

## Galway County Council Rural Water Chlorination Control Project

Equipment Supply, Installation  
& Commissioning Contract  
Completed 2006



### Challenge

Galway County Council invited tenders for the supply, installation and commissioning of residual chlorine measurement equipment with an interlinked dial-out alarm system on each of 27 No. rural water treatment works and pumping stations. The Council provided a listing of the sites which included details of the chlorination system in use (gas or sodium hypochlorite), pH of the water and information on the availability of a GSM signal at the site. The locations where equipment was to be installed were;

### Client

Galway County Council, Galway

### Clients Representative

Senior Engineer Galway County Council

### Value

Capital Works €160,000

### Project Involvement

Supply Installation & Commissioning Contractor

- Ballymoe
- Carraroe
- Cleggan
- Clifden
- Cornamona
- Derryinver
- Dunmore
- Glenamaddy
- Gort
- Inishboffin
- Inisheer
- Inishmore
- Kilconnell
- Kinvara
- Leenane
- Letterfrack
- Loughrea 1
- Loughrea 2
- Mid-Galway
- Portumna
- Roundstone
- Rosmuc
- Spiddal
- Lettermore
- Tuam
- Tully
- Williamstown

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Six sites had existing dial-out alarms utilising either land lines or GSM. Three sites, Clifden, Dunmore and Tuam had poor GSM coverage and required a satellite based communication system. A back-up battery power supply was required at Letterfrack and four sites without water storage required automatic changeover systems for the chlorine dosing pumps.

### Answer

Response CSL provided Hach 9184sc Amperometric TFC/PH free chlorine residual analysers to all sites to monitor high and low levels of chlorine residual and in the case of low levels ability to turn off water pumps or close control valves to prevent unchlorinated water entering supply. Alarm texts will be sent to designated personnel on low or high alarm condition by means of MJK GSM modems for 28 sites and by means of Andronics Utility-Eye satellite communication in the case of 3 other sites. The units provided measure pH and temperature to enable assessment of total free chlorine. The equipment provided has a fast response time, is not susceptible to interference by chloramines and complies with the following specification;

- Protection class: IP65 for transmitter
- Temperature Range: 0 to 45 degrees C
- Temperature Compensation: Automatic 0 to 45 degrees C
- Power Supply: 285 VAC
- Measuring Range: 0 to 5 mg/l free chlorine
- Response Time: Less than 90 secs.

### Drinking Water Standard

Water entering supply must comply with the European Communities (Drinking Water) (No2) regulations 2007 as defined in Irish SI No 278 of 2007