

Annex F

## Investigation Report

**Investigation Report of CEMS Exceedances**

Date	1 – 31 March 2022
Time	Continuous monitoring throughout March 2022
Monitoring Location	Continuous Environmental Monitoring System (CEMS)
Parameter	Various emission parameters of the Cogeneration Units (CHP) and the Ammonia Stripping Plant (ASP)
Exceedance Description	<p>1. Continuous monitoring was carried out at the CAPCS, CHP and ASP throughout the reporting period using the CEMS. According to the EM&amp;A Manual, exceedance is considered if the emission concentration of the concerned pollutants is higher than the emission limits stated in Tables 2.2, 2.3 and 2.5 of the EM&amp;A Manual (Version F) for CAPCS, CHP and ASP respectively. The concentration of the concerned air pollutants were monitored on-line by the CEMS. Exceedances of various emission parameters were recorded on the CEMS including:</p> <ul style="list-style-type: none"> <li>• SO<sub>2</sub> in CHP 1</li> <li>• CO, NO<sub>x</sub>, VOCs and NH<sub>3</sub> in the ASP</li> </ul> <p>2. The Contractor has investigated the cause of the exceedance and identified that</p> <ul style="list-style-type: none"> <li>• The exceedances of SO<sub>2</sub> from CHP 1 occurred due to tripping of a blower in the de-sulphurisation system.</li> <li>• The exceedances from ASP occurred due to system instability caused by leakage of tubing within the economiser of the ASP.</li> </ul>
Action Taken / Action to be Taken	The Contractor arranged immediate maintenance work after the malfunctioning of internal instruments of the de-sulphurisation system and the ASP were identified.
Remedial Works and Follow-up Actions	<p>The ASP is under optimisation by the Contractor.</p> <p>The Contractor is recommended to closely monitor the processes, including the modification works and follow-up emission monitoring of the ASP to avoid exceedance.</p> <p>The Contractor should review the routine inspection and maintenance schedule of the ASP and conduct preventative maintenance to avoid similar re-occurrence of the equipment failure.</p>

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Date: 15 April 2022