WHEREAS, M/s. Medicare Environmental Management Pvt. Ltd., (hereinafter referred to as the unit) located at 41, F Road, Belgachhia, P.S.- Liluah, Dist.- Howrah, Pin 711 105 is a Common Biomedical Waste Treatment Facility.

AND WHEREAS, the unit was inspected by the official of the West Bengal Pollution Control Board (hereinafter referred to as the Board) on 30/11/2017. As on date the facility has 1765 members (682 are bedded units and the rest are non-bedded units). As per available records, the BMW collected by the facility on the previous day i.e. 29th November, 2017 was 9418.72 kgs. from 581 member units. Of this quantity, incinerable waste quantity was 4664 kgs and autoclavable waste was 4754 kgs. The average BMW receipt is about 10 TPD. The unit has no separate storage shed for untreated BMW. The waste received is stored in the incinerator and autoclave sheds. BMW collected in November 2017 is as follows:

<table>
<thead>
<tr>
<th>Yellow (kgs)</th>
<th>Blue (kgs)</th>
<th>Red (kgs)</th>
<th>White (kgs)</th>
<th>Other (kgs)</th>
<th>Total (kgs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>142463.8</td>
<td>13177.5</td>
<td>146582.68</td>
<td>8860.27</td>
<td>54</td>
<td>311138.26</td>
</tr>
</tbody>
</table>

AND WHEREAS, the facility has 27 vehicles for BMW collection and all are fitted with GPS devices. The vehicles are marked with the bio-hazard symbol and the name, address and contact details of the facility are prominently displayed. A mobile software is used to record real time BMW collection records. Bar coding of waste collection bags has been started but all member units are yet to be covered. Colour coded and labeled (marked) bags are provided to the member units as prescribed in the rules.

AND WHEREAS, the unit is unable to treat the entire waste collected and regularly sends the excess BMW for treatment to the Haldia facility of West Bengal Waste Management Ltd., a sister concern. Total BMW transferred to Haldia in November, 2017 is 98.58 tonnes.

AND WHEREAS, the unit has two incinerators: an old incinerator installed in 2003 and a new one installed in 2012. As per CFE issued by the Board, the old incinerator is to be used only as a stand-by. The capacity of the new incinerator is 250 kg/hr and that of the old incinerator has been restricted to 150 kg/hr by the Board vide direction dt. 09/07/2009. During inspection, both the incinerators appeared to be in operation as flames were visible through the doors. The temperatures of the primary and secondary chambers of the old incinerator were 652˚C and 490˚C and that of the new incinerator were 161˚C and 366˚C. The temperature of the new incinerator suggested that the incinerator had stopped operating just before the inspection. After sometime, when the flames died, the door was opened and smoldering semi-burnt waste was seen. The representatives of the unit explained that the ID fan casing of the incinerator had been changed and the incinerator was being run on trial. However, no intimation regarding breakdown of the incinerator has been given to the WBPCB. The operation of BMW incinerator at low temperature is a violation of BMW Rules. Heavy fugitive emission was seen from the duct line connecting the new incinerator to the chimney and from the ID fan attached to the old incinerator. Liquid carried over with the emission was seen dripping from all the flanges in the ductline from the new incinerator to the chimney. Heavy white emission was also seen from the chimney.

AND WHEREAS, there was no arrangement for weighing of waste fed to the incinerator and hence no log book for recording the incinerator feed. Only a sheet showing start time, duration of operation and maximum primary and secondary chamber temperatures and a printed chart showing temperature
variation are maintained. The incinerators are yet to be upgraded to increase the residence time in the secondary chamber and to meet the new emission standards. As per provision of the Rules, the unit is required to ensure such compliance within March, 2018. The unit has violated the Board’s Consent-to-Establish condition by operating both the incinerators.

AND WHEREAS, there is one autoclave of capacity 430 litre/batch. There is no system for recording the weight of BMW fed to the autoclave. There are pressure gauges and also digital display for recording the autoclave pressure and temperature. The pressure and temperature recordings are also printed continuously during the cycle. Indicator strips are used for ensuring disinfection. Indicator strips are kept as record of autoclaving. Spore tests are done to ensure adequate performance of autoclave and record is maintained. During the inspection, the autoclave was in operation and the temperature and pressure monitors and recorder (printer) were in working condition. As per the printout, the sterilization cycle started at 122˚C and 0.452 bar. As prescribed in the rules, the minimum conditions required for sterilization are 15 psi (1.034 bar) pressure and 121˚C. There is one shredder (60 kg/hr) and one bottle crusher (80 kg/hr). These were not in operation during the inspection. Autoclaved and shredded waste is sent to plastic recyclers but records could not be produced.

AND WHEREAS, the two incinerators have two wet scrubbers each (one venturi-scrubber). The new incinerator also has a quencher and mist eliminator. The scrubbing liquid is treated in an Effluent Treatment Plant (ETP) and recycled. The ETP consists of chemical treatment with alum, polyelectrolyte and sodium hydroxide followed by aeration and two-stage filtration through sand and activated carbon. ETP sludge and exhausted filter media are disposed to the CHWTSDF along with incinerator ash. Separate energy meter has been provided for the ETP.

AND WHEREAS, during inspection all pollution control systems including ETP were in operation. However, fugitive emission was seen from various points and thick white emission was seen from the chimney. Effluent sample was collected during inspection on 17/01/2017 and 30/11/2017 which shows non-compliance. This effluent is recycled in the scrubber and therefore affects the scrubbing efficiency. Results are as follows:

<table>
<thead>
<tr>
<th>Date of sampling</th>
<th>Parameters</th>
<th>Results obtained</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>30/11/2017</td>
<td>BOD</td>
<td>177.92 mg/l</td>
<td>30 mg/l</td>
</tr>
<tr>
<td></td>
<td>COD</td>
<td>405.65 mg/l</td>
<td>250 mg/l</td>
</tr>
<tr>
<td></td>
<td>TSS</td>
<td>270.0 mg/l</td>
<td>100 mg/l</td>
</tr>
<tr>
<td></td>
<td>pH</td>
<td>10.0</td>
<td>5.5-9.0</td>
</tr>
<tr>
<td>17/01/2017</td>
<td>BOD</td>
<td>175.0 mg/l</td>
<td>30 mg/l</td>
</tr>
<tr>
<td></td>
<td>COD</td>
<td>863.0 mg/l</td>
<td>250 mg/l</td>
</tr>
<tr>
<td></td>
<td>TSS</td>
<td>260.0 mg/l</td>
<td>100 mg/l</td>
</tr>
</tbody>
</table>

Continuous Emission Monitoring System has been installed but is not in operating condition. Stack sampling is done quarterly and reports are submitted to the Board. Stack sampling reports show compliance with standards specified in the old 1998 rules but not with the new 2016 rules. Equipment upgradation is required to ensure compliance with the new standards within March 2018.

AND WHEREAS, BMW Authorisation was valid upto 30/11/2017, the unit has applied for renewal. Consent to Operate is valid upto 30/11/2018. Annual Report for 2016 has been submitted. Environmental Statement for 2016-17 has not been submitted.

Earlier a bank guarantee of Rs. 5 lakh was imposed on the unit vide order dated 19/03/2014, out of which Rs.2 lakh was forfeited by the Board vide order dated 11/05/2015.

AND WHEREAS, the unit was called for a technical hearing on 16/01/2018 at the Head Office of the Board for violation of environmental norms as recorded above. The representative of the unit appeared in the hearing and submitted the following:

1. The unit will complete upgradation/modification of new incinerator and effluent treatment plant by 31st March, 2018.
2. The unit will submit training schedule of the member units in advance on quarterly basis at WMC, WBPCB.
3. The unit will implement Bar Coding system for all the member units and submit list of non-willing health care units by 31st March, 2018.
4. The unit will submit Environmental Statement for 2016-17 at an early date.
5. The unit will extend the existing Bank Guarantee for further one year.

NOW THEREFORE, considering the submission of the unit, M/s. Medicare Environmental Management Pvt. Ltd., 41, F Road, Belgachhia, P.S.- Liluah, Dist.- Howrah, Pin 711 105 is hereby directed as follows:

1. That the unit shall complete total upgradation/modification of the incinerators within 31st March, 2018 to ensure compliance with the secondary chamber residence time and emission standards prescribed in the BMW Rules 2016.
2. That the effluent treatment plant shall be upgraded within 31st March, 2018 to meet the effluent discharge standard.
3. That the unit shall not operate both the incinerators simultaneously. The unit shall inform the Board in case of breakdown of the new incinerator and use of the stand-by old incinerator.
4. That the unit shall not operate the incinerators below the minimum prescribed temperatures under any circumstance.
5. That the unit shall take up maintenance of equipment and ducts immediately to stop fugitive emission.
6. That the unit shall ensure operation of the online emission monitoring system and real time data transmission to the server.
7. That the unit shall install automatic weight recording system for keeping record of incinerator and autoclave feed.
8. That the unit shall maintain a log book for each treatment equipment for recording the weight of batch, categories of waste treated, time, date and duration of treatment cycle and total hours of operation.
9. That the unit shall maintain minimum temperature, pressure and duration of autoclaving as prescribed in the rules.
10. That the unit shall conduct spore testing of autoclave using the prescribed biological indicator at maximum design capacity at least once in every week.
11. That the unit shall send autoclaved and shredded waste only to recyclers having requisite pollution control clearances.
12. That the unit shall submit the training schedule of the member units in advance on quarterly basis at W.M.Cell, WBPCB.
13. That the unit shall implement Bar Coding system for all the member units by 31st March, 2018.
14. That the unit shall submit Environmental Statement for 2016-17 immediately.
15. That the unit shall submit a fresh Bank Guarantee (proforma enclosed) of Rs.5,00,000/- (Rupees Five lakh) only, valid for twelve [12] months within fifteen [15] days from the date of issuance of this order in favour of the WEST BENGAL POLLUTION CONTROL BOARD (Corporation Bank IFSC Code CORP 0000663) as an assurance to comply with the above directions.

This direction is issued in exercise of the powers conferred under the provision of Section 33A of Water (Prevention & Control of Pollution) Act, 1974, Section 31A of Air (Prevention & Control of Pollution) Act 1981 and the Environment (Protection) Act, 1986 and especially the Bio-Medical Waste (Management & Handling) Rules 2016.

This order has the approval of the Competent Authority.

By Order,

Sd/-
Sr. Environmental Engineer & In-Charge
Operation & Execution Cell
West Bengal Pollution Control Board