

無機廢水總餘氯去除技術研究

Research on Total Residual Chlorine Removal Technology from Inorganic Wastewater

傅弼豐*、曹志明、吳俊賢、張茱琪

台灣電力股份有限公司 u281752@taipower.com.tw

摘要

This project will conduct total residual chlorine removal tests on four different methods, find out the test parameters of each method, and evaluate which method is most suitable for real-field amplification operations to avoid the possibility of exceeding the standard.

Aeration treatment has been proven to be insignificant in reducing residual chlorine, so it is not suitable as an on-site treatment solution for residual chlorine removal. The hydraulic retention time of activated carbon treatment is expected to take more than 40 minutes, and the treatment is limited to the activated carbon reaction tank, which will require a huge activated carbon tank. Since there is large-scale activated carbon equipment on site but residual chlorine is still detected, and the treatment effect cannot be seen in the residual chlorine flow pattern, the effectiveness and certainty of using activated carbon as a treatment is not high.

Finally, after testing, it was found that activated carbon, Hypo and commercially available chlorine removal agents can all reduce residual chlorine, but the effect of activated carbon on residual chlorine is not obvious and unstable. At the same time, there is already activated carbon equipment on site, so the availability is low. Hypo requires only a low dosage to reduce the total residual chlorine value, but it takes about 3 hours to react. Commercially available chlorine removal agents require a higher dosage, but the reaction time is shorter than that of Hypo. It can effectively reduce the total residual chlorine value in about 1 hour. Considering the feasibility and economy of the site conditions, it is recommended to use Hypo as a daily treatment procedure. Commercially available chlorine removers can be used as an emergency response plan.

Keyword : Total chlorine 、Wastewater ◦



圖 1、燒杯試驗



圖 2、管柱測試