

Annex F

## Investigation Report

**Investigation Report of CEMS Exceedances**

Date	1 - 30 September 2023
Time	Continuous monitoring throughout September 2023
Monitoring Location	Continuous Environmental Monitoring System (CEMS)
Parameter	Various emission parameters of Cogeneration Units (CHPs) and 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, CHPs and ASP respectively. The concentrations 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>• NO<sub>x</sub> and SO<sub>2</sub> from CHP1;</li> <li>• NO<sub>x</sub>, SO<sub>2</sub>, and HCl from CHP2;</li> <li>• NO<sub>x</sub> and SO<sub>2</sub> from CHP3; and</li> <li>• NO<sub>x</sub>, SO<sub>2</sub>, NH<sub>3</sub>, and HCl from 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 NO<sub>x</sub>, SO<sub>2</sub>, and HCl from the CHPs, as well as the exceedances of NO<sub>x</sub>, SO<sub>2</sub>, NH<sub>3</sub>, and HCl from ASP occurred due to system instability.</li> </ul>
Action Taken / Action to be Taken	The Contractor investigated the reason for the exceedances and arranged Remedial Works and Follow-up Actions (see below).
Remedial Works and Follow-up Actions	<ul style="list-style-type: none"> <li>• The Contractor had arranged the CHP supplier to inspect, analyse and improve CHP performance in September 2023 based on final reports of the quality assurance level 2 test (QAL) for the CEMS calibration. This QAL2 evaluation is still ongoing, and improvement recommendation will be provided once the final report is received.</li> <li>• The Contractor has also arranged cleaning of the ASP in October 2023 to restore the treatment efficiency of the ASP.</li> </ul>

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