CASE STUDY

PROJECT	CHLORINATION SYSTEM UPGRADE
PRODUCT	Sodium Hypochlorite Disinfection Recirculated (SHDR)
INDUSTRY	Infrastructure
LOCATION	Geraldton, Western Australia

mak water
water | wastewater | sewage

BACKGROUND

A corrective service centre located near Geraldton in WA approached MAK Water to review the operations of their Waste Water Treatment Plant (WWTP).

The current treatment process was not achieving the required standards set by the Department of Environment for its treated effluent, and therefore MAK Water's objective was to provide a long term solution that would not only improve water quality but reduce ongoing operation costs and promote operator safety.

MAK Water was able to diagnose two main reasons the current system was failing, firstly inadequate contact time for the disinfectant to affectively work and the monitoring ability of the system to comply with DOH requirements. As the client did not want to have chlorine gas on site a sodium hypochlorite disinfection system was selected.

SOLUTION

MAK Water has designed and constructed a number of waste water plants and understands the importance of selecting the right post-disinfection system for the application. Based on our years of experience in the waste water industry, MAK Water recommended the installation of a SHDR system, to allow for continuous monitoring and disinfection of the final effluent prior to discharge on site.

MAK Water installation of a SHDR system

SHDR

- The system has two primary processes firstly continuous monitoring for chlorine levels Chemical and secondly PID controlled dosing of MAK NACL to maintain an adequate chlorine level in the effluent holding tanks.
- The system was designed for the total volume of the final effluent holding tanks to be turned over six (6) times a day to ensure adequate contact time and disinfection.
- The system utilises liquid chlorine thus removing the risks associated with gas chlorine.

High quality designed equipment with small footprint

RESULTS AND BENEFITS

- **Plant Reliability**: The high quality designed equipment, allows minimal maintenance saving both time and money.
- **Compliance with DER Requirements**: The system continually monitors the chlorine levels in the final effluent tanks ensuring adequate disinfection prior to discharge to the environment.
- **Safety**: Replacing the highly dangerous gas chorine system with liquid significantly reduces operator risk.