

Annex G

## Investigation Report

**Investigation Report of CEMS Exceedances**

Date	1 - 31 December 2020
Time	Continuous monitoring throughout December 2020
Monitoring Location	Continuous Environmental Monitoring System (CEMS)
Parameter	Various emission parameters of the Cogeneration Unit (CHP) and Ammonia Stripping Plan (ASP)
Exceedance Description	<ol style="list-style-type: none"> <li>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:           <ul style="list-style-type: none"> <li>• NO<sub>x</sub> in the CHP</li> <li>• NO<sub>x</sub>, VOC (including methane) and NH<sub>3</sub> in the ASP.</li> </ul> </li> <li>2. According to the Contractor, the plant was receiving around 100 tonnes of SSOW daily and was operated normally.</li> <li>3. The Contractor explained that exceedances recorded in the CHP was due to the low biogas loading which results in the poor performance efficiency in CHP. Exceedances in ASP was caused by unstable column temperature in biogas combustion.</li> </ol>
Action Taken / Action to be Taken	<ul style="list-style-type: none"> <li>• The supplier of the CHP has conducted an on-site investigation and checking during this reporting period. The Contractor is negotiating a routine maintenance contract with the CHP supplier to allow the CHP supplier to rectify any exceedances. The Contractor is in the process of finding better and more feedstock for the system in order to increase biogas loading.</li> <li>• Improvement has been observed in ASP emission performance. A local site engineer was arranged to find tune and test the ASP three days a week during this reporting period. It was arranged with the supplier of ASP to check the performance of the stacks onsite. However the supplier could not travel to Hong Kong during this reporting period due to restrictive travel arrangement. Communication with supplier was maintained and fine-tuning of equipment was performed according to supplier's instructions. The Contractor is in the process to arrange for remote fine-tuning of the ASP with the overseas contractor. The</li> </ul>

	Contractor continues to carry out maintenance measures as per the supplier's manual. The Contractor has started to establish a regular communication channel with the ASP supplier, to overcome the fact that the supplier cannot travel to Hong Kong due to travel restriction.
Remedial Works and Follow-up Actions	The Contractor is recommended to closely monitor the processes, including the modification work and follow-up emission monitoring of the CHP and ASP to avoid exceedance. MT has advised that the issue of emission exceedances should be prioritised in up-coming meetings. MT will carry out follow-up audit regarding the progress next month.

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Date 11 January 2021