Local Practice for Sewerage Pumping Stations

Sewerage Sector Guidance allows Anglian Water to introduce a Local Practice in certain permitted areas where our operational requirements are not adequately covered in the Design Construction Guidance.

Our Local Practice for Sewerage Pumping Stations is below, **which was revised on 27 October 2026** and subject to a three month consultation period as required by the Code. This Local Practice is considered necessary for Anglian Water to comply with its own geographical and health and safety requirements, whilst meeting the principles of the Code.

The references shown below refer to the relevant sections of Design Construction Guidance (SSG Appendix C) published on Water UK's website

D5.6.1 In order to achieve consistency between flow assessments made as part of our preplanning process and adoptable pumping stations delivered by developers, the following actual water consumption figures should be used to calculate the dry weather flow:

- 2.35 persons per property
- 125 litres per head per day
- 25% infiltration

The use of realistic criteria also leads to smaller pumps and reduced power costs, smaller rising mains and a lower emergency storage requirement:

- Pump rate = 4 x DWF (increased if necessary to achieve velocity between 0.75-1.8m/s)
- Emergency storage is 4 hours at 1DWF
- The peak inflow is considered to be 2.12 x DWF

D2.2 Anglian Water accepts pumping stations designed in accordance with the Design Construction Guidance and this Local Practice with a wet well depth of up to 8m, based on Anglian Water's safe working practices for lifting. A wet well depth which exceeds 8m in any pumping station type will require specific consultation with Anglian Water, as alternative powered lifting arrangements will be required.

D3.2 For residential developments, the number of properties served shall be used to determine the appropriate pumping station type, not the incoming peak design flow rate.

D3.2 For awareness - Type 4 pumping stations will need to conform with the Minimum Asset Standards and Water Industry Mechanical and Electrical Specifications applied within Anglian Water.

D5.1 Where pumping stations are located adjacent to or near other utility enclosures e.g. electrical distribution substations, layout and buried service drawings shall be issued to Anglian Water for future breaking ground works.

D5.3 For Type 3 pumping stations, the station compound (primarily the wet well/valve chamber) shall be illuminated with an energy efficient floodlight (5,000 lumen minimum) mounted at a height of approximately 4 metres above the work area, that can be lowered for maintenance purposes.

D5.3.5 Anglian Water's preference is for the compound to be secured using a 1.8m high brick wall, 225mm width with engineering brick DPC wherever this is possible. An expansion joint shall be provided in perimeter brickwork walls where wall length exceeds 5-6 m. A brick compound wall ensures the pumping station will match its surroundings and is more sustainable regards site security. Decorative fencing shall not be installed

close to, attached to, or interfacing with the compound wall or perimeter fencing due to climbing to access risk.

Compound access gates shall have the smallest gaps as practically possible around the sides and bottom, certainly no greater than 100mm. They must provide clear opening access of 3.8 m, accept a standard padlock, and include drop pins/bolts with permanent holes within the compound surface to secure gates in 'open' and 'closed' position. We will not accept access gates which are constructed solely of wood as this solution reduces security and maintainability. Galvanised steel bar is preferred.

D5.3.15 and Figure D1 A 65 mm bore davit socket shall be provided, meeting Anglian Water's asset standard found here - Davit Socket Details.

D5.6.3 Level control equipment (ultrasonics, radar) should be provided with a narrow detection beam angle or adjustable detection beam to suit the environment, surfaces or liquids.

D5.6.3.g There shall be sufficient clearance between the high level backup float and the telemetry high level alarm float required by Anglian Water's telemetry standards. The telemetry high level alarm float must activate before half the total retention capacity of the system has been reached, to give the best chances of avoiding pollution impact.

D6.1.7 At the discharge end tracer wire should be terminated with 1m of wire coiled inside a small but suitably sized and IP rated enclosure that will withstand long-term environmental exposure without deterioration. This enclosure must be accessible from ground surface level to enable safe future access and use.

D7.1.2 The system and equipment shall also be resilient enough to auto reset after (short-term undervoltage) 'brown-out' power situations. Refer to F3.3.11.4.7

D7.6.1 and Table F3 All pumping stations shall be provided with a means of monitoring pumped forward flow, that is connected to at least the telemetry system. The equipment shall be installed as per manufacturer's instructions to achieve long-term accuracy, resilience and ease of maintenance.

D7.7.2 Hinged access covers with spring torsion elements shall be effective for both opening and closing. Covers shall be capable of holding open at approximately 100mm from the closed position, shall not contact the closed surface frame when released from the fully open position, before full closure. Requiring no more than 40kg force to close from the 100mm held position.

D7.7.2.d All chambers (wet well/valve/flow meter) shall have covers with integral fall protection grids regardless of chamber depth. Therefore Anglian Water does not require the supplementary posts and rails for fall protection.

D7.7.3.b Unless there are specifically documented design needs, Anglian Water shall not allow open mesh or holes/slots within covers for venting. Where security fencing/wall is provided, Anglian Water will accept plastic vent pipes and cowl, the vent pipe must be positioned at the inside edge of the perimeter wall/fence and be of equal height.

D7.7.6 Chamber ladders should be in accordance with E2.37, preferably option 3 or 4, with retractable hand hold rail that can be raised above the cover level to aid safe access/egress.

D7.11.7 Kiosk construction form of any type except GRP must be agreed with Anglian Water during the technical review of the design.

D7.11.14 An integral door lock pre-drilled to accept a 40mm lock barrel is also acceptable to Anglian Water.

D7.11.16.a Anglian Water does not require a resuscitation sign.

F2.3.10.1 A pump starter design utilising a variable speed drive must also utilise at least one flow and/or pressure device within the control philosophy.

F2.3.12.2 Lifting points shall be designed for lifting the whole pump unit and be designed, supplied and marketed by the pump unit manufacturer.

F2.3.12.3.c If an existing handle or lifting point upon a pump will not meet these requirements, then an item must be fitted by the pump manufacturer, that is a recognised purpose designed part supplied by the manufacturer that provides at least 120mm clearance. It must form part of the fabric of the pump and the design and not be regarded as lifting equipment, thus not requiring testing under LOLER requirements.

If a pump cannot be supplied with the required lifting point to accept the required lifting equipment, then as an absolute last resort, Anglian Water under specific agreement may accept lifting chains. These will need to be subject to a written scheme of thorough examination. The chains will need to meet specific requirements i.e. short link BSEN 818, with larger links at 1m intervals, stainless chain – shackles – id and hooks, with pins secured.

F3.1 BS7671 specifies surge protection devices should be fitted. If they are not, a risk assessment including calculations must be provided.

F3.2.1 When variable speed drive units are installed, the manufacturer must be Anglian Water approved. The evidence to support their use must include the limitation of effects on power quality, including harmonics, aligning with the latest Anglian Water interpretation of the Energy Network Association Engineering Recommendations.

F3.2.1.7.a This certificate shall confirm the installation satisfies all appropriate design requirements of BS7671. As part of the certification process, the period to next inspection should be recorded. Anglian Water will expect at least an 18 month period between the due date and date of legal transfer.

F3.3.3.4.3 Doors shall have the requisite number of handles to ensure effective opening and closing, and shall require a key to unlock (not tool) for opening.

F3.3.6 Only thumb switches shall be installed on control panels. Keyed switches shall only be used for specific purposes that are agreed with Anglian Water.

F3.3.7 The stud for connecting to the earth conductor referenced in **F3.4.6.2.1.2** shall be in close proximity to the male appliance inlet.

F3.3.7.2 The position and angle of the appliance inlet shall be such that the connection with attached cabling is safe and ergonomically appropriate for the average person, given the kiosk size and layout.

F3.3.8.2.7 "the control system for the relevant pump shall"

F3.3.8.2.7.c start the alternate pump (if available)

F3.3.8.2.7.d inhibit the relevant unit from running

F3.3.8.4 and F3.3.8.5 For the purposes of Anglian Water standards, only two level designations shall apply: High Level Backup and High Level Alarm.

Any reference to High Wet Well Level within the DCG shall be deemed equivalent to the High Level Backup float, which shall act as the backup pump control float.

A second float, located above the High Level Backup float level and connected directly to the telemetry system, shall be designated the High Level Alarm float. The High Level Alarm float shall operate independently of the pump control system and shall provide a direct alarm signal to telemetry.

F3.3.8.4.7 Anglian Water requires option a, the associated indication lamp shall remain illuminated until the system reverts to Ultrasonic Level Control, it shall not require manual reset.

Table F 3 On Anglian Water installations the DCG reference to High Wet Well Level and Backup Control Systems indications are to be one and the same/combined. Therefore, the High High indication may be referred to as the High Level Alarm.

F3.3.11.1.1 Motor starter compartments – motor protection shall be in accordance with motor/pump unit manufacturer's warranty requirements.

F3.3.11.2.3.d The distribution board shall incorporate the protection devices supplying items e to i. The items themselves do not need to be mounted on the door.

F3.3.11.5.2 Intrinsically safe barriers shall be rated to 30 V minimum, due to telemetry outputs of approximately 28.8 V.

F3.3.11.5.3.c not required see **F3.3.8.4.7** of Anglian Water local practice.

F3.3.12.6.3.b not required see **F3.3.8.4.7** of Anglian Water local practice.

F3.4.1 An electrical isolator shall be installed after the electrical meter and before the main electrical assembly.

F3.4.1.2.1 At least 1 splash proof, IP54 (minimum) socket outlet, 13 A, 230 V, complying with BS 1363: Part 2: shall be provided inside the kiosk. This shall be provided with 30 mA RCD protection.

F3.4.1.5 Identification labels shall not be fixed solely to moveable or removable covers of junction boxes.

F3.4.5.4.1 If the pumping station is in a secure compound, pump connection junction boxes suitably IP rated shall be housed within a kiosk located at a safe distance but in close proximity to the wet well, with the same venting requirements as the main assembly kiosk.

F3.4.5.4.2 If the pumping station is not in a secure compound, the main assembly kiosk shall be provided with facilities to prevent the ingress of explosive or corrosive gases into the kiosk regardless of the hazardous area assessment of the wet well.

F3.4.6.1 Main earth conductors shall be connected to a main earth terminal bar to which the independent earth conductor for the generator will be connected. The DNO supply earth shall be easily disconnected or isolated from all other earth connections preferably by removeable link.

F3.5.2.1 Level control sensors/heads and floats shall be installed as described. If the sensors/heads and floats are mounted within the main well/chamber opening, the bracketing must be safely accessible from the non-hinged side of the well/chamber opening.

Appendix 1 10.d This certificate shall confirm the installation satisfies all appropriate design requirements of BS7671. As part of the certification process, the period to next inspection should be recorded. Anglian Water will expect at least an 18 month period between the due date and date of legal transfer.

Appendix 1 10.e Anglian Water will expect at least a 6 month period between the due date and date of legal transfer.

Appendix 1 10.f Anglian Water will expect at least a 6 month period between the due date and date of legal transfer.

Additional Services:

Anglian Water can provide monitoring of the pumping station via telemetry. Please liaise with our Telemetry Coordinator at the appropriate time who can confirm monitoring costs.

Acknowledgements:

This document has been produced by the Development Services Drainage Team. If you have any questions relating to the content, please contact us on **0345 60 66 087** or by email to drainage@anglianwater.co.uk

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