

## Incorrect Valves used on Chlorine (CL2) Injection Lines

### Summary

Following a report of a fault on a Chlorine Dosing System at Tullyhappy SR a work crew attended to complete a repair. The work required the crew to first isolate the Gas Injection point into the water line, as part of the safe isolation process. It was not possible to complete this task the associated valves had seized (failed to turn) and, in one case, when pressure was applied the handle sheared and broke off.

### Investigation

It was discovered that inappropriate valves had been fitted on the chlorine installation. These were found to be standard water valves, and not chlorine gas rated. The valves had been fitted as part of a Base Maintenance upgrade programme.

Photo 1: Water Valves - that had been fitted.



Photo 2: Gas Valve - that should have been fitted.



### Key Actions & Recommendations

1. All valves and ancillary equipment used within any Chlorine (Cl<sub>2</sub>) Gas Installation must be of suitable design and appropriately rated.
2. Staff and contractors should be informed of this incident and made suitably aware of risks and requirements when working with such equipment or installations.
3. Only suitably trained competent staff should work on such installations.
4. Potential for incident read across should be assessed, and tested where appropriate. Recent sites that have been subject to similar upgrades and should be investigated to ensure that appropriate rated valves and ancillary equipment has been used.

Incident Date: 09-02-17	NIW Safety Alert: SA12	Issue Date: 27-06-17
Datix Number	NIW2381	
Target Audience: All NI Water Field Operations Staff & Managers, Asset Delivery, & Contractors		
Prepared by:	M&E Services supported by the SHE Team	
Approved by:	Head of Safety	