



# **DM READ REJECTIONS FOR CLASS 1 SITES**

**Version 1.0**

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## 2 Introduction

### 2.1 Purpose of document

With the introduction of Nexus, additional validation rules were implemented to the submission of Class 1 reads via the DLC File. The new validation ensures the data loaded into UKLink, is accurate, improving quality and ensuring the integrity of downstream processes.

As part of the implementation, a task force was introduced to co-ordinate between Xoserve, Shippers and the DMSPs to look at reducing the high volumes of DM estimates as a result of the additional validation and data quality issues brought over from legacy. From this, areas were identified where knowledge sharing would improve these business as usual processes between all parties to keep the portfolio of estimating DMs to a minimum and/or resolved in a timely manner to limit impact on Unidentified Gas (UIG).

This document aims to provide all interested stakeholders with clarity of the DLC read rejection reasons (provided by the RPA file to the DMSP), possible root causes and guidance on potential resolution steps. It is thought that by clearing the rejections and tackling the root causes it will increase actual reads being submitted into UKLink and reduce estimates at D-7 which will feed the monthly UIG.

Please note that the below only covers issues relating to DLC rejections, if the DMSP does not submit reads for Class 1 sites, then no rejections will be received. There may be Class 1 sites under contract with assets installed that are estimating and subsequently feeding UIG, but the DLC reads have not been submitted. It is advised that Shippers monitor their DM portfolio via the MDR file and if continued estimates are experienced, Shippers should contact their DMSP representative to confirm if DLC records are being sent.

Also, please note that some elements of this document (e.g. tolerance issues) will relate to site visit reads submitted by the DMSP via the Portal. These reads are validated back to the previous site visit read and not the last actual read as per normal daily reads sent in via the DLC file.

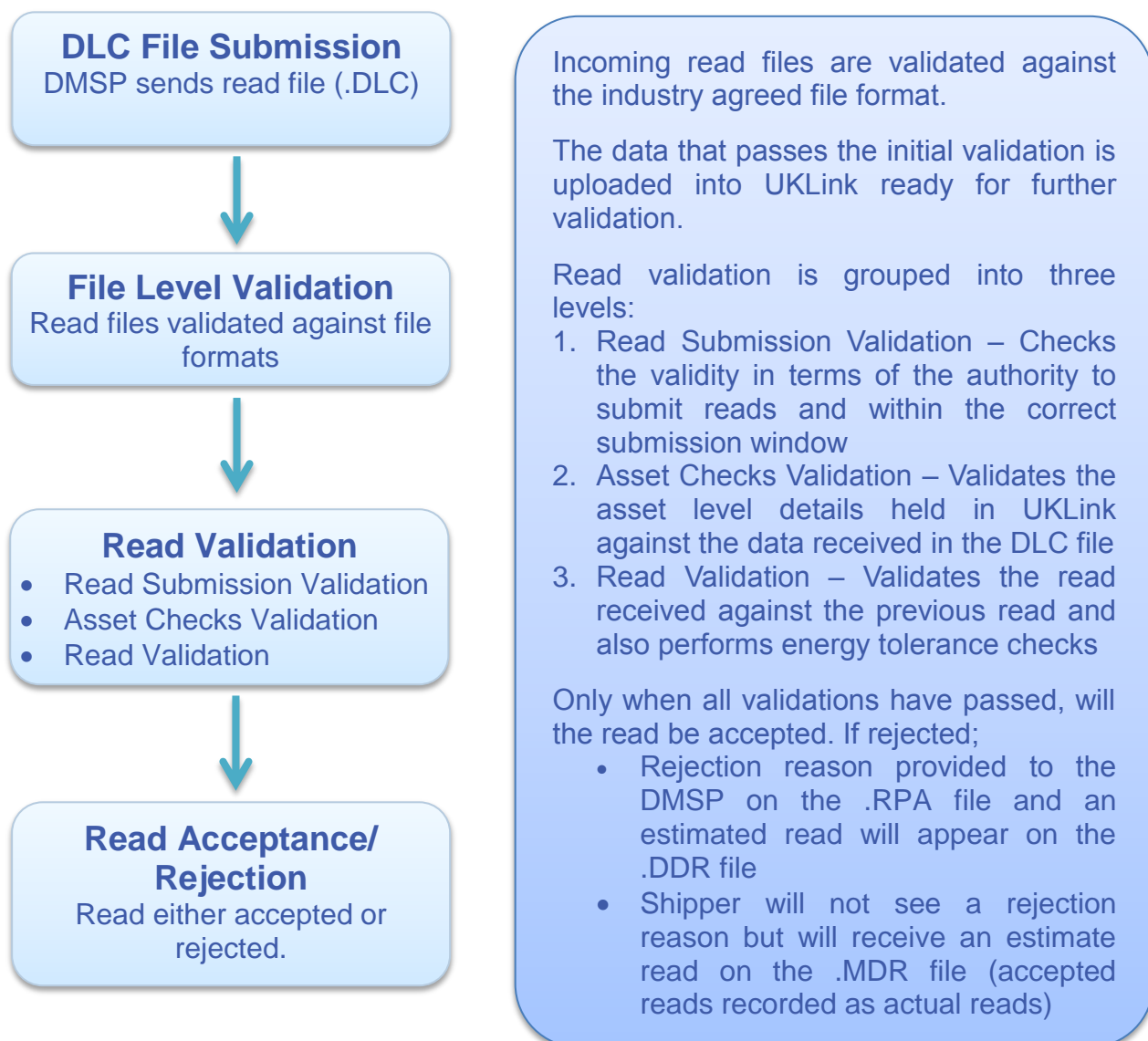
### 3 Process Overview

The following section provides an overview of the read validation process and other processes which are impacted.

Further details can also be found in the **Network Code Validation Rules (post Nexus)** document which is located at <https://www.gasgovernance.co.uk/tpddocs>.

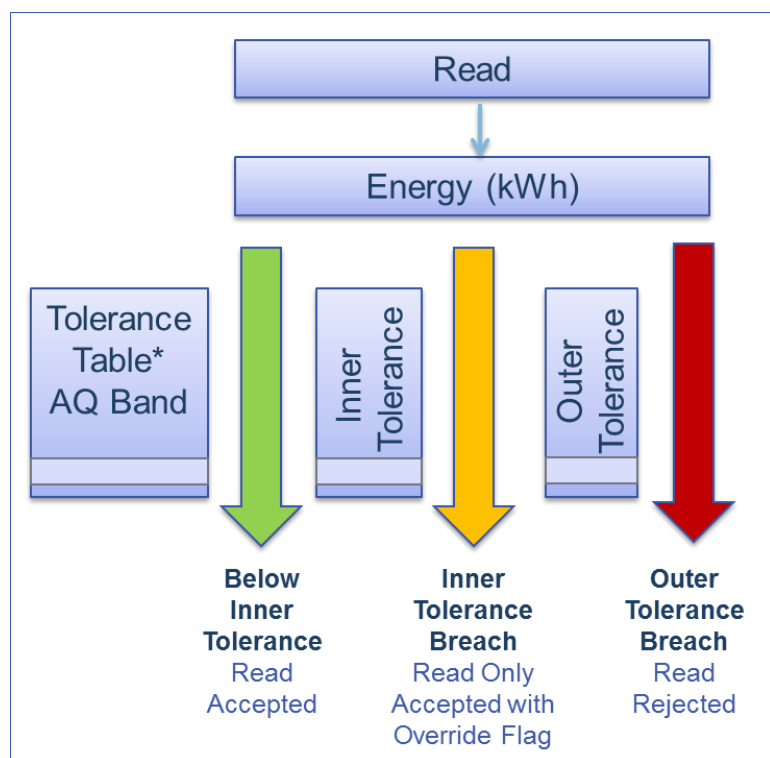
#### 3.1 Read Validation

The below process flow outlines the general rules applied to Class 1 reads received via the DLC file from the DMSP.



### 3.1.1 Read Validation: Energy Tolerance

UKLink calculates consumption via the DLC reads and checks against permitted tolerance levels for the appropriate AQ banding. The below diagram summarises the three possible outcomes of the tolerance checks.



Where the energy falls below the inner tolerance level it is accepted (where no Override Flag is provided).

If the inner tolerance is exceeded but is below the outer tolerance, the DMSP can override the breach and the read will be accepted (providing that the energy does not exceed the outer tolerance).

Note: if the DMSP overrides the read, but it has not breached the inner tolerance, then the read is rejected.

Please refer to the Tolerance Table in section [5.6 Meter Read Tolerance Ranges](#) for further details.

### 3.2 Consumption Adjustments

Consumption is calculated by UKLink based upon the difference between two reads and the billable device set-up (Dials/Reg Factor/Correction Factor etc). There are circumstances where this consumption may be incorrect and an adjustment is required:

- Meter is on Bypass
- Daily Read Error
- Faulty Asset
- Confirmed Theft of Gas
- OFMAT

Consumption Adjustments are used to change the calculated volume for a period and this activity is normally undertaken by the DMSP within Read Closeout (D+5) via the Xoserve Services Portal. Outside Closeout, the DMSP are able to use the CMS to change consumption by raising an RFA (Request For Adjustment) Contact via CMS. Alternatively, Xoserve can change consumption manually in special circumstances (e.g. Twin Stream Meter Supply Points).

The DMSP must provide an adjustment reason and the total corrected volume for the required period.

### 3.3 Faults

Where there is a fault on site (with the Meter, Converter or Daily Read Equipment), the DMSP can flag this via the site in the UKLink Portal.

Once the flag is set, reads received during the fault period are suspended and are not subject to tolerance checks. UKLink will then calculate an estimate read based on D-7 consumptions. The fault can be ended only by;

- i. Fixing the fault on site by exchanging the faulty device followed by an RGMA to update UKLink accordingly. The RGMA flow will set the Exchange Date as a “Site Visit” and carry out reconciliation back to the previous Site Visit Read. This RGMA activity will automatically remove the fault on the effected MPRN.
- ii. If no exchange was needed on site but work carried out on the devices then the DMSP can submit a Site Visit via the portal to realign the reads in UKLink, this will trigger check to check reconciliation and automatically clear the fault on the effected MPRN.
- iii. DMSP to mark the fault as “set in error” via the portal; however this can only be done if there is no error and no consumption adjustments have been submitted for the fault period. If consumption adjustments have been processed then ii above would need to be followed, otherwise DLC reads will continue to reject going forward.



## 4 Read Rejection Reasons and Resolution

This section outlines the rejection reasons that occur as a result of failed validation on submitted readings via the DLC file.

### 4.1 Summary of common rejection reasons

Listed below are the most common DLC read rejections that were dealt with during the implementation of Nexus. The Read Rejection Code and Reason is provided, along with reference to section of this document where further details can be found. To navigate to a specific rejection reason in section 4.4 please use Ctrl+Click on the required Read Rejection Reason.

The Rejection Codes will appear in the following fields on the RPA file format:

- Object Class Code
- Message Code

Section	Rejection Code	Read Rejection Reason
4.4.1	MAN00202	<a href="#">Invalid number of dials</a>
4.4.2	TOL00004	<a href="#">Reading breached the upper Outer Tolerance</a>
4.4.3	TOL00005	<a href="#">Reading Breached the lower Outer Tolerance</a>
4.4.4	DAT00020	<a href="#">Meter Serial Number mismatch</a>
4.4.5	FAU00002	<a href="#">Read received in fault period</a>
4.4.6	ACA00003	<b>Error! Reference source not found.</b>
4.4.7	CNF00051	<a href="#">No Confirmation Reference found for Meter Point</a>
4.4.8	TOL00006	<a href="#">Reading Breached the upper Inner Tolerance value and no override flag provided</a>
4.4.9	TOL00001	<a href="#">Energy within tolerance and override flag provided</a>
4.4.10	DLG00486	<a href="#">Previous meter read is greater than the current read and RTC indicator is zero</a>
4.4.11	DAT00016	<a href="#">Incorrect round the clock indicator provided</a>
4.4.12	COR00002	<a href="#">Convertor serial number is not associated with the MPRN</a>
4.4.13	DAT00004	<a href="#">MPRN is not identified as class 1 site</a>
4.4.14	MET00001	<a href="#">Meter does not exist</a>
4.4.15	DLG00413	<a href="#">Incorrect Imperial/Metric indicator provided</a>
4.4.16	DAT00003	<a href="#">MPRN not live in system (dead or extinct)</a>
4.4.17	DLG00450	<a href="#">Daily Daily Read Equipment does not exist</a>



## 4.2 Other rejection reasons

In addition to the more commonly seen rejection reasons in section 4.1, other rejections can be generated but are seen less frequently. The remaining read rejection reasons are listed below for reference but this document does not cover the more detailed description, resolution and root cause.

Rejection Code	Read Rejection Reason
<b>MPO00001</b>	Meter Point does not exist
<b>MPQ00001</b>	Meter Point annual quantity does not exist
<b>DNW00011</b>	This DMSP is not authorised to send the data logger read for the Meter Point
<b>LCV00018</b>	Calorific Value does not exist
<b>CNF00051</b>	No Confirmation Reference found for Meter Point
<b>DLG00112</b>	Data logger faulty
<b>DLG00400</b>	No previous reading exists
<b>DLG00424</b>	Convertor asset number provided but read missing
<b>DLG00426</b>	Incomplete meter read data
<b>DLG00450</b>	Daily Read Equipment does not exist
<b>DLG00484</b>	Read date provided is greater than six days old
<b>DLG00489</b>	Reading provided for the period when Daily Read Equipment was not operational
<b>DLG00492</b>	Actual reading already received
<b>DLG00493</b>	Reading text field contains a non-numeric value
<b>DLG00499</b>	Provided Corrected readings are incorrect
<b>MRE00501</b>	No Convertor, corrected reading received
<b>DLG00501</b>	Provided read date is incorrect
<b>MRE00502</b>	Corrected reading not provided for a Convertor attached site
<b>DLG00517</b>	Imperial/Metric indicator not equal to I or M
<b>DLG00626</b>	Reconnection not found for Isolation reference
<b>DAT00001</b>	Convertor read provided but asset number missing
<b>DAT00002</b>	Read date incorrect (future date)
<b>DAT00007</b>	Read date within Check to Check Rec period
<b>DAT00013</b>	Meter device status not live
<b>DAT00018</b>	Meter round the clock blank
<b>DAT00019</b>	Meter round the clock non numeric
<b>COR00002</b>	Convertor serial number provided but not Convertor attached
<b>COR00003</b>	Convertor Round the Clock provided for site without a Convertor
<b>DAT00014</b>	Convertor device status not live
<b>DAT00021</b>	Convertor round the clock non numeric
<b>DAT00022</b>	Convertor round the clock blank for a convertor connected site
<b>TOL00002</b>	No Convertor present for a variable pressure site
<b>TOL00003</b>	Convertor tolerance factor should be within an acceptable predefined range
<b>TOL00007</b>	Reading Breached the lower Inner Tolerance value and no override flag provided
<b>TOL00008</b>	Convertor tolerance breached higher tolerance value
<b>DLG00556</b>	No Actual reads received

### 4.3 Non-Standard Sites

The guidelines provided in section **4.4 Rejection Description, Resolution and Possible Root Cause** will support DMSPs and Shippers in understanding the individual read rejections in more detail. There are some instances however where the resolution differs; these relate to non-standard sites such as Twin Stream and Prime Meters. A brief summary is provided below;

- **Twin Stream** – after initial investigation of the rejection, if the DMSP and/or Shipper are unable to ascertain the root cause and resolution they should raise a ticket via the Xoserve Help Desk providing as much detail as possible. Please note that if the rejection is at site level, a rejection will be generated per stream. If the rejection is at configuration level, only a single rejection will occur.
- **Prime Meter** – Prime sites are treated as a normal Class 1 site so the individual resolution methods can be attempted. However, read rejections relating to tolerance issues may be experienced that may require support from Xoserve to resolve. This is because Prime Tolerances are carried out on the Net-Off consumption (Gross Consumption - Sub Consumption). After initial investigation, if the DMSP and/or Shipper are unable to ascertain the root cause and resolution, they should raise a ticket via the Xoserve Help Desk providing as much detail as possible.

#### 4.4 Rejection Description, Resolution and Possible Root Cause

This section details the most frequently seen rejection reasons that occur as a result of failed validation on submitted readings via the DLC file. A high level description of each rejection, possible root cause, and potential resolutions or guidance to resolve is provided. Resolution is the responsibility of the DMSP and/or the Shipper, and these are specified within each rejection reason.

##### 4.4.1 Invalid number of dials

Description:	<p>Population of the Meter and/or Corrector Read field within the DLC file states that it must be padded to the agreed number of dials for that device (excluding the Reading Units, i.e. meter 8 x 10 does not require the trailing 0 that represents the 10).</p> <p>For example, a meter has 8 dials with a reading of 2345 so the DLC should contain 00002345.</p> <p>Where the number of digits in the field does not match with the device dial count on UKLink, the rejection of "Invalid number of dials" is provided.</p>
Possible Root Cause:	<p>1) The read fields in the DLC are not "padded" with the correct number of dials.</p> <p>2) The device on UKLink has an incorrect dial count.</p>
Resolution:	<p>1) DMSP to amend the DLC record to have the correct number of digits so it is in line with UKLink (a Site Visit may be required to determine the correct dial count and set-up).</p> <p>2) Shipper to carry out a device exchange/update via RGMA to get the device in line with the correct dial count. With dial mismatches, it is best to use the estimate reads to close out the old device(s) and use the DLC reads (once agreed on the accuracy) as the opening readings. This is to avoid potential RGMA rejections.</p>

##### 4.4.2 Reading breached the upper Outer Tolerance

Description:	<p>Reads submitted via DLC undertake tolerance checks against the last actual read present in UKLink. Tolerance levels are determined by the relationship between a site's AQ and SOQ, where the calculated consumption between the DLC read and the last actual read is higher than the Outer Tolerance value (also known as a Market breaker tolerance) a rejection of "Reading breached the upper outer tolerance" is received.</p> <p>For further information on tolerances, please refer to the Tolerance Table in section <a href="#">5.6 Meter Read Tolerance Ranges</a></p>
Possible Root Cause:	<p>1) Consumption at the site is larger than the allowable consumption as derived by the AQ/SOQ.</p> <p>2) The submitted DLC read is not relating to the last actual read in UKLink (i.e. Site Visit has been carried out to re-configure the onsite device(s) but the new reads have not been submitted into UKLink via the portal to re-align the</p>

	<p>reads).</p> <p>3) RGMA update has been carried out by the Shipper but the readings used do not relate to the DLC reads.</p> <p>This can be a result of a cosmetic exchange where UKLink has estimated the readings (too low when compared to DLC for the same date), the submitted RGMA exchange readings being valid but are for an historical date or the submitted RGMA exchange readings not being associated with the MPRN.</p>
Resolution:	<p>1) Shipper to re-nominate their DM SOQ value to a more accurate level and/or submit an AQ Correction.</p> <p><i>Note:</i> Further guidance on the AQ Correction process can be found on the UKLink Information Library (see link below). Navigate to Resource Lists &gt; Shippers &gt; Shipper Table of Resources 2 of 3 &gt; AQ Correction Presentation. <a href="http://www.xoserve.com/wp-content/uploads/UK-Link-Information-Library.pdf">http://www.xoserve.com/wp-content/uploads/UK-Link-Information-Library.pdf</a></p> <p>2) DMSP to submit a Site Visit via the portal to reflect the new read position.</p> <p>3) Shipper to provide another RGMA update to close out on estimate read (obtained from MDR File) and open on the actual read from the DLC file (for the correct date). The Shipper may need to speak to the DMSP to obtain the DLC Reads for the exchange date (Opening Reads).</p>

#### 4.4.3 Reading Breached the lower Outer Tolerance

Description:	<p>The rejection reason of 'Reading Breached Lower Outer Tolerance' comes as a pair with 'Incorrect Round the Clock Indicator provided' when the calculated energy for the billable device creates a negative consumption for the period. i.e. the DLC reads are lower than the last actual in UKLink.</p> <p>For further information on tolerances, please refer to the Tolerance Table in section <a href="#">5.6 Meter Read Tolerance Ranges</a></p>
Possible Root Cause:	<ol style="list-style-type: none"> <li>1) Round The Clock (RTC) count is missing. If the meter or corrector has made a complete revolution of the dials between readings, the new reading will be lower than the previous. The term Round the Clock (RTC) refers to the number of times the meter or convertor has gone "through the zeros" (TTZ).</li> <li>2) RGMA update has been carried out by the Shipper but the readings used do not relate to the DLC readings being submitted by the DMSP (incorrect reads used on the Exchange Effective Date).</li> <li>3) Site Visit by the DMSP has not been processed after re-sync meaning the submitted DLC readings are not in line with the last actual read in UKLink.</li> <li>4) DLC reads have been rejecting for other reasons but fixed. However, during this period the meter or corrector has made a complete revolution and the DLC read indicating this (with the RTC present) was rejected, so future readings submitted will have a missing Round The Clock (RTC) count when compared to the last actual read in UKLink.</li> </ol>

Resolution:	<ol style="list-style-type: none"> <li>1) DMSP to send in the DLC Read with the correct RTC count present. If this cannot be amended before being sent, raise a helpdesk ticket for Xoserve to process the DLC reading with a RTC count.</li> <li>2) Shipper to provide another RGMA update to close out on the estimated read (obtained from the MDR File) and open on actual read from DLC (for the correct effective date). The shipper may need to speak to the DMSP to obtain the DLC reads for the exchange date (opening reads).</li> <li>3) DMSP to submit site visit via the Portal to reflect new read position.</li> <li>4) DMSP to send in the DLC Read with the correct RTC count present. If this cannot be amended before being sent, raise a helpdesk ticket for Xoserve to process the DLC reading with a RTC count.</li> </ol>
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#### 4.4.4 Meter Serial Number mismatch

Description:	The rejection “Meter Serial Number mismatch” is generated when the Meter Serial Number (MSN) that has been provided in the DLC file does not match the MSN that is stored on UKLink for the specified MPRN.
Possible Root Cause:	<ol style="list-style-type: none"> <li>1) The MAM has exchanged the meter or the MSN has been amended to reflect the onsite meter. The Shipper has updated UKLink via RGMA but the DMSP has not been informed to amend their system accordingly, leading to the MSN on the DLC file to be incorrect.</li> <li>2) The DMSP have amended the MSN at advice of the MAM or following their own Site Visit that has not yet been reflected on UKLink via the Shipper (RGMA file not received/not processed), leading to the MSN on UKLink to be outdated.</li> <li>3) Both systems (UKLink &amp; DMSP) have updated the MSN following a Site Visit but one of them has misinterpreted the written MSN (e.g. 1 instead of 11), leading to both not matching.</li> </ol>
Resolution:	<ol style="list-style-type: none"> <li>1) DMSP to amend the MSN on their system (may need a Site Visit to confirm details) that will then flow into the produced DLC file, rectifying the mismatch.</li> <li>2) The Shipper to submit an RGMA update to correct or exchange the meter to match the details agreed to be on site.</li> <li>3) Shipper and DMSP to agree a correct interpretation of the MSN and correct as above where necessary.</li> </ol>



4.4.5 Read received in fault period	
Description:	The “Read received in fault period” rejection is provided when a DLC read is submitted where a fault is active on the site for the date of the submitted read.
Possible Root Cause:	<ol style="list-style-type: none"> <li>1) There is a valid fault on site so the DLC reads are not deemed as accurate, so this rejection is a notification to DMSP that a fault is still active. Flag remains until fault is resolved and reads can be processed.</li> <li>2) Fault flag has been set incorrectly or by accident where not needed.</li> <li>3) Fault flag has been set to facilitate the DMSP submitting consumption adjustments. <i>Important Note: The fault process should not be used to facilitate consumption adjustments where no actual fault on site is present.</i></li> </ol>
Resolution:	<ol style="list-style-type: none"> <li>1) Shipper and/or DMSP to facilitate a Site Visit to fix the error on site. Once completed, either a Site Visit (via DMSP) to re-sync the readings post the fault or the Shipper would need to carry out an exchange (via RGMA) on the faulty device. This would clear the fault automatically once one of the above actions has been processed and allow future readings to load.</li> <li>2) DMSP or Shipper (depending who originally set the fault) to remove it as invalid (<i>should only be done if no consumption adjustments have been processed since the fault was set</i>). Any reads received during the fault period will be unsuspending and validated in accordance with read validation rules with the appropriate response file provided.</li> <li>3) The fault flag should never be set where no actual fault is present at site. If the Shipper is questioning the consumption on site, the Daily Read Error Process* should be used by the DMSP to amend as agreed without the need for a fault flag.</li> </ol> <p><i>*Important Note: DMSPs will follow the <b>Daily Read Error Process</b> to manage issues with the daily read equipment (data logger or AMR) by inputting daily adjustments via the portal for each gas flow day (within closeout). Timescales are very important for this process as the daily read error must be flagged within closeout, and although the consumption adjustment does not have to be input within closeout, the daily read error must be entered on a <u>day by day basis</u>.</i></p>

4.4.6 Read date in consumption adjustment period	
Description:	The rejection “Read date in consumption adjustment period” is received when no fault is present but between the submitted DLC read date and the last actual read date in UKLink, there are Consumption Adjustments present that prevents the better estimate process from running.
Possible Root Cause:	<ol style="list-style-type: none"> <li>1) The original fault flag was set to facilitate Consumption Adjustments and then removed as invalid; this is a result of the correct process for removing a fault not being followed.</li> </ol>

Resolution:	1) This should not occur if the appropriate use of the fault flag is used. However, if it has then to resolve the rejection either; a Site Visit needs to be submitted by the DMSP or a Corrective Exchange to be processed by the Shipper to close out the historical Consumption Adjusted period.
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#### 4.4.7 No Confirmation Reference found for Meter Point

Description:	The “No Confirmation Reference found for Meter Point” error is given when there is no confirmation present on the day of the submitted read date for the specified MPRN.
Possible Root Cause:	1) Shipper has withdrawn from the site leaving it Shipperless and the DMSP have yet to react to the GCC notification file. 2) Greenfield site where the DLC reads have started to be submitted before the confirmation has become effective in UKLink.
Resolution:	1) DMSP to action the GCC file and update their system stating they no longer need to send read data in for the specified MPRN and stop populating a DLC record. 2) Nothing, timing issue with regards to the Confirmation going live. Once it has gone live, reads should flow when the confirmation effective date has been reached. However, a Site Visit may be required via the portal to align the readings from the DLC as opening reads for the Confirmation Effective Date may be estimated by UKLink (i.e. could be too high or too low leading to tolerance issues).

#### 4.4.8 Reading Breached the upper Inner Tolerance value and no override flag provided

Description:	UKLink calculates consumption between the DLC submitted read and the last actual read in UKLink. If the consumption is above the inner tolerance but lower than upper tolerance, the system will only accept the read if the Override Flag field on the DLC O10 record is “Y”. Where the override flag is missing, the DLC record is rejected with “Reading Breached the upper Inner Tolerance value and no override flag provided”.  For further information on tolerances, please refer to the Tolerance Table in section <a href="#">5.6 Meter Read Tolerance Ranges</a>
Possible Root Cause:	1) DMSP system calculates the consumption to be within tolerance so leaves the Override Flag field as null. 2) Last actual read in UKLink is an Opening Reading via an RGMA exchange/update and this read is too low (e.g. estimated) meaning the consumption calculated against the submitted DLC read is higher than the tolerance allows but the DMSP tolerance calculations are using day to day actual DLC readings.



Resolution:	<ol style="list-style-type: none"> <li>1) The Shipper provides the AQ/SOQ to the DMSP to ensure they are in line and tolerance is calculated accordingly. If the read is correct and the consumption exceeds the upper inner tolerance level, the Override Flag field on the DLC record should be "Y". The Supply Meter Point AQ and SOQ can also be located on the Supply Point Detail screen within the portal.</li> <li>2) Shipper should provide another RGMA update to close out on estimate read (obtained from MDR File) and open on actual read from DLC (for the correct date). The Shipper may need to speak to the DMSP to obtain the DLC Reads for the exchange date (Opening Reads).</li> </ol>
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#### 4.4.9 Energy within tolerance and override flag provided

Description:	<p>The rejection "Energy within tolerance and override flag provided" is generated where the DLC record contains a "Y" in the Override Flag field but UKLink has determined that consumption is within tolerance.</p> <p>For further information on tolerances, please refer to the Tolerance Table in section <a href="#">5.6 Meter Read Tolerance Ranges</a></p>
Possible Root Cause:	<ol style="list-style-type: none"> <li>1) DMSP system calculates consumption and has incorrectly determined the need for an Override Flag.</li> <li>2) Last actual read in UKLink is an Opening Reading via an RGMA exchange/update and this read is too high (e.g. estimated). Meaning the consumption calculated against the submitted DLC read is lower than the requirement for an override flag but the DMSP tolerance calculations are calculating using actual DLC readings.</li> </ol>
Resolution:	<ol style="list-style-type: none"> <li>1) The Shipper provides the AQ/SOQ to the DMSP to ensure they are in line and tolerance is calculated accordingly – where necessary the DLC file will need to be updated to remove the override flag. The Supply Meter Point AQ and SOQ can also be located on the Supply Point Detail screen within the portal.</li> <li>2) Shipper to provide another RGMA update to close out on estimate read (MDR File) and opens on actual read via DLC (for the correct date). The Shipper may need to speak to the DMSP to obtain the DLC Reads for the exchange date (Opening Reads).</li> </ol>

#### 4.4.10 Previous meter read is greater than the current read and RTC indicator is zero

Description:	<p>When a read is submitted via the DLC, UKLink compares this read to the last actual read in UKLink. Where the last actual read is greater than the read in the DLC file the system expects an RTC indicator. If the RTC indicator is not provided the system will reject the DLC record with the rejection reason "Previous meter read is greater than the current read and RTC indicator is zero" for the Non-Billable Device (i.e. a meter where a corrector is present).</p>
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Possible Root Cause:	<ol style="list-style-type: none"> <li>1) Device exchange has occurred on site that has not been reflected in UKLink but the DLC reads that are being submitted are from the new device.</li> <li>2) RGMA update has been carried out on UKLink but the Opening Reads are not in line with the DLC readings (e.g. estimated).</li> <li>3) Physical Site Visit has taken place to re-configure the devices on site but a Site Visit has not been processed via the portal by the DMSP to re-align the readings on UKLink.</li> </ol>
Resolution:	<ol style="list-style-type: none"> <li>1) Shipper to submit an RGMA update to exchange/update the device(s) on UKLink to reflect the device updates on site to align them to the DLC records.</li> <li>2) Shipper to provide another RGMA update to close out on estimate read (obtained from MDR File) and opens on actual read recorded in the DLC file (for the correct date). The Shipper may need to speak to the DMSP to obtain the DLC Reads for the exchange date (Opening Reads).</li> <li>3) DMSP to submit a Site Visit via the portal to reflect the new read position.</li> </ol>

#### 4.4.11 Incorrect round the clock indicator provided

Description:	The rejection reason of 'Incorrect round the clock indicator provided' comes as a pair with 'Reading Breached Lower Outer Tolerance' when the calculated energy on the billable device creates a negative consumption for the period i.e. the DLC reads are lower than the last actual in UKLink.
Possible Root Cause:	<ol style="list-style-type: none"> <li>1) Round The Clock (RTC) count is missing. If the meter has made a complete revolution of the dials between readings, the new reading will be lower than the previous. The term Round the Clock (RTC) refers to the number of times the meter or convertor has gone "through the zeros" (TTZ).</li> <li>2) RGMA update has been carried out by the Shipper but the readings used do not relate to the DLC reads.</li> <li>3) Site visit not processed after re-sync meaning the submitted DLC read is not in line.</li> </ol>
Resolution:	<ol style="list-style-type: none"> <li>1) Update DLC file to include the correct RTC count.</li> <li>2) Shipper to provide another RGMA update to close out on the estimated read (obtained from the MDR File) and open on actual read from DLC (for the correct date). The shipper may need to speak to the DMSP to obtain the DLC reads for the exchange date (Opening reads).</li> <li>3) DMSP to submit site visit via the Portal to reflect new read position.</li> </ol>

**4.4.12 Convertor serial number is not associated with the MPRN**

Description:	Validation added as part of Nexus states that the Corrector Serial Number (CSN) in the DLC record should match the CSN held on UKLink for the specified MPRN, where they do not match the rejection reason "Convertor serial number is not associated with the MPRN" is provided.
Possible Root Cause:	<ol style="list-style-type: none"> <li>1) The MAM has exchanged the corrector or amended the CSN on site with the Shipper updating UKLink without the DMSP being informed to amend their system accordingly, leading to the CSN on the DLC file to be incorrect.</li> <li>2) The DMSP have amended the CSN on advice of the MAM or following their own Site Visit that has not yet been reflected on UKLink via the Shipper, leading to the CSN on UKLink to be outdated.</li> <li>3) Both systems (UKLink &amp; DMSP) have updated the CSN following a Site Visit but one of them has misinterpreted the written CSN (e.g. B instead of P), leading to both not matching.</li> <li>4) There is no corrector installed on UKLink but a Corrector Read has been provided on the DLC record.</li> </ol>
Resolution:	<ol style="list-style-type: none"> <li>1) DMSP to amend the CSN on their system (may need a Site Visit to confirm details) that will flow into the DLC file rectifying the mismatch.</li> <li>2) The Shipper needs to submit an RGMA update to correct or exchange the corrector to match the details agreed to be on site.</li> <li>3) Shipper &amp; DMSP to agree a correct interpretation of the CSN and correct as above where necessary.</li> <li>4) Shipper to install corrector via RGMA or the DMSP to stop sending in a Corrector Reading in on the DLC record.</li> </ol>

**4.4.13 MPRN is not identified as class 1 site**

Description:	All Class 1 sites require the readings to be submitted on a DLC file from the DMSP. Where an MPRN is not a Class 1 site in UKLink and a read is received on the DLC file, the rejection "MPRN is not identified as class 1 site" will be generated.
Possible Root Cause:	<ol style="list-style-type: none"> <li>1) Shipper has intentionally confirmed the site as something other than a Class 1 (Class 2-4) and the DMSP has yet to process the GCC file in their system.</li> <li>2) Shipper has accidentally confirmed the site as something other than a Class 1 (Class 2-4).</li> </ol>

Resolution:	<ol style="list-style-type: none"> <li>1) DMSP to process the GCC file on their system and stop sending in DLC records into UKLink for the specified site.</li> <li>2) Shipper needs to re-confirm the site as a Class 1 for the DLC reads to flow into UKLink for the specified site.</li> </ol>
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#### 4.4.14 Meter does not exist

Description:	The “Meter does not exist” rejection occurs where the submitted DLC record for an MPRN attempts to validate the submitted meter read but no meter is installed in UKLink.
Possible Root Cause:	<ol style="list-style-type: none"> <li>1) Shipper has removed the devices from UKLink in preparation to withdraw from the MPRN.</li> <li>2) Shipper has removed the meter in preparation to re-install as an alternative to an exchange.</li> <li>3) Greenfield site confirmed as a Class 1 but no devices are yet to be installed but DMSP have processed the GCC file and started sending reads in via the DLC file.</li> </ol>
Resolution:	<ol style="list-style-type: none"> <li>1) DMSP to contact the Shipper to confirm their intention and update their system accordingly to stop sending in the DLC record, or the DMSP to process the received GCC file that is sent in advance of a Shipper withdrawal.</li> <li>2) Nothing, DMSP to continue to submit readings, but it is advised to contact the Shipper to discuss the possible need to carry out a Site Visit to re-align the details.</li> <li>3) Shipper to process the installation of the Meter via RGMA.</li> </ol>

#### 4.4.15 Incorrect Imperial/Metric indicator provided

Description:	Validation added during NEXUS requires the Imperial (I) or Metric (M) indicator, also known as Unit of Measure (UoM), to be aligned to the set-up that is held on UKLink for the billable device. Where they do not align, the “Incorrect Imperial/Metric indicator provided” rejection reason is generated.
Possible Root Cause:	<ol style="list-style-type: none"> <li>1) Shipper has carried out an RGMA update to amend the UoM on the device that no longer matches the submitted DLC record.</li> <li>2) DMSP have amended their system for the UoM and in turn the DLC record, following a Site Visit that no longer matches with UKLink.</li> <li>3) This may indicate a Data Migration issue where the UoM on the corrector was determined by a migration rule between the Reading Units and Reg Factor from legacy UKLink leading to the Meter and Corrector having different UoM.</li> </ol>

Resolution:	<ol style="list-style-type: none"> <li>1) DMSP to confirm with the Shipper the correct set-up and amend their systems accordingly (may require a Site Visit to confirm details).</li> <li>2) Shipper to confirm with the DMSP to correct set-up and amend their system accordingly and send in an RGMA to update UKLink.</li> <li>3) DMSP to contact the Xoserve Help Desk and raise a ticket. Request assistance in identifying if this is a migration issue and if so, resolution advice will be provided.</li> </ol>
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#### 4.4.16 MPRN not live in system (dead or extinct)

Description:	The rejection “MPRN not live in system (dead or extinct)” is provided when the Meter Point Reference Number on the DLC record does not relate to a Live (LI) MPRN on UKLink.
Possible Root Cause:	<ol style="list-style-type: none"> <li>1) The MPRN on UKLink has been set to the status of Dead (DE) or Extinct (EX) correctly.</li> <li>2) The MPRN on UKLink has been set to the status of Dead (DE) or Extinct (EX) incorrectly.</li> </ol>
Resolution:	<ol style="list-style-type: none"> <li>1) The DMSP to action the GCC file to amend their system to update the status of the site so that reads are no longer submitted via the DLC file (may require a site visit to remove the logger equipment).</li> <li>2) Shipper to raise an ISO contact via CMS to get the MPRN re-set to Live (LI) to allow the DLC readings to be accepted (<i>guidance for raising CMS contacts can be found in Appendix 4.5</i>).</li> </ol>

#### 4.4.17 Daily Read Equipment does not exist

Description:	Where the DMSP submits a DLC record for an MPRN and there is no data logger installed on UKLink for the date of the read being submitted the rejection of “Reading equipment does not exist” is provided.
Possible Root Cause:	<ol style="list-style-type: none"> <li>1) New Class 1 site has been confirmed by the Shipper but no data logger has been installed yet to facilitate the flow of readings.</li> <li>2) Shipper has removed all devices (that then automatically removes the data logger), then re-installed the devices excluding the data logger.</li> </ol>
Resolution:	<ol style="list-style-type: none"> <li>1) DMSP to carry out Site Visit to install DRE on site and then install a data logger onto UKLink via the portal.</li> <li>2) DMSP to re-install the data logger to match the date of the new device installs onto UKLink via the portal.</li> </ol>



## 5 Areas for improvement

### 5.1 Asset Updates (RGMA)

For any asset updates (i.e. exchange, fit or removal) an **ONJOB** should be submitted. The read is a mandatory field and is subject to validation in UKLink. Final closing and/or opening reads must be populated and must be from the date of the asset update. If the read is absent on the ONJOB, the file will reject.

*Please note that Final Readings are subject to tolerance check. However, these are done against the last Site Visit Read present in UKLink and not the last actual reading.*

#### Useful links

Further guidelines can be found within the [RGMA Treatment Document](#) folder of the UK Link Documentation on Xoserve.com

Diagram to display the [ONJOB Hierarchy](#) which also defines the mandatory and optional fields.

As a reminder, an ONUPD file should only be used for corrective device exchanges where no physical activity has been carried out on site. Please refer to the [ONUPD Hierarchy](#) for further guidance.

### 5.2 Site Visits

Reads associated to a Site Visit undergo the same validation as daily reads. However, it uses the last Site Visit read rather than the last actual read. If the tolerance is breached between the Site Visit reads (check to check), the read will be rejected. An RGMA flow and class change readings are also considered to be site visit reads.

### 5.3 Class Changes

Where a site has moved from a Class 1 in UKLink but the DMSP continues to submit reads via the DLC file, rejections will occur. A GCC file is sent from UKLink to the DMSP informing them of any changes to the Class 1 site. This is to allow them to action accordingly in their system to stop sending in DLC readings. Therefore, rejections associated with Class Change can just be a timing issue and the associated rejection is just a prompt to the DMSP that this action is outstanding.

### 5.4 CMS Contacts

Some resolutions require contacts to be raised via CMS. Guidance on what type of contacts can be requested and how to raise them can be found at the below link on Xoserve.com; <http://www.xoserve.com/index.php/our-systems/contact-management/contact-management-service-guides/>

## 5.5 Reading Units and Reg Factor

### 5.5.1 Reading Units

Reading Units are applied to the device readings to correctly calculate consumption. Without the correct Reading units being applied the calculated consumption will not be correct. As there are restrictions on the allowable dial counts for reads and sites require large volumes to be consumed, the factors assist in enabling large consumptions to be set-up without the need for larger and larger dial counts.

Reading Units = **10,000**

Read A: **001000000**

Read B: **001000100**

Read A - Read B = **100** (low consumption on its own)

Read A - Read B = 100 x Reading Units (10,000) = **1,000,000**

Without the Reading Units in the consumption calculation the difference between the readings alone will not accurately calculate actual consumption.

### 5.5.2 Reg Factor

Reg Factor is applied to devices Unit of Measure (UoM) to calculate the required Reading Units. Post Nexus implementation Reading Units are no longer stored in UKLink, but calculated using the Reg Factor and UoM.

Where a device has a UoM of **Metric**, the **Reg Factor** is multiplied by **0** to derive the required Reading Units.

Reg Factor = **10**

Reading Units = **10**

Where a device has a UoM of **Imperial** the **Reg Factor** is multiplied by **100** to derive the required Reading Units.

Reg Factor = **0.1**

Reading Units = **10**

The calculated Reading Units are then applied to the readings to calculate actual consumption.

<u>Imperial</u> Reg Factor	Conversion	Reading Units
<b>0.01</b>	x 100 =	1
<b>0.1</b>	x 100 =	10
<b>1</b>	x 100 =	100
<b>10</b>	x 100 =	1000
<b>100</b>	x 100 =	10000

<u>Metric</u> Reg Factor	Conversion	Reading Units
<b>1</b>	x 0 =	1
<b>10</b>	x 0 =	10
<b>100</b>	x 0 =	100
<b>1000</b>	x 0 =	1000
<b>10000</b>	x 0 =	10000



## 5.6 Meter Read Tolerance Ranges

The below table defines the tolerances applicable to Class 1 and 2 Meter Points - Daily Read Received Following an Actual Read (at the time of publication of this document);

Lower AQ Band	Upper AQ Band	Read Accepted without Tolerance flag	Read Accepted with Tolerance flag	Read Rejected
0	1	0% - 2000000% of SOQ	> 2000000% - 7000000% of SOQ	> 7000000% of SOQ
2	200	0% - 10000% of SOQ	> 10000% - 25000% of SOQ	> 25000% of SOQ
201	500	0% - 4000% of SOQ	> 4000% - 10000% of SOQ	> 10000% of SOQ
501	1000	0% - 2000% of SOQ	> 2000% - 5000% of SOQ	> 5000% of SOQ
1001	5000	0% - 400% of SOQ	> 400% - 2000% of SOQ	> 2000% of SOQ
5001	10000	0% - 200% of SOQ	> 200% - 500% of SOQ	> 500% of SOQ
10001	20000	0% - 150% of SOQ	> 150% - 400% of SOQ	> 400% of SOQ
20001	73200	0% - 300% of SOQ	> 300% - 600% of SOQ	> 600% of SOQ
73201	732000	0% - 250% of SOQ	> 250% - 550% of SOQ	> 550% of SOQ
732001	2196000	0% - 200% of SOQ	> 200% - 500% of SOQ	> 500% of SOQ
2196001	29300000	0% - 150% of SOQ	> 150% - 450% of SOQ	> 450% of SOQ
29300001	58600000	0% - 100% of SOQ	> 100% - 400% of SOQ	> 400% of SOQ
58600001	999999999999999	0% - 100% of SOQ	> 100% - 350% of SOQ	> 350% of SOQ

The table is as per **pages 15 and 16 of the Uniform Network Code Validation Rules** document which can be found at the following address:

<https://www.gasgovernance.co.uk/sites/default/files/ggf/Network%20Code%20Validation%20Rules%20v3.0.pdf>

## 5.7 Viewing supporting data on the Xoserve Portal

The Xoserve Portal should be utilised for the investigation of rejections.

For Class 1 sites the DMSP should be able to view the last 50 days' worth of read and consumption through the meter reading enquiry screen. DMSPs will continue to have access to the portal for 5 days after a site has changed from a Class 1 (to Class 2, 3 or 4) to allow them to carry out their within closeout actions.

For further guidance on the portal screens available to DMSPs and Shippers, please refer to the e-learning which is available from the UK Link Information Library.

<http://www.xoserve.com/index.php/our-change-programme/uk-link-programme/uk-link-programme-workstream-updates/uk-link-information-library/>

Once in the library, navigation to the e-learning is as follows;

**Shippers:** UK Link Information Library > Resource Lists > Shippers > Shipper Table of Resources 3 of 3 > Shipper Portal Screens Walkthrough

**DMSPs:** UK Link Information Library > Resource Lists > DMSPs > DMSP Table of Resources 3 of 3 > DMSP Portal Screens Walkthrough

## 5.8 Communication between Shippers and DMSPs

Increased and more proactive communication between Shippers and DMSPs could help drive down read rejections, lower periods of estimation and provide knowledge sharing to further understand why UKLink is estimating DM readings. Examples of these scenarios are provided below.

- i. UKLink will estimate where a Class 1 site has no contract in place with the DMSP (this is seen when no DLC reads are being submitted by the DMSP)
- ii. Rejections are only sent to the DMSP and only if they have submitted the read via the DLC File. If no DLC file has been sent, no rejection will be provided. However, the Shipper will still receive the estimate read regardless (if it's under contract) so that's why we encourage DMSPs and Shippers to open lines of communication to cover all potential scenarios.
- iii. There have been scenarios where the DMSP has confirmed there is no data logger on site but UKLink has not been updated to reflect this. Discussions can be had to prompt the Shipper to withdraw from site to limit impacts on Gemini, deeming and UIG.
- iv. If the Shipper notices there has been an estimate read, they should proactively contact the DMSP to understand the reason for the estimate and decide who should take responsibility to resolve. Please note this may require joint action so ownership should be on both parties.

## 6 Appendix: Glossary of acronyms

<b>Acronym</b>	<b>Description</b>
<b>AQ</b>	Annual Quantity
<b>CMS</b>	Contact Management System
<b>CSN</b>	Corrector Serial Number
<b>DE</b>	Dead
<b>DLC</b>	Daily Read Equipment Read File (File Format)
<b>DM</b>	Daily Metered
<b>DMSP</b>	Data Management Service Provider
<b>DRE</b>	Daily Read Equipment
<b>GCC</b>	Generic Change Comms to DMSP (File Format)
<b>LI</b>	Live
<b>MDR</b>	Daily Data Logger Reads File (File Format)
<b>MPRN</b>	Meter Point Reference Number
<b>RPA</b>	RPA DM Reading Files DLC (File Format)
<b>RTC</b>	Round The Clock
<b>SOQ</b>	Supply Offtake Quantity
<b>TTZ</b>	Through The Zeros
<b>UIG</b>	Unidentified Gas
<b>UoM</b>	Unit of Measure