (CO)	NSPS Test Method-10	ppm	-	1.5
5.	Mercury as Hg	State of California Air Resources Board, Method10A	mg/Nm ³	0.03	<0.01

Instrument Details:

Instrument : Stack Monitoring Kit
Make : Sree Scientific Equipment
Model / SI No : Sem-150/220206
Calibration Due : 27.02.2025

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Near Pynampuram / Nelaturu (V), Muthukur(M),
SPSR Nellore (Dist.) -524344.

Group: Atmospheric Pollution

Product: Stack Emission Monitoring- February 2024

Location: Unit#2 (Stack Attached to 660 MW Boiler)

Date of Monitoring: 20.02.2024

Sample Registration Date: 21.02.2024

Analysis Starting Date: 21.02.2024

Analysis Completed Date: 27.02.2024

Issue Date: 27.02.2024

Lab Ref: SEPL/ES/SEILEILP/02-24/0002

TEST RESULT

1. Time of Sampling ---- : 11:40 Hrs. to 12:30 Hrs.
2. Time Duration : 00:50 Hrs.
3. Ambient Temperature (°C) : 34.1
4. Flue gas Temperature (°C) : 149
5. Velocity of the flue gas (m/sec) : 25.69
6. C/s area of the duct (m³) : 33.20
7. Stack Diameter (m) : 6.5
8. Flue gas Flow Rate (Nm³/Hr) : 2950948.8

S.NO	TEST PARAMETERS	TEST METHOD	UNITS	STANDARDS	RESULTS
1.	Particulate Matter (PM)	IS 11255 (part-1)1985	mg/Nm ³	<50	26.3
2.	Sulphur Dioxide (SO ₂)	IS 11255 (part-2)1985	mg/Nm ³	-	749
3.	Oxides of Nitrogen (NO _x)	IS 11255 (part-7)1985	mg/Nm ³	450	335
4.	Carbon Monoxide (CO)	NSPS Test Method-10	ppm	-	1.5
5.	Mercury as Hg	State of California Air Resources Board, Method10A	mg/Nm ³	0.03	<0.01

Instrument Details:

Instrument : Stack Monitoring Kit
Make : Sree Scientific Equipment
Model / SI No : Sem-150/220206
Calibration Due : 27.02.2025

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