

Annex J

Investigation Report

Investigation Report of CEMS Exceedances

Date	1 – 30 September 2019
Time	Continuous monitoring throughout July 2019
Monitoring Location	Continuous Environmental Monitoring System (CEMS)
Parameter	Various emission parameters of the Cogeneration Units (CHP) and Ammonia Stripping Plan (ASP)
Exceedance Description	<ol style="list-style-type: none"> 1. Continuous monitoring was carried out for CAPCS, CHP and ASP throughout the reporting period using the CEMS. According to the EM&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&A Manual (Version E) 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"> • SO₂ in the CHP; and • NO_x, SO₂, VOCs (including methane) and NH₃ in the ASP. 2. According to the Contractor, the plant was receiving around 100 tonnes of SSOW daily and was operated normally. 3. Tripping of the desulphurisation column resulting in the incomplete desulphurisation of biogas that leads to the exceedances of SO₂ limits for CHP stacks and ASP stack. 4. The Contractor explained that the exceedances recorded in the ASP was because the thermal combustion unit of the ASP still require tuning to optimise the combustion efficiency.
Action Taken / Action to be Taken	<ul style="list-style-type: none"> • Routine maintenance of the desulphurisation column, e.g. cleaning of sensors, has been carried out. Continuous monitoring of the desulphurisation column will remain in place to reduce the duration of tripping which causes exceedances in SO₂ in CHP stacks and ASP stack. It was arranged with the supplier of the ASP to modify the system onsite. • The supplier suggested that main components required for the modification work, i.e. an air cooler, will be delivered to Hong Kong by early October 2019. Meanwhile, the supplier will perform some minor modification work, such as the replacement of control valves in the next reporting period. The Contractor is developing a detailed schedule with the supplier to ensure preparatory works are completed for the major modification work to take place. The operation team of the Contractor will also liaise and agree with the

	supplier for any shutdown period required to replace and install the equipment.
Remedial Works and Follow-up Actions	The Contractor is recommended to closely monitor the processes, including the combustion of biogas in the ASP to avoid the reoccurrence of similar problems. MT will carry out follow-up audit regarding the progress next month.

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Date: 10 October 2019