Reporting guidance – Mains repairs per 1,000km[1]

Objective

The guidance has been developed to enable all companies to report mains bursts per 1,000km of mains for the defined year following good practice and a reasonable level of accuracy and with a common approach. Companies shall apply consistent and robust methods and common assumptions. This will facilitate the comparison of performance across companies by customers, regulator and other companies with reasonable confidence.

Key principles

There are several key assumptions made in the compilation of the guidance:

- Reporting of mains bursts per 1,000km shall be subject to each company's assurance process which is applied to all measures reported annually;

- Companies have a methodology or procedure in place for reporting on mains bursts per 1,000km. The procedure is reviewed as part of their assurance process.

There is an assumption that there will be continued improvement by all companies in the short and medium term through innovation, new technology, data quality improvements and staff training:

- The measure assumes a clear and simple approach that can be understood by customers and regulators;

- The essential reporting requirements for reporting on mains bursts per 1,000km are set out;

- The focus on the guidance is on annual reporting of mains bursts per 1,000km. It is not intended as a definitive guide to managing the risk of mains bursts;

- Exclusions are to be kept to a minimum and shall be consistent with the reasonable expectations of an affected customer.

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[1] This is the same guidance as included in the March 2018 report for Ofwat and Water UK: "Targeted review of common performance commitments".

Exclusions

The default position is that the water company manages the risk of mains bursts and there are no exclusions. The cause of the mains burst is not relevant to the calculation of the reported figure, with the following exceptions and points of clarification:

- Any work that is not undertaken on the main e.g. solely on a ferrule, hydrant or valve and clamps associated with these ancillaries, which does not involve a repair on the main shall be excluded. Clamps used to repair the main shall be included.

- All third party damage should be excluded where costs are potentially (rather than actually) recovered from a third party.

Measure definition

The diagram below shows a simplified version of the process.
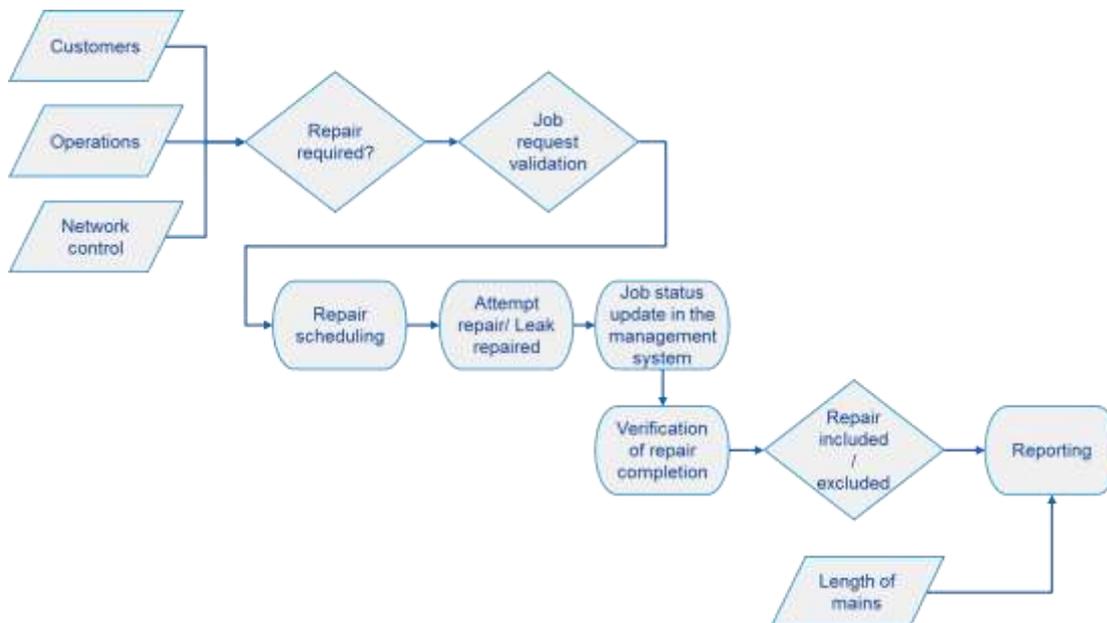
Component definitions

Mains bursts repair work

Number of mains bursts per thousand kilometres of total length of mains. Mains bursts include all physical repair work to mains from which water is lost. This is attributable to pipes, joints or joint material failures or movement, or caused or deemed to be caused by conditions or original pipe laying or subsequent changes in ground conditions (such as changes to a road formation, loading, etc. where the costs of repair cannot be recovered from a third party).

Any repair work undertaken on the water mains (i.e. all pipes conveying treated water around the distribution point but not including communication pipes or supply pipes) shall be included.

Any work that is not undertaken on the mains e.g. solely on a ferrule, hydrant, valve and clamp associated with the ancillary which does not involve a repair on the main shall be excluded. Clamps used to repair the main shall be included.

All incidents should be included which involve over-pressure or pressure cycling, and surge failures, etc., which reflect the system operating conditions, even where these failures are accidental rather than associated with weaknesses in pipe condition.

Once the main is recharged, and customers are back in supply, then if there is a new incident it is counted as a separate repair. If there is a secondary burst not at the point at where the repair took place during the recharge, then it should be captured as a separate reported burst.

Self-laid mains, or other mains adopted should be treated as part of the incumbents' network from the time of adoption. If a developer has a burst on its main prior to adoption this is not included within the metric.

Mains length

The length of main is the length of all pipes conveying treated water around the distribution point but not including communication pipes or supply pipes.

Records

All companies shall maintain verifiable records for all mains bursts irrespective of whether they are included. The aim of the records is to provide an auditable method for identifying the specific incident that are included and excluded from the return.

Methodology statement

Companies shall maintain a methodology statement. It shall be used as a decision support tool to expand on this document as necessary. It should record any changes in approach compared to previous years.

Compliance check list

The compliance check list shall be completed and presented with the reported figure.

Annex A - Compliance Checklist

A company is required to complete this checklist for submission with its value of mains bursts per 1,000km.

The elements of each component to be assessed separately based on the following rules:

Compliance for elements is reported against:

R	Not compliant with the guidance and having a material impact on reporting
A	Not compliant with the guidance and having no material impact on reporting.
G	Fully-compliant with the guidance

	Component	Compliant (R/A/G)	Reason for any non-compliant components	Confidence grade
1	Mains bursts repair work			
2	Mains length			
3	Records			
4	Methodology statement			

For each component on the checklist, and for the overall performance measure, companies will report a confidence grade.

Confidence grades provide a reasoned basis for companies to qualify the reliability and accuracy of the data. Companies should employ a quality-assured approach in the methodology used to assign confidence grades, particularly if sampling techniques are in place.

The confidence grade combines elements of reliability and accuracy, for example:

- A2 Data based on sound records etc. (A, highly reliable) and estimated to be within +/- 5% (accuracy band 2)

Reliability and accuracy bands are shown in the tables below.

Reliability Band	Description
A	Sound textual records, procedures, investigations or analysis properly documented and recognised as the best method of assessment.
B	As A, but with minor shortcomings. Examples include old assessment, some missing documentation, some reliance on unconfirmed reports, some use of extrapolation.
C	Extrapolation from limited sample for which Grade A or B data is available.
D	Unconfirmed verbal reports, cursory inspections or analysis.

Accuracy band	Accuracy to or within +/-	But outside +/-
1	1%	-
2	5%	1%
3	10%	5%
4	25%	10%
5	50%	25%
6	100%	50%
X	Accuracy outside +/- 100 %, small numbers or otherwise incompatible (see table below)	

Certain reliability and accuracy band combinations are considered to be incompatible and these are blocked out in the table below.

Compatible confidence grades				
Accuracy band				
	A	B	C	D
1	A1			
2	A2	B2	C2	
3	A3	B3	C3	D3
4	A4	B4	C4	D4
5			C5	D5
6				D6
X	AX	BX	CX	DX