

WAT-SG-42: COMMUNICATIONS PROTOCOL FOR COMPLIANCE SAMPLING AND REPORTING BETWEEN SEPA AND SW



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Version 3.2

PURPOSE

This document is intended to provide information on the processes developed between SW and SEPA covering:

1. The process for agreeing monthly and annual WwTW discharge compliance
2. The notification and communication of autosampler issues
3. Sample exclusions (including annexes)
4. Cancelling a SEPA sample result
5. Cancelling an operator self-monitoring sample result

Each process is detailed in the sections that follow.

Note that the communication protocol for the Annual Monitoring Plan is detailed in a separate document: Performance Standard MACS-WAT-02 - Sample and data management

1 PROCESS FOR AGREEING MONTHLY AND ANNUAL WWTW DISCHARGE COMPLIANCE

SEPA and SW agree the rolling CAR (1-tier and 2-tier) and UWWTD wastewater compliance on a monthly basis.

The procedure is as follows:

- Monthly compliance reports (PP460, PP465 and PP466) are produced by SEPA and issued to Scottish Water by the 25th day of the following month.
- Detailed Compliance Report SYS_BS is produced by SEPA and issued to Scottish Water on the 1st day of the month for the previous 12 months data.
- SEPA Q&S unit prepares the monthly summary of:
 - WwTW compliance
 - autosampler notifications
 - outstanding sample exclusion and cancellation requests
- SEPA and Scottish Water meet to discuss the monthly compliance position, autosampler issues and outstanding sample exclusion and cancellation requests.
- SEPA and Scottish Water will aim to agree the compliance position 14 days after submission of reports.

When these deadlines coincide with a holiday period then SEPA and SW will agree an amended timeframe.

Notifications regarding determinand failures are issued automatically to Scottish Water by SEPA's NEMS system.

Discharge compliance reports for individual samples are automatically generated and issued by SEPA to Scottish Water five days after the results for all compliance determinands have been received.

In March each year, SEPA will provide a summary of outstanding exclusion requests for the previous calendar and financial years relating to the National Liaison Group. Escalation routes are as follows:

- CAS – through SEPA regional line management;
- OPA – through SEPA Water and Land line management..

With regard to agreeing the annual compliance position, SEPA will provide a summary of the WWTW discharge compliance (for the calendar and fiscal year) to Scottish Water, by the end of May each year. This will include an indication of any outstanding exclusion/cancellation requests.

2 NOTIFICATION AND COMMUNICATION OF AUTOSAMPLER ISSUES

When an autosampler is not operational, it may not be possible to obtain a sample for compliance purposes. This is a particular issue if the sample is for UWWTD monitoring purposes.

Autosampler issues need to be rectified by Scottish Water within a short timeframe.

SEPA has notified Scottish Water that it intends to serve enforcement notices, as necessary, to ensure that any non-operational autosamplers are rectified in good time.

If Scottish Water becomes aware that an autosampler is not operating correctly, this must be reported to SEPA through the EPI system, as a category 4. If SEPA, during the course of its own sampling, becomes aware that an autosampler is not operating correctly in accordance with licence conditions, then SEPA will notify ScientificServicesOSMSampling@scottishwater.co.uk as soon as possible.

SEPA will then serve an Enforcement Notice and Scottish Water will have 2 weeks in which to comply with this notice, unless Scottish Water rectifies the situation before the EN is served.

This approach applies equally to inlet and final effluent autosamplers.

The serving of an Enforcement Notice will be subject to the normal individual assessment of the specific circumstances and reasonableness at the time e.g. it would not be reasonable to serve an EN if there was a generalised short term power failure of surrounding area etc.

Standard Autosampler Enforcement Notice templates are available for scenarios where: insufficient sample is available; the temperature of the sample is <0°C, or the temperature of the sample does not comply with the British Standard BS EN ISO 5667-3.

Scottish Water will inform SEPA through EPI once the issues have been rectified.

Planned SEPA sampling visits will be maintained during periods when the autosampler has been notified as not operating correctly.

3 SAMPLE EXCLUSIONS

Non-compliant sample results can be excluded from SEPA's Compliance Assessment Scheme (CAS) or SW's Overall Performance Assessment (OPA).

WAT-RM-40 (Assessment of Numeric Discharge Quality Conditions) specifies the reasons which would be applicable to exclude a non-compliant sample result from the numeric discharge compliance record which forms part of the CAS score.

Annex 1 specifies the reasons for excluding a non-compliant sample result from SR15 OPA.

The following sections explain the steps required when processing sample exclusions from CAS or OPA.

3.1 SAMPLE EXCLUSIONS FROM CAS

SEPA issues the analytical compliance report to Scottish Water.

Scottish Water has 14 days, from date of receipt of the analytical compliance report, to confirm if they will be requesting the exclusion of a non-compliant sample result. This should be submitted by email to the local SEPA team and the Q&S Unit. The email should contain the site name, the sample date and the sample number. This 14 day timescale aligns with the deadlines included in all licences for the notification of unusual weather conditions or submission of written incident investigation reports when requested by SEPA.

Scottish Water would normally be expected to provide sufficient evidence to support a request to exclude a non-compliant sample result from CAS within a month of receiving the analytical compliance report, In exceptional circumstances this timeframe may be extended but only following discussion with SEPA. However, SEPA will not accept a request to exclude a non-compliant result which exceeds 6 months from the date that the sample was reported as non-compliant.

The CAS/OPA Exclusion Tracking Form (see Annex 2) should be used for this submission and should be appended with supporting documentation. It should be submitted to the local SEPA Regulatory Services Team and Q&S Unit,

The local SEPA officer enters the exclusion request on the NEMS Exclude from Compliance system when it is received. The information entered on the system includes the reason for the exclusion request, the user logging the application, the date and time of the application and any additional comments.

The relevant SEPA Unit Manager undertakes the First Stage Review and agrees or disagrees with the reason for the Exclusion. The Unit Manager must record a comment if they disagree with the exclusion request. This is optional if the Unit Manager agrees with the exclusion request.

The relevant SEPA Area Manager reviews the exclusion request and First Stage Review comments and determines if the request should be approved or rejected. If the Area Manager approves the request, the exclusion is applied to the sample and the compliance record will be automatically updated. If the Area Manager rejects the request the exclusion will not be applied to the compliance record.

SEPA would normally be expected to confirm the outcome of the exclusion request within a month of receiving the CAS/OPA Exclusion Tracking Form from Scottish Water. In exceptional circumstances a different timeframe may be agreed between SEPA and Scottish Water.

The local SEPA Regulatory Services team will return the CAS/OPA Exclusion Tracking Form to Scottish Water detailing the outcome of the CAS exclusion request. A copy will be issued to the Q&S Unit, The revised compliance will be evident (if applicable) on the next monthly compliance reports (PP460, PP465 or PP466).

If a request to exclude a non-compliant sample result from CAS is rejected the result can still be considered for exclusion from OPA. If Scottish wish for the exclusion to be considered under CAS and OPA then this should be indicated on the exclusion tracking form by completing all the relevant sections. . There is no need to resubmit the form to SEPA.

This process is detailed in Annex 3 – Flowchart A3.1

3.2 SAMPLE EXCLUSIONS FROM OPA

SEPA issues the analytical compliance report to Scottish Water.

Scottish Water has 14 days, from date of receipt of the analytical compliance report, to confirm if they will be requesting the exclusion of a non-compliant sample result. This should be submitted by email to the local SEPA team and the Q&S Unit. The email should contain the site name, the sample date and the sample number.

Scottish Water would normally be expected to provide sufficient evidence to support a request to exclude a non-compliant sample result from OPA within 3 months of receiving the analytical compliance report, In exceptional circumstances this timeframe may be extended but only following discussion with SEPA. However, SEPA will not accept a request to exclude a non-compliant result which exceeds 6 months from the date that the sample was reported as non-compliant.

The CAS/OPA Exclusion Tracking Form (see Annex 2) should be used for this submission and should be appended with supporting documentation. It should be submitted to the local SEPA Regulatory Services Team and Q&S Unit,

The Q&S Unit will assess the request and consult with the local SEPA Regulatory Services Team, where applicable, and with Scottish Water during the monthly WWTW Compliance meetings.

SEPA would normally be expected to confirm the outcome of the OPA exclusion request within a month of receiving the CAS/OPA Exclusion Tracking Form from Scottish Water. In exceptional circumstances a different timeframe may be agreed between SEPA and Scottish Water.

The Q&S Unit will return the CAS/OPA Exclusion Tracking Form to Scottish Water detailing the outcome of the OPA exclusion request. A copy will be issued to the local SEPA Regulatory Services Team.

This process is detailed in Annex 3 – Flowchart A3.2

SEPA will record the outcome of the OPA exclusion request on a WWTW OPA Tracker Log. This will be shared with Scottish Water during the monthly WWTW Compliance meetings.

4 CANCELLING A SEPA SAMPLE RESULT

There are situations where it would be more appropriate to cancel a SEPA sample result rather than exclude it.

These include situations where there is reasonable doubt regarding the reliability of a sample test result due to, for example, sample collection, handling or transportation issues or there are concerns about the quality of the sample result.

In these situations, Scottish Water should contact the relevant SEPA local Regulatory Services (RS) Team to express their concerns about the sample result.

The SEPA local RS Team should contact the Evidence & Flooding (E&F) Advice Helpdesk who will coordinate an investigation and determine if the result should be cancelled.

SEPA E&F staff should issue the investigation report and findings to the local RS team.

The local SEPA RS team will then contact Scottish Water and explain the outcome of the investigations.

If a result is not cancelled then it will remain in the compliance history for the WWTW.

If a result is cancelled then a re-sampling event should be organised (where applicable).

5 CANCELLING AN OPERATOR SELF-MONITORING SAMPLE RESULT

Sample results produced under operator self-monitoring arrangements are governed by MACS (Measurement Assurance and Certification Scotland).

When data is cancelled prior to submission, the actions that SEPA requires of Scottish Water are detailed in MACS-WAT-02.

When data that Scottish Water has submitted to SEPA is subsequently found to have a sample handling, analysis or quality control issue, then the non-conformance process detailed in MACS-TG-03 must be followed. SEPA will then determine on a case-by-case basis whether result cancellation is appropriate.

With the exception of sample exclusion requests, all communications between SEPA and operators regarding self-monitoring arrangements should be via the SEPA Operator Monitoring mailbox.

6 ANNEXES

Annex 1: Basis for WWTW sample exclusions from SR15 OPA

- Evidence required in all cases: Mitigation measures taken.

Unplanned / Emergency works

This includes (but is not restricted to) the response to unexpected electrical, mechanical or structural works but does not include breakdowns or failures attributable to chokes. In this case there is little time to conduct a detailed risk assessment, although this should not stop whatever means are practically available to minimise adverse impact from being implemented.

SEPA must be informed through the agreed Environmental Pollution Incident (EPI) notification procedures as soon as the failure has been identified.

SEPA will consider excluding the sample(s) for OPA calculation purposes if a legitimate justification for exclusion is submitted by Scottish Water and all reasonable steps have been taken to minimise any adverse impact.

- Evidence required: maintenance records to demonstrate the breakdown was unavoidable. This includes completion records for scheduled maintenance tasks showing when the relevant plant or parts were last serviced/maintained and demonstrating that these tasks were completed in accordance with the planned maintenance schedule. Actual inspection records (e.g. completed weekly/daily task logs) are also required showing when the WWTW was last inspected to confirm that the WWTW was operating normally immediately prior to the failure or breakdown being discovered or during the last scheduled site visit. The planned inspection schedule for the WWTW should also be submitted.

Capital Works – i.e. Works within SR15

Where there is or has been investment through SR15, or where there is an agreed improvement plan to bring a discharge back into compliance, or an Enforcement Notice has been issued, samples can be excluded providing the agreed/legislative dates have not passed.

Where there has been a “Substantial Improvement” to an existing WwTW or a “new/replacement” WwTW has been constructed, SEPA will consider excluding sample(s) prior to the first sample after commissioning for OPA calculation purposes if a legitimate justification for exclusion is submitted by Scottish Water and all reasonable steps have been taken to minimise any adverse impact.

- Evidence required: SR15 technical expression code, scope and baseline/forecast date. Improvement plan agreed with SEPA following non-compliance

Unfinanced Capital Works

Where there are licence condition(s) to be met at sites that were not prioritised through previous Quality and Standards periods and the works cannot meet the requirements the first step would be for SEPA to determine if the license condition is appropriate.

- **Inappropriate Condition:** SEPA should issue a license variation to remove the condition. In the interim OPA should not be assessed against this condition and retrospective samples should not be used for OPA calculation purposes
- **Appropriate Condition:** SEPA should promote the requirement into Quality and Standards and issue a license variation to either remove the condition or to add time-phased conditions that are in line with Q&S.

In the interim OPA should not be assessed against this condition and retrospective samples should not be used for OPA calculation purposes.

Compliance during Construction and Commissioning

In order to carry out necessary remedial works or install new equipment/process units some individual process units may need to be taken off line for a period of time. This in turn could have a detrimental impact on performance.

Where it is not possible for individual process units to be taken off line for a period without affecting performance SEPA will consider excluding sample(s) from OPA assessment, based on: the nature and scale of the work; impact on compliance and the environment, and any mitigation measures adopted which limit environmental impact.

- Evidence required: Construction and Compliance Risk Assessment (CCRA) .

Low Flows / Extreme events

Wastewater treatment works are designed to operate within an envelope of flow above the designed Dry Weather Flow (DWF). On rare occasions, the inflow to the works may fall significantly below the designed DWF. This can present difficulties in achieving ammonia standards in the absence of designed nitrification processes. This exclusion does not apply to parameters other than ammonia and so does not include BOD or Suspended Solids exceedances attributable to 'Spring Shedding/Seasonal Sloughing'.

Where there is or has been investment through Q&S, or where there is an agreed improvement plan to bring a discharge back into compliance, or an Enforcement Notice has been issued, samples can be excluded providing the agreed/legislative dates have not passed.

SEPA will consider excluding samples for OPA calculation purposes if a legitimate justification for exclusion is submitted by Scottish Water and all reasonable steps have been taken to minimise any adverse impact.

- Evidence required: DWF data.

Prolonged Low Temperature

Cold weather is specifically referenced in Wastewater CAR licences and this refers to a defined set of conditions including; final effluent temperatures of 5°C or less, snow deposits, fluvial flooding and power loss caused by weather.

However, a recent UK Water Industry Research (UKWIR) Project (The implications of cold weather on nitrification treatment processes) has shown that the rate of nitrification is reduced substantially when wastewater temperatures are less than 8°C, and is extremely slow below 5°C and that there would be a recovery period before full nitrification is obtained.

SEPA will consider excluding samples for OPA calculation purposes if a legitimate justification is provided to demonstrate that prolonged low temperatures had affected the works ability to nitrify and all reasonable steps have been taken to minimise any adverse impact.

- Evidence required: Temperature record; monitoring data indicating how the process was operating before, during and after the low temperature event. The monitoring data should demonstrate the impact on and recovery of the nitrification process.

Annex 2: CAS/OPA Exclusion Tracking Form

SCOTTISH WATER CAS/OPA EXCLUSION TRACKING FORM

Note: all forms should be copied to SEPA's local regulatory team, Regulation@scottishwater.co.uk and QandSUnit@sepa.org.uk

Sampled from (site name):			
CAR Licence number:			
SEPA location code:		Sample Number:	
Date of sample:		Time of sample:	

Non-compliant parameter(s) (circle or highlight in bold)	BOD	COD	Ammonia	Total N	SRP	Total P	Suspended Solids	Other (please specify):

Evidence	
EPI reference (if applicable):	
ELMS event reference (if applicable)	
Basis of exclusion request - please summarise and refer to any attached correspondence/information/reports/photographs/data.	

Scottish Water contact name:	
Email:	

Date compliance report received by Scottish Water:	
STEP 1: Date Scottish Water indicates that a request to exclude the non-compliant sample result will be submitted (target = 2 weeks after compliance report received)	
STEP 2: Date CAS and/or OPA exclusion request (including this form and relevant evidence) submitted by Scottish Water. <i>(CAS submission target date = 1 month after compliance report received by SW, unless there are exceptional circumstances) OPA submission target date = 3 months after compliance report received by SW, unless there are exceptional circumstances.</i>	
STEP 3: Date CAS exclusion request determined and NEMS process completed by SEPA local regulatory team (target = 1 month after exclusion request received from Scottish Water)	
STEP 4: Date OPA exclusion request determined by SEPA Q&S Unit (target = 1 month after exclusion request received from Scottish Water)	

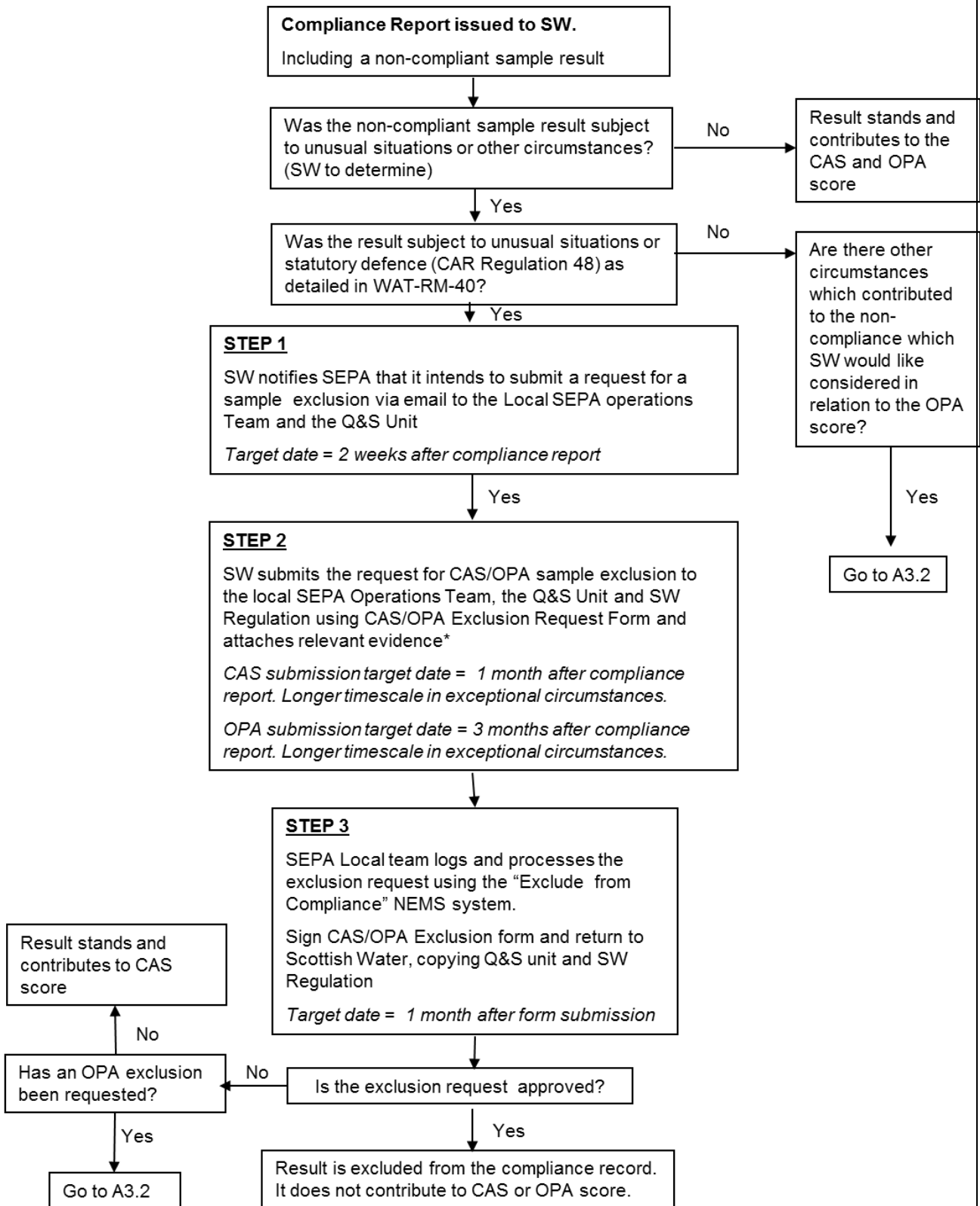
CAS exclusion requested? Refer to WAT-RM40 (tick all that apply below)	YES/NO
Low ambient temperatures (evidenced by effluent temperatures of 5°C or less or freezing of mechanical equipment)	
Snow deposits sufficient to affect normal operation of the STW	
Tidal or fluvial flooding	
Weather conditions causing unforeseen loss of power supply to the treatment plant which could not be ameliorated by the reasonable provision and operation of standby facilities	
CAS Section 4.3 (Agreed Improvement Plan for bringing discharge back into compliance)	
Statutory defence (CAR Reg 48) - unforeseen accidents, force majeure or serious harm prevention	
SEPA Local Regulatory Team determination of CAS request	
Delete as appropriate: Accept / Reject	
Reason for rejection (and/or refer to correspondence)	
SEPA Name:	

OPA exclusion requested? Refer to OPA guidance (tick all that apply below)	YES/NO
Unplanned / emergency works	
Financed capital works (SR15)	
Unfinanced capital works	
Construction and commissioning	
Low flows	
Prolonged low temperature (impacting on the nitrification process at the WWTW)	
SEPA Q&S Unit determination of OPA request	
Delete as appropriate: Accept / Reject	
Reason for rejection	
SEPA Name:	

CAS OPA exclusion tracking form v2.0

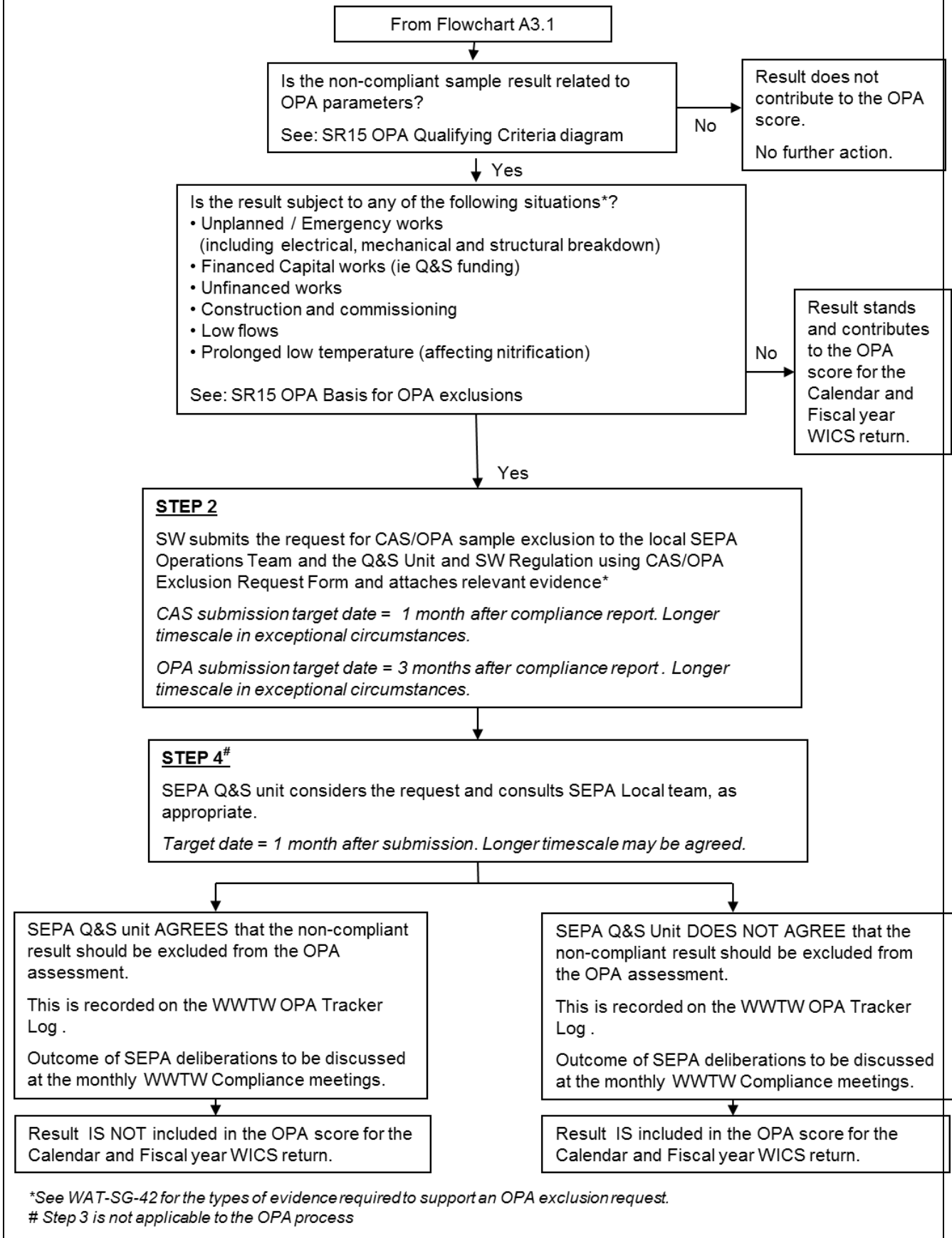
Annex 3: Exclude from CAS and OPA flowcharts

Flowchart A3.1 – Exclude from CAS Process



*See WAT-RM-40 for categories of unusual situations and types of evidence required to support a CAS exclusion request.

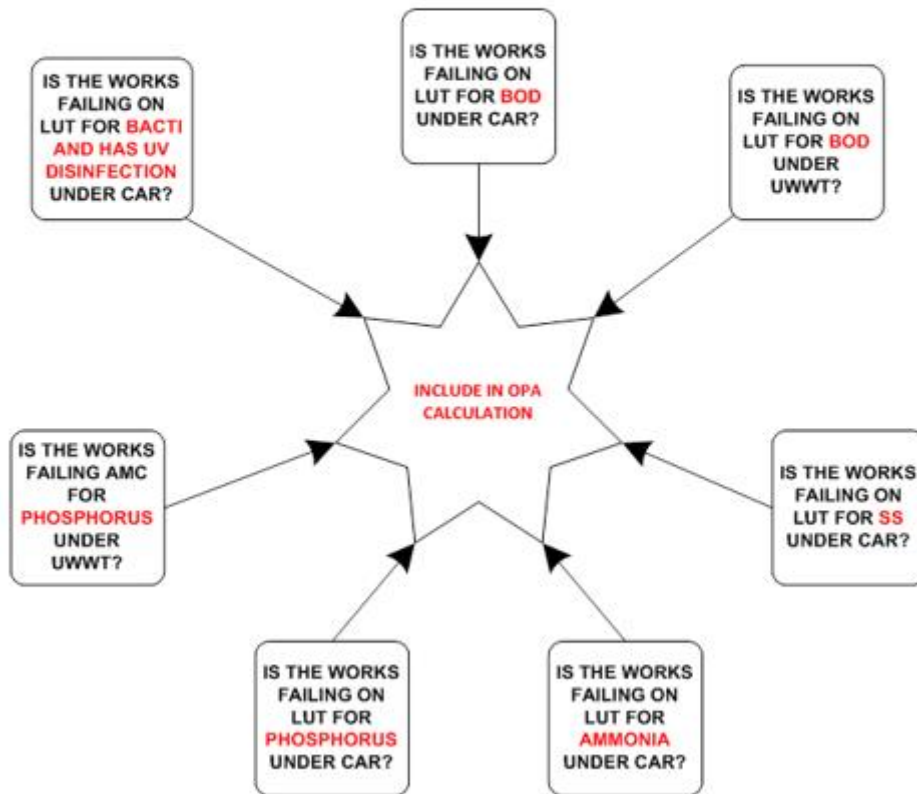
Flowchart A3.2: Exclude from OPA Process



SR15 OPA Qualifying criteria

OPA score is measured against the number of failing works (LT/LUT & OPA)

Determined by diagram below:



Where LUT = Look Up Table