



Technical Inspection of Mains Rehabilitation

Operations Activity on Distribution System

Location: **Elsrickle, S.Lanarks 23/7/2021 Matt Bower**

Quality of Water

- Is work being undertaken in a way that avoids a deterioration in water quality?
- Are approved products and processes being used?
- Is this evidenced by clear sample results / chlorine residuals / visual appearance?

Job extremely well managed and planned, with all staff well aware of hygiene requirements. All pipes and fittings seen approved for water use.

Asset Robustness

- Is work being undertaken by SW employees or Contractor?
- Any issues / risks with work site? Have these been mitigated adequately?
- Does the main have adequate points to enable flushing and disinfection to take place?
- Is the depth of excavation appropriate?
- Is adequate de-watering equipment available and used?
- Is all equipment appropriate to the task?
- Are staffing levels adequate? **(check training and blue cards)**
- Is the method of repair appropriate to the situation?
- Are hygiene standards in van acceptable? (tidy / storage of fuel / clothing / handwashing / fittings bagged / pipe off floor)
- Are equipment and fittings being stored correctly on site?
- Is there an off-site storage area? Is it appropriately located? Any risks? Tidy? Fittings & chemicals stored correctly?

Work undertaken by Caledonian Alliance contractor (R4) . Supervised by Scottish Water alliance (paul reid) . Scheme to replace AC with MDPE - mostly open cut, some pipebursting. Work had started, with open cut section laid from pumps, but not quite reached village. Excavation very neat and main suitably terminated. 2 man squad, appropriate to job. All had in date DOMS and Hygiene cards. Contractor van was tidy with fittings on shelves and generator banded. Handwashing tank was empty, although hand sanitiser and wipes were available (and no pipes were actually being laid that day) Customer care van tidy - carried correctly made up spray plus instachlor 1000 tablets. Reviewed chlorine monitor - Palintest "Chip" type - clean and recently calibrated , with dated sticker. spray bottle would benefit from label stating 1000mg/l Cl . Site Depot - This was exemplary, clearly demarcated area on hardcore with Heras fencing in agricultural yard. All pipe coils and sticks tidily stored off ground on pallets and capped. New fittings neatly stored on shelves in container, mostly bagged. fuel stored separately , well away from fittings and banded.

Operational Practices

- Effort being made to keep tools and equipment clean?
- Chlorous spray available, made up correctly (1000mg/l or 250mg/l) and used?
- Is suitable (calibrated) equipment available and used to measure chlorine?
- Is main repaired under pressure? (should aim for this if at all possible)
- Is the depth of excavation appropriate?
- Is adequate de-watering equipment available and used?
- Is all equipment appropriate to the task?
- Effort made to keep dirty water out of pipe?
- End caps (or other protection) used on pipe ends
- Has appropriate disinfection taken place? (Check Cl and time being measured and recorded, flushed appropriately)
- Has flushing taken place to remove any air?
- Are burst repair samples taken as appropriate? (DOMS)
- Is sampling undertaken appropriately? (correct bottles, locations, training)

No activity witnessed, other than digging, but squad were well organised and supervised and I have every confidence that work is to an extremely high standard.

Management of Risk

- Has a risk assessment been done and is it available on site?
- Is it clear who may operate valves and which valves are to be operated?
- Are staff aware of risks to water quality and their role in managing these? (DOMS & Hygiene, valve operation, Flushing)
- Is the choice of method appropriate to the risks involved?
- Are measures taken to protect consumers (eg from drinking from depressurised main or high chlorine concentrations)
- Are boil notices used and issued appropriately?
- Who reviews sample data from mains repairs?

Risk assessment reviewed, both generic one and more specific RA / method statement & diagrams for contractor. These were comprehensive - Customer Care rep (Alan) was exceptionally diligent and had produced detailed diagrams showing depth of each connection. Efforts being made to engage with customers and identify all services prior to transfer.

Recording Information

- Are DOMS procedures available to site staff?
- What work detail/customer information is available to squad/NSO in work pack?
- Are on-site water quality checks (Cl, T&O, pH) being recorded and stored appropriately?
- Are disinfection residuals and times recorded?
- Is sample paperwork in order? (ensure sample locations are clearly documented)

If Carella used, has it been authorised by Scottish Water and are appropriate measurements being made?

Is information on mains material recorded and checked against GIS?

Information recording on this job was exceptionally good, with clear, detailed records kept. Minimal sampling so far as job just started.

General Comments

This was a very well organised and managed job throughout, with the whole team working well together to a highly professional standard.