

SEIL / APPCB/BZA/2020/020

30<sup>th</sup> June'2020

**Sembcorp Energy India Limited**

(Formerly Thermal Powertech Corporation India Ltd)

CIN: U40103TG2008PLC057031

Corp. Office: 5th Floor, Tower C, Building No 8

DLF Cybercity, Gurgaon - 122002, Haryana, India

Tel (91) 124 389 6700 / 01

Fax (91) 124 389 6710

[www.semcorpenergyindia.com](http://www.semcorpenergyindia.com)

To

**The Member Secretary**

**Andhra Pradesh Pollution Control Board**

**D. No. 33-26-14 D/2, Near Sunrise Hospital,**

**Pushpa Hotel Centre, Chelamavari Street,**

**Kasturibaipet, Vijayawada – 520010.**

**Sub: SEIL (formerly known as Thermal Powertech Corporation India Limited – TPCIL) - Submission of Six-Monthly CFO Conditions Compliance Report (Oct'19 to March'2020)**

**Ref: Consent Order to SEIL (formerly known as Thermal Powertech Corporation India Limited – TPCIL) Ref: APPCB/VJA/ NLR/930/HO/CFO/ 2018-: dated 23.03.2018.**

Dear Sir,

With reference to the above-mentioned subject matter and reference cited, we hereby submit the Six-monthly CFO conditions compliance report (Oct'19 to March'2020) for your kind consideration.

Thanking you

Yours Truly

For M/s. Sembcorp Energy India Limited



**(Pavan Kumar Rao V)**

**Head HSE - SEIL**

Enclosed Annexure.

**CC: The Regional Officer, APPCB, Nellore**

# **COMPLIANCE STATUS REPORT OF Sembcorp Energy India Limited**

***(Formerly Known as THERMAL POWERTECH CORPORATION INDIA LTD)***

***PAINAMPURAM & NELATURU VILLAGES, MUTHUKUR MANDAL***

***SPSR NELLORE DISTRICT***

***ANDHRA PRADESH***



**Compliance to Consent for Operation (CFO) Conditions**

**Period: (Oct'2019 to March'2020)**

**June'2020**



## ANDHRA PRADESH POLLUTION CONTROL BOARD

D.No. 33-26-14 D/2, Near Sunrise Hospital, Pushpa Hotel Centre,  
Chalamalavari Street, Kasturbaipet, Vijayawada - 520010  
Website: [www.appcb.ap.nic.in](http://www.appcb.ap.nic.in)

### BY REGD POST WITH ACK. DUE

Consent Amendment Order No: APPCB/VJA/NLR/930/HO/CFO/2018-

Date: 23.03.2018

**Sub:** APPCB - UH: IV - CFO - M/s. Thermal Powertech Corporation India Limited, Painampuram & Nelaturu Villages, Muthukur Mandal, SPSR Nellore District - Amendment to CFO&HWA Order - Issued - Reg.

**Ref:** 1. T.O. Consent Order No: APPCB/VJA/NLR/930/HO/CFO/2016-, dated 21.11.2016.  
2. Industry's representation letter dated 19.02.2018.  
3. CFO Committee Meeting held on 15.03.2018.

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The Board in the reference 1<sup>st</sup> cited, has issued combined CFO&HWA order to M/s. Thermal Powertech Corporation India Limited, Painampuram & Nelaturu Villages, Muthukur Mandal, SPSR Nellore District with validity upto 30.11.2021 duly stipulating conditions.

The industry in the reference 2<sup>nd</sup> cited, has requested for amendment in name from M/s. Thermal Powertech Corporation India Limited to M/s. SEMBCORP ENERGY INDIA LIMITED stating that fresh certificate of incorporation was issued by the Registrar of Companies (ROC), Hyderabad, Telangana effecting the change of name of the company. The issue was placed in the CFO Committee meeting of the Board held on 15.03.2018 and the committee recommended to issue amendment to the CFO&HWA Order duly incorporating the name change as per the fresh certificate of incorporation issued by the Registrar of Companies (ROC), Hyderabad, Telangana dated 10.02.2018.

The Board after careful examination of the request of the industry, hereby issues amendment to combined CFO & HWA Order issued in the reference 1<sup>st</sup> cited under Section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 under section 21 of the Air (Prevention and Control of Pollution) Act, 1981 and amendments thereof & under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and amendments thereof.

#### Amendment:

The name of the industry is changed from M/s. Thermal Powertech Corporation India Limited, Painampuram & Nelaturu Villages, Muthukur Mandal, SPSR Nellore District and here after read as below:

**Name: M/s. SEMBCORP ENERGY INDIA LIMITED ,  
Painampuram & Nelaturu Villages,  
Muthukur Mandal, SPSR Nellore District – 524 344, A.P.**

All other conditions mentioned in Schedule – A, B & C of the combined CFO&HWA order issued by the Board in the reference 1<sup>st</sup> cited including the validity i.e.. 30.11.2021 will remain same.

Bandla Siva Sankar  
Prasad  
  
**MEMBER SECRETARY**

#### **To**

**M/s. SEMBCORP ENERGY INDIA LIMITED ,  
Painampuram & Nelaturu Villages,  
Muthukur Mandal, SPSR Nellore District – 524 344, A.P.  
Email: v.maheswaran@sembcorp.com**

#### **Copy to:**

1. The JCEE, ZO: Vijayawada for information and necessary action.
2. The JCEE (UH: II), Vijayawada for information.
3. The EE, RO: Nellore for information and necessary action.

**Condition wise Compliance to**  
**AP Pollution Control Board CFO dt 23<sup>rd</sup> March 2018**

<b>Sr. No.</b>	<b>Condition mentioned in CFO Order</b>	<b>Compliance</b>
<b>Schedule - A</b>		
1	Any upset condition in any industrial plant /activity of the industry, which result in, increase effluent /emission discharge and /or violation of standards stipulated in this order shall be informed to this Board, under intimation to the Collector and District Magistrate and take immediate action to bring down the discharge/emission below the limits	Complying
2	The industry shall carryout analysis of waste water discharges or emissions through chimneys for the parameters mentioned in this order on quarterly basis and submit to the Board.	Complying
3	All the rules & Regulations notified by Ministry of Law and Justice, Government of India regarding Public liability Insurance Act,1991 shall be followed as applicable.	Complying
4	The industry shall put up two sign boards (6X4 ft. each) at publicly visible places at the main gate indicating the products, effluent discharge standards, air emission standards, hazardous waste quantities and validity of CFO and exhibit the CFO order at a prominent place in the factory premises.	Complying
5	Not withstanding anything contained in this consent order the Board hereby reserves the right and powers to review/ revoke any and /or all the conditions imposed herein above and to make such variations as deemed fit for the purpose of the Acts by the Board.	Noted

6	<p>The Industry shall file the water cess returns in Form-I as require under Section (5) of Water (Prevention and Control of Pollution) Cess Act, 1977 on or before the 5<sup>th</sup> of every calender month, showing the quantity of water consumed in the previous month along with water meter readings. The industry shall remit water cess as per the assessment order as and when issued by the Board.</p>	<p>As per the Ministry of Finance, Govt. of India with effect from 1<sup>st</sup> July'2017 the water cess has been abolished. However, we are submitting the returns once in six months to APPCB.</p>
7	<p>The applicant shall submit Environment Statement in Form V before 30<sup>th</sup> September every year as per Rule no.14 of E(P) Rules 1986 &amp; amendments thereof.</p>	<p>Complying</p>
8	<p>The industry shall make applications through Online for renewal of Consent (Under Water and Air Acts) and Authorization under HWM Rules at least 120 days before the date of expiry of this order, along with prescribed fee under Water and Air Acts and detailed compliance of CFO conditions for obtaining Consent &amp; HW Authorization of the Board. The industry shall immediately submit the revised application for consent to this Board in the event of any change in the raw material use, process employed, quantity of trade effluents &amp; Quantity of emissions. Any change in the management shall be informed to the Board. The person authorize shall not let out the premises /lend/sell/transfer their industrial premises without obtaining prior permission of the State Pollution Control Board.</p>	<p>Noted</p>
9	<p>Any person aggrieved by an order made by the State Board under Section 25, Section 26, Section 27 of water Act, 1974 or Section 21 of Air Act, 1981 may within thirty days from the date on which the order is communicated to him, prefer an appeal as per Andhra Pradesh Water Rules, 1976 and Air Rules 1982 to Appellate authority constituted under Section 28 of the Water(Prevention and Control of Pollution) Act,1974 and Section 31 of the Air (Prevention and Control of Pollution) Act 1981.</p>	<p>Noted</p>

1	<p>The industry shall comply with the following effluent standards based on the disposal points permitted:</p> <table border="1" data-bbox="314 437 865 931"> <thead> <tr> <th>Outlet</th><th>Parameter</th><th>Limiting standards</th></tr> </thead> <tbody> <tr> <td rowspan="10">1 to 3</td><td>pH</td><td>6.5 to 8.5</td></tr> <tr> <td>Suspended solids</td><td>100 mg/l</td></tr> <tr> <td>Oil &amp; Grease</td><td>10 mg/l</td></tr> <tr> <td>Temperature</td><td>Shall not exceeded 5° C above the receiving water temperature</td></tr> <tr> <td>Biochemical oxygen demand (3 days at 27°C)</td><td>100 mg/l</td></tr> <tr> <td>Chemical Oxygen Demand (COD)</td><td>250 mg/l</td></tr> <tr> <td>Arsenic</td><td>0.2 mg/l</td></tr> <tr> <td>Mercury</td><td>0.01 mg/l</td></tr> <tr> <td>Lead</td><td>2.0 mg/l</td></tr> <tr> <td>Cadmium</td><td>2.0 mg/l</td></tr> <tr> <td rowspan="8">5 to 8</td><td>Hexavalent Chromium</td><td>1.0 mg/l</td></tr> <tr> <td>Bio-assay test</td><td>90% survival fish after 96 hours in 100% effluents</td></tr> <tr> <td>pH</td><td>5.5 - 9.0</td></tr> <tr> <td>Suspended solids</td><td>100 mg/l</td></tr> <tr> <td>Oil &amp; Grease</td><td>10 mg/l</td></tr> <tr> <td>Biochemical oxygen demand (3 days at 27°C)</td><td>100 mg/l</td></tr> <tr> <td>Arsenic (as As)</td><td>0.2 mg/l</td></tr> <tr> <td>Cyanide (as CN)</td><td>0.2 mg/l</td></tr> <tr> <td rowspan="3">5 to 8</td><td>Bio-assay test</td><td>90% survival fish after 96 hours in 100% effluents</td></tr> <tr> <td>Copper (Total)</td><td>1 mg/l</td></tr> <tr> <td>Iron (Total)</td><td>1 mg/l</td></tr> </tbody> </table>	Outlet	Parameter	Limiting standards	1 to 3	pH	6.5 to 8.5	Suspended solids	100 mg/l	Oil & Grease	10 mg/l	Temperature	Shall not exceeded 5° C above the receiving water temperature	Biochemical oxygen demand (3 days at 27°C)	100 mg/l	Chemical Oxygen Demand (COD)	250 mg/l	Arsenic	0.2 mg/l	Mercury	0.01 mg/l	Lead	2.0 mg/l	Cadmium	2.0 mg/l	5 to 8	Hexavalent Chromium	1.0 mg/l	Bio-assay test	90% survival fish after 96 hours in 100% effluents	pH	5.5 - 9.0	Suspended solids	100 mg/l	Oil & Grease	10 mg/l	Biochemical oxygen demand (3 days at 27°C)	100 mg/l	Arsenic (as As)	0.2 mg/l	Cyanide (as CN)	0.2 mg/l	5 to 8	Bio-assay test	90% survival fish after 96 hours in 100% effluents	Copper (Total)	1 mg/l	Iron (Total)	1 mg/l	<p>Complying.</p> <p>Test reports of APPCB approved third party consultant on treated effluent quality is attached with this document.</p>
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2	<p>The source of water is sea. The following is the permitted water consumption:</p> <table border="1" data-bbox="322 1050 838 1364"> <thead> <tr> <th>S. No</th> <th>Purpose</th> <th>Quantity in KLD (for 2X660 MW)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>For cooling tower make up (saline water)</td> <td>1,98,256</td> </tr> <tr> <td>2.</td> <td><b>Non-cooling water - RO First pass</b></td> <td></td> </tr> <tr> <td></td> <td>i) Ash handling sealing</td> <td>2240</td> </tr> <tr> <td></td> <td>ii) Coal handling plant dust suppression</td> <td>4768</td> </tr> <tr> <td></td> <td>iii) High Vacuum AC make up</td> <td>1660</td> </tr> <tr> <td></td> <td>iv) Misc. services (for firefighting etc.)</td> <td>512</td> </tr> <tr> <td></td> <td>v) RO Reject</td> <td>22224</td> </tr> <tr> <td></td> <td>vi) Clarifier blow down</td> <td>1056</td> </tr> <tr> <td></td> <td><b>RO Second pass</b></td> <td></td> </tr> <tr> <td></td> <td>i. DM Plant</td> <td>2080</td> </tr> <tr> <td></td> <td>ii. Domestic (Plant)</td> <td>50</td> </tr> <tr> <td></td> <td><b>Total</b></td> <td><b>2,32,846</b></td> </tr> </tbody> </table> <p>Separate meters with necessary pipe-line shall be maintained for assessing the quantity of water used for each of the purposes mentioned above for CESS assessment purpose.</p>	S. No	Purpose	Quantity in KLD (for 2X660 MW)	1.	For cooling tower make up (saline water)	1,98,256	2.	<b>Non-cooling water - RO First pass</b>			i) Ash handling sealing	2240		ii) Coal handling plant dust suppression	4768		iii) High Vacuum AC make up	1660		iv) Misc. services (for firefighting etc.)	512		v) RO Reject	22224		vi) Clarifier blow down	1056		<b>RO Second pass</b>			i. DM Plant	2080		ii. Domestic (Plant)	50		<b>Total</b>	<b>2,32,846</b>	<p>Complying with the condition.</p> <p>The average seawater drawl during October 2019 to March 2020 is 1,52,250 KLD, which is well within permissible limits.</p> <p>Separate water meters are provided for Cooling Tower Makeup and Non-cooling water system.</p>									
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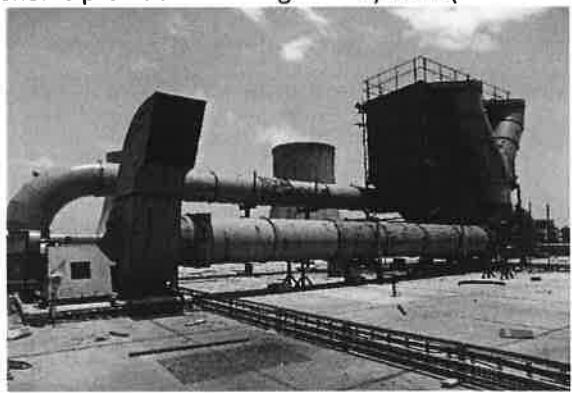
Sr. No.	Condition mentioned in CFO Order	Compliance
3	The industry shall provide separate digital water meters in the intake point of sea water (i.e. at sea coast) with totalizer facility to assess daily water consumption quantity instead of cumulative water consumptions.	<p><b>Complying.</b></p> <p>Separate digital water meters with totalizer facility are provided for Cooling Tower make-up and Desalination system. There is no other usage at SEIL.</p> <p>Monthly totalizer readings are captured jointly along with Port Conservator, Govt. of India in a separate log book.</p>
4	The industry shall comply with the MoEF&CC notification S.O. 3305(E), dated 07.12.2015 and S.O. 682 (E), dated 07.03.2016 as applicable pertaining to water consumption and report compliance to RO: Nellore.	<p><b>Not Applicable to SEIL.</b></p> <p>This requirement is applicable for fresh water usage. At SEIL, we are using sea water.</p> <p>The exemption notification is issued by MoEF&amp;CC vide notification GSR 593(E) dated 28<sup>th</sup> June 2018.</p>
5	The industry shall maintain separate flow meters preferably Electro Magnetic Flow meters with totalisers for water and effluent quantity measurements for different streams of effluents and different categories of water usage stipulated in this order.	<p><b>Complied.</b></p> <p>SEIL has provided separate flow meters with totalisers for measuring:</p> <ul style="list-style-type: none"> <li>• Cooling Tower Makeup</li> <li>• Desalination water</li> <li>• Cooling Tower blowdown</li> <li>• RO Reject water</li> <li>• ETP outlet</li> </ul>
6	The industry shall provide leachate collection tank to collect the leachate from garland drain of ash pond.	<p><b>Complied.</b></p> <p>The ash pond is provided with garland drains all around to collect leachates, if any. Separate Leachate collection tank to the garland drains is provided.</p> 

Sr. No.	Condition mentioned in CFO Order	Compliance															
7	The industry shall provide provision to collect the excess water from the ash pond into sea to control overflow of saline water from ash pond and to prevent irrigation tanks being polluted.	<p data-bbox="751 518 901 552"><b>Complying.</b></p> <p data-bbox="751 585 1527 686">SEIL ash pond has an overflow lagoon connected to decantation well of both lagoons and the water is recirculated to ash handling system for reuse.</p>															
8	<p data-bbox="274 725 735 826">The emissions shall not contain constituents in excess of the prescribed limits mentioned below:</p> <table border="1" data-bbox="274 859 735 1129"> <thead> <tr> <th data-bbox="274 859 377 927">Chimney No</th><th data-bbox="377 859 568 927">Parameter</th><th data-bbox="568 859 735 927">Emission standards</th></tr> </thead> <tbody> <tr> <td data-bbox="274 927 377 994">1&amp; 2</td><td data-bbox="377 927 568 994">Particular Matter</td><td data-bbox="568 927 735 994">50 mg/Nm<sup>3</sup></td></tr> <tr> <td data-bbox="274 994 377 1061"></td><td data-bbox="377 994 568 1061">Sulphur Dioxide</td><td data-bbox="568 994 735 1061">*200 mg/Nm<sup>3</sup></td></tr> <tr> <td data-bbox="274 1061 377 1129"></td><td data-bbox="377 1061 568 1129">Oxides of Nitrogen</td><td data-bbox="568 1061 735 1129">*300 mg/Nm<sup>3</sup></td></tr> <tr> <td data-bbox="274 1129 377 1129"></td><td data-bbox="377 1129 568 1129">Mercury</td><td data-bbox="568 1129 735 1129">*0.03 mg/Nm<sup>3</sup></td></tr> </tbody> </table> <p data-bbox="274 1162 743 1275">*The thermal power plant shall met the limits on or before 7<sup>th</sup> December, 2017 as per MoEF&amp;CC notification S.O. 3305 (E) dated 07.12.2015.</p>	Chimney No	Parameter	Emission standards	1& 2	Particular Matter	50 mg/Nm <sup>3</sup>		Sulphur Dioxide	*200 mg/Nm <sup>3</sup>		Oxides of Nitrogen	*300 mg/Nm <sup>3</sup>		Mercury	*0.03 mg/Nm <sup>3</sup>	<p data-bbox="751 725 1527 826">SEIL is complying with the emission norms of SPM. Test reports of APPCB approved third party consultant on emissions is attached with this document.</p> <p data-bbox="751 859 1527 972">Coal used by SEIL do not have even traces of Mercury. Coal samples are being tested regularly to ensure mercury emission are within norms.</p> <p data-bbox="751 1005 1527 1106">As per CPCB directions letter [Reference No: B-33014/07/2017-18/IPC-II/TPP/15840 Dtd. 11<sup>th</sup> Dec 2017, SEIL will be commissioning FGD to meet the SOX limits.</p> <p data-bbox="751 1140 1527 1207">Regarding NOX, the matter is sub-judice in the Supreme Court of India.</p> <p data-bbox="751 1241 1527 1353">Ministry of Power, CEA and CPCB are of the view that achieving 300 mg/Nm<sup>3</sup> may not be feasible. Hence the limit is proposed to be extended to 450 mg/Nm<sup>3</sup>.</p> <p data-bbox="751 1387 1527 1488">We have initiated tendering process for installation of FGD. Technical evaluation of bids received is completed and contract will be shortly awarded.</p> <div data-bbox="774 1510 1527 1656" style="border: 1px solid black; padding: 5px;"> <p data-bbox="782 1522 1519 1645">NOW, THEREFORE, taking into consideration all material facts including environmental concerns and ensuring stability of power supply and need for phasing the implementation, in exercise of powers vested under Section 5 of the Environment (Protection) Act, 1986, following directions are issued to M/s Thermal Powertech Corporation India Ltd :</p> </div> <div data-bbox="782 1672 1527 1858" style="border: 1px solid black; padding: 5px;"> <ul style="list-style-type: none"> <li data-bbox="782 1672 1527 1730">i. That plant shall install/retrofit Electrostatic Precipitators ( ESP) immediately so as to comply PM emission limit</li> <li data-bbox="782 1730 1527 1789">ii. That plant shall install FGD by December 31, 2021 in unit 1&amp;2 respectively so as to comply SO<sub>2</sub> emission limit</li> <li data-bbox="782 1789 1527 1858">iii. That plant shall take immediate measure like installation of low NO<sub>x</sub> burners, providing Over Fire Air ( OFA) etc. and achieve progressive reduction so as to comply NO<sub>x</sub> emission limit by the year 2022</li> </ul> </div>
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Sr. No.	Condition mentioned in CFO Order	Compliance
9	<p>The industry shall comply with ambient air quality standards of PM10 (Particulate Matter size less than 10<math>\mu\text{m}</math>) - 100 <math>\mu\text{g}/\text{m}^3</math>; PM2.5 (Particulate Matter size less than 2.5 <math>\mu\text{m}</math>) - 60 <math>\mu\text{g}/\text{m}^3</math>; SO<sub>2</sub> - 80 <math>\mu\text{g}/\text{m}^3</math>; NO<sub>x</sub> - 80 <math>\mu\text{g}/\text{m}^3</math>, outside the factory premises at the periphery of the industry.</p> <p>Standards for other parameters as mentioned in the National Ambient Air Quality Standards CPCB Notification No.B-29016/20/90/PCI-I, dated 18.11.2009.</p> <p>Noise Levels: Day time (6 AM to 10 PM) - 75 dB (A)</p> <p>Night time (10 PM to 6 AM) - 70 dB (A)</p>	<p><b>Complying.</b></p> <p>SEIL is complying with the air quality standards.</p> <p>Environment monitoring reports of APPCB approved third party consultant is attached with this document.</p>
10	<p>The industry shall comply with emission limits for DG sets of capacity upto 800 KW as per the Notification G.S.R.520 (E), dated 01.07.2003 under the Environment (Protection) Amendment Rules, 2003 and G.S.R.448(E), dated 12.07.2004 under the Environment (Protection) Second Amendment Rules, 2004. In case of DG sets of capacity more than 800 KW shall comply with emission limits as per the Notification G.S.R.489 (E), dated 09.07.2002 at serial no.96, under the Environment (Protection) Act, 1986.</p>	<p><b>Complying.</b></p> <p>SEIL is complying with the emission norms.</p>

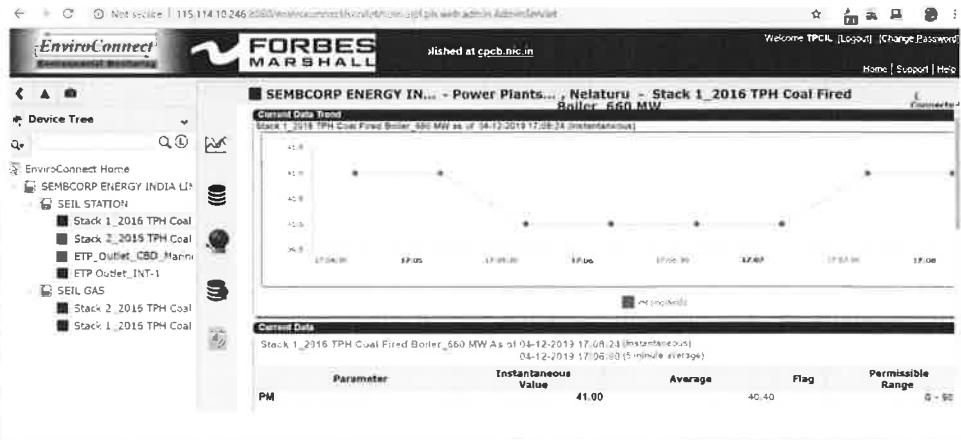
Sr. No.	Condition mentioned in CFO Order	Compliance
11	<p>The industry shall provide closed sheds for storage of coal. The industry shall provide wind barriers/ wind breaking walls to the coal yards as temporary arrangement to control fugitive dust emissions on immediate surroundings.</p>	<p>SEIL has provided wind barriers all around coal yard with thick Conocorpus trees. SEIL has transplanted 150 matured plants around coal yard.</p>  <p>In addition, SEIL has installed 160 numbers of water sprinklers with hydrant system in coal yard to suppress fugitive emissions.</p>  <p>SEIL has a coal yard of 150 acre and it is technically and operationally not feasible to construct closed sheds in the total coal yard area post erection and commissioning.</p> <p>The same has been submitted to the PCB during Taskforce committee meetings of Aug 2016 &amp; Dec 2017.</p>

Sr. No.	Condition mentioned in CFO Order	Compliance
12	The industry shall provide water sprinklers around the ash pond area to control fugitive emissions in the surrounding area within 2 months and report compliance to RO: Nellore.	<p><b>Complying.</b></p> <p>SEIL has provided water sprinklers in the ash pond to prevent fugitive dust emissions.</p> 
13	The industry shall regularly operate water sprinklers provided at the coal stock yard to mitigate fugitive dust on the surroundings from coal handling area.	<p><b>Complying.</b></p> <p>SEIL has installed &amp; operating 160 numbers of water sprinklers with hydrant system in coal yard to suppress fugitive emissions.</p>
14	The industry shall provide necessary air pollution control systems at coal transfer points in coal conveyer system from port boundary to industry premises within 3 months.	<p><b>Complying.</b></p> <p>Entire coal transportation from port boundary is through closed pipe conveyors. All the coal transfer points and coal crusher are provided with bag filter system (Dust extraction).</p>  <p><u>DE system at Transfer points</u></p>

Sr. No.	Condition mentioned in CFO Order	Compliance
15	The industry shall upgrade the air pollution control systems at coal crusher within 3 months.	<p><b>Complying.</b> Coal crusher is provided with bag filter system.(Dust Extraction)</p>  <p><u>DE system at Crusher House</u></p>
16	The industry shall provide separate energy meters along with totalizer facility for each ESP.	<p><b>Complying.</b> SEIL provided separate energy meters to ESPs.</p>
17	The industry shall comply with the MoEF&CC notification S.O. 3305(E), dated 07.12.2015 and S.O. 682 (E), dated 07.03.2016 as applicable and report compliance to RO: Nellore.	<p>As per CPCB directions letter [Reference No: B-33014/07/2017-18/IPC-II/TPP/15840 Dtd. 11<sup>th</sup> Dec 2017, SEIL will be commissioning FGD to meet the SOX limits.</p> <p>Regarding NOX, the matter is sub-judice in the Supreme Court of India.</p> <p>Ministry of Power, CEA and CPCB are of the view that achieving 300 mg/Nm<sup>3</sup> may not be feasible. Hence the limit is proposed to be extended to 450 mg/Nm<sup>3</sup>.</p> <p>We have initiated tendering process for installation of FGD. Technical evaluation of bids received is completed and contract will be shortly awarded.</p> <p><b>NOW, THEREFORE</b>, taking into consideration all material facts including environmental concerns and ensuring stability of power supply and need for phasing the implementation, in exercise of powers vested under Section 5 of the Environment (Protection) Act, 1986, following directions are issued to M/s Thermal Powertech Corporation India Ltd :</p> <ul style="list-style-type: none"> <li>i. That plant shall install/retrofit Electrostatic Precipitators ( ESP) immediately so as to comply PM emission limit</li> <li>ii. That plant shall install FGD by December 31, 2021 in unit 1&amp;2 respectively so as to comply SO<sub>2</sub> emission limit</li> <li>iii. That plant shall take immediate measure like installation of low NO<sub>x</sub> burners, providing Over Fire Air ( OFA) etc. and achieve progressive reduction so as to comply NO<sub>x</sub> emission limit by the year 2022</li> </ul>

Sr. No.	Condition mentioned in CFO Order	Compliance
18	The industry shall handover the Original Consent Order dated 15.02.2016 to the RO: Nellore after receipt of this CFO order.	Complied and the Consent Order dated 15.02.2016 has been handed over to the APPCB Regional Officer, Nellore.
19	The drums containing chemicals / solvents shall be stored under a roof on elevated platform with a provision to collect leakages / spillages in the collection pit.	<b>Complying.</b> All the chemicals / solvents containing drums are stored under a roof on elevated platforms with secondary containment system.
20	<p>The industry shall maintain the following records and the same shall be made available to the inspecting officers of the Board:</p> <ul style="list-style-type: none"> <li>a. Daily production details (ER-1 Central Excise Returns).</li> <li>b. Quantity of Effluents generated, treated, recycled/ reused and disposed.</li> <li>c. Log Books for pollution control systems.</li> <li>d. Characteristics of ambient air, effluents and emissions.</li> <li>e. Hazardous/non-hazardous solid waste generated and disposed.</li> <li>f. Inspection book.</li> <li>g. Manifest copies of hazardous waste.</li> </ul>	<p><b>Complying.</b></p> <p>All such applicable records are being maintained.</p>

Sr. No.	Condition mentioned in CFO Order	Compliance												
21	<p>The industry shall dispose solid waste (NON HAZARDOUS) as follows</p> <table border="1" data-bbox="276 496 716 938"> <thead> <tr> <th data-bbox="276 496 346 585">S. N. o.</th><th data-bbox="346 496 446 585">Name of the Solid Waste</th><th data-bbox="446 496 562 585">Quantity</th><th data-bbox="562 496 716 585">Disposal</th></tr> </thead> <tbody> <tr> <td data-bbox="276 585 346 713">1</td><td data-bbox="346 585 446 713">Fly Ash</td><td data-bbox="446 585 562 713">0.96 Million Tons/ Annum</td><td data-bbox="562 585 716 713">To Cement / brick units</td></tr> <tr> <td data-bbox="276 713 346 938">2</td><td data-bbox="346 713 446 938">Bottom Ash</td><td data-bbox="446 713 562 938">0.24 Million Tons/ Annum</td><td data-bbox="562 713 716 938">To cement, brick manufacturing units. Unutilized bottom ash to ash pond in slurry mode</td></tr> </tbody> </table>	S. N. o.	Name of the Solid Waste	Quantity	Disposal	1	Fly Ash	0.96 Million Tons/ Annum	To Cement / brick units	2	Bottom Ash	0.24 Million Tons/ Annum	To cement, brick manufacturing units. Unutilized bottom ash to ash pond in slurry mode	<p><b>Complied.</b></p> <p>Fly ash is collected in dry form and stored in silos of 3x2000 cum capacity for disposal to various users.</p>  <ul data-bbox="743 848 1521 990" style="list-style-type: none"> <li>• SEIL has achieved 100% fly ash utilization by June 2018.</li> <li>• Efforts are on to sustain this 100% utilisation of fly ash.</li> <li>• As the Bottom ash is mixed with seawater, it is being pumped to ash pond in lean slurry form.</li> </ul> <p>SEIL making all out efforts for 100% utilisation of fly ash. SEIL has exported 5000 MT of fly ash to UAE. SEIL is in talks with cement manufacturer of Australia for exporting fly ash.</p> <p>SEIL has installed fly ash classification unit of 5 Lakh Tonne per annum within the site for facilitating exports.</p> <p>According to the Office Memorandum of MoEF&amp;CC dated 28<sup>th</sup> Aug 2019, EC conditions of thermal power plants are suitably amended to allow the usage of fly ash for low lying area filing. SEIL is taking required steps.</p>
S. N. o.	Name of the Solid Waste	Quantity	Disposal											
1	Fly Ash	0.96 Million Tons/ Annum	To Cement / brick units											
2	Bottom Ash	0.24 Million Tons/ Annum	To cement, brick manufacturing units. Unutilized bottom ash to ash pond in slurry mode											
22	The industry shall relocate the CAAQM station provided at sea intake point to suitable location in consultation with RO: Nellore.	<p><b>Complied.</b></p> <p>SEIL has provided 3 nos of Continuous AAQM stations to cover both upwind and downwind directions for all seasons.</p>												

Sr. No.	Condition mentioned in CFO Order	Compliance
23	<p>The industry shall operate CAAQM stations for monitoring SPM, SO<sub>2</sub>, and NO<sub>x</sub> with recording facility and maintain connectivity to PCB server.</p>	<p><b>Complying.</b></p> <p>The air quality of the plant area and surroundings is continuously monitored using 3 nos of Continuous Air Quality Monitoring Stations. The real-time data is being uploaded to PCB server.</p> 
24	<p>The industry shall install online effluent and stack monitoring systems for specified parameters as per CPCB directions dated 05.02.2014 &amp; 02.03.2015 and maintain connectivity to APPCB/CPCB websites.</p>	<p>SEIL has provided online stack &amp; effluent monitoring system and is connected with CPCB website.</p> 

Sr. No.	Condition mentioned in CFO Order	Compliance
25	The industry shall carryout regular calibration for the on-line stack monitoring systems and CAAQM stations with tamper proof mechanism.	<p><b>Complying.</b> Regular calibration of the system is being done. Also the CEMS system is provided with online Remote Calibration facility.</p>
26	The industry shall dispose 100% of fly ash generated as per the Fly ash Notification.	<p><b>Complying</b></p> <p>MoUs are signed with brick manufacturers, traders and cement plants for ash utilisation.</p> <p>SEIL has reached 100% fly ash utilization by June 2018. SEIL is making all out efforts to sustain 100% utilisation of fly ash. SEIL has exported 5000 MT of fly ash to UAE. SEIL is in talks with cement manufacturer of Australia for exporting fly ash.</p> <p>SEIL has installed fly ash classification unit of 5 Lakh Tonne per annum within the site for facilitating exports.</p> <p>According to MoEF&amp;CC letter 11/3/2018-HSMD dated 23<sup>rd</sup> July 2019, it was mentioned that thermal power plants, who have achieved less than 85% of fly ash utilisation will be given two years' time period to achieve 100% fly ash utilisation (ie. Upto July 2021). We will be meeting the norms.</p>
27	The industry shall develop the thick green belt in an area of 395 acres covering all along the periphery of the industry, coal stack yard and ash pond area.	<p><b>Complying.</b></p>
28	The industry shall submit a copy of policy of Public Liability Insurance (PLI) duly indicating the amount contributed towards Environmental Relief Fund (ERF) to the RO once in six months.	<p><b>Complying.</b></p> <p>The renewal copies of PLI are submitted to APPCB Regional office on regular basis.</p>
29	The industry shall comply with Board directions issued from time to time.	Noted.
30	The industry shall comply with standards and directions issued by CPCB / MoEF & CC as and when notifications are issued.	Noted.

Sr. No.	Condition mentioned in CFO Order	Compliance
31	The industry shall submit compliance report on the conditions mentioned in the consent order every six months i.e., on 1 <sup>st</sup> of January and July of every year to the Regional Office/ Zonal Office.	Noted and being complied.