TECHNICAL BULLETIN SEW-16-01

Use of Plugs during Sewer construction

Due to a number of recent incidents where mechanical plugs have been found in sewer pipelines after Acceptance of Works has been issued, South East Water (SEW) has introduced a number of mandatory requirements and recommended procedures for all plugs insertions in sewers.

Current Mandatory Requirements
- When using plugs in live sewers, a Form Q noting the plug insertion must be lodged through the SWIFT system.
- Once the Form Q is approved, a Live Sewer Contractor must request an Asset Entry Number from the SEW Network Control Centre.
- When plug insertion is completed, the SEW Network Control Centre must be contacted to close the Asset Entry Number.
- The Form Q must also be completed through the SWIFT system by entering the Asset Entry Number used to carry out the works.
- When the plug is being removed another Form Q must be lodged and the same steps followed to complete the work as above.

New Mandatory Requirements
- All plugs shall be permanently identified with the Contractors name.
- All plugs must be appropriately secured and tethered which may include being tied off to top step iron or ladder in nearest manhole and U/S plugs being tommed off.

Recommended Procedures
- When plugs are inserted in sewers (whether it is live or not), the plug should be temporarily tagged with SEW Project Number and individual plug identification.
- A register of plugs inserted should be maintained on site in the project folder with the following information:
  - Plug ID
  - SEW Project Number
  - Project Name
  - Location of plug insertion (eg. MH HBM22-26 D/S)
  - Date of insertion
  - Time of insertion
  - Accredited Key Personnel supervising insertion
  - Date of removal
  - Time of removal
  - Accredited Key Personnel supervising removal

Please note mechanical or inflatable plugs should not be used to isolate sewers for periods greater than 48 hours, therefore it is mandatory for a U-plate to be installed for the purposes of eduction.

South East Water auditors will be reviewing these requirements as part of their site audits from 1 September 2016.
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Manual Handling during Maintenance Hole construction

Following a serious incident where a section of formwork fell from heights onto a worker whilst stripping a concrete maintenance hole, the continued use open hooks and unrated ropes and straps is considered unacceptable.

It is important that the safe lifting principles applied for both mechanical lifting by crane or excavator hitch also be applied for manual lifting as the consequences of failure could be catastrophic and result in serious injury or death.

Only appropriately rated lifting components including straps or ropes with spliced loops and self-locking hooks should be used when lifting any loads overhead.

South East Water auditors will continue reviewing the methodology and equipment used for manual lifting in maintenance hole construction over the coming months.

Figure 1 – Formwork used for Maintenance hole construction

Figure 2 – Inappropriate hooks used for lifting

Figure 3 – Tie down straps should not be used for manual lifting