

Quidos

Title: Quidos L5 NDEA Quality Assurance Audit Process
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Issue: V1
Issued By: Neal Gascoine **Date:**
Approved By: David Jones **Date:**

Revision History

| Issue | Issued | Approved | Reviewed |
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1 Procedure Summary

| | |
|--|---|
| <p>1.1 Process objectives and background</p> | <p><u>What</u> The objective of this process is to outline the approach employed to audit individuals who accredited to L5 NDEA status with the scheme.</p> <p>This is a Time Critical Process (TCP) and therefore will always have priority over other non-time critical work. This is due to the schemes obligations under the Scheme Operating Requirements (SOR).</p> <p><u>Why</u> The process has been created by identifying the requirements within the SOR and is being implemented to ensure that we meet our obligations under the relevant EPC strand SOR requirements regarding the Quality Assurance of Assessors accredited with the scheme.</p> |
| <p>1.2 Key output(s)/result(s)</p> | <p>There are a number of results identified within the SOR relating to the auditing of EPCs produced by accredited members;</p> <p>The overriding requirement is that we audit EPCs in line with the processes specified in the relevant SOR document. The process is intended to ensure that we audit all critical inputs identified within the SOR and have an audit log file to “record” audit findings/tasks.</p> |
| <p>1.3 Scope</p> | <p><u>In scope</u> The scope of this document identifies the individuals that should be audited and the recording/feedback process.</p> <p><u>Out of scope</u> This document does not cover the process of identifying “which EPC/Assessor” to audit nor any outcomes associated with the additional processes once an EPC/Assessor passes or fails an audit.</p> |
| <p>1.4 Process trigger</p> | <p><u>Internal triggers</u> This process is triggered by the monthly EPC audit selection process.</p> |
| <p>1.5 System dependencies</p> | <p>Access to the relevant 3rd party software package used by the EA in certificate generations required. Access to the individual being audited place of work and evidence package associated with the chosen audit.</p> |
| <p>1.6 Other procedure dependencies</p> | <p>This process is dependent on the audit selection process</p> |
| <p>1.7 Regulatory/legislative requirements</p> | <p>As defined within the relevant L5 strand SOR.</p> |
| <p>1.8 Specialist knowledge or qualifications required</p> | <p>Strand specific specialist knowledge is required for L5 software, conventions and methodology. Auditors need to ensure they identify any conflict of interest back to the audit controller where applicable.</p> |

| | |
|--|--|
| 1.9 Authorisation autonomy and | Quidos EPC administrators or Audit staff to ensure access to secure systems. Relevant identified contractors where applicable. |
| 1.10 Turnaround standards | Turn round times dictated by the SOR requirements of reporting work flow for each month with the restriction of EA time frame for supplying data. |
| 1.11 Record Keeping | For the reporting process need to ensure that all spreadsheets are updated in real time and that audit findings are recorded to the audit portal pages as work is completed Additionally audit feedback and any corrective action needs to be captured and given to the relevant EA. This is achieved by the auditor feeding back initial findings to the Assessor while on site and forwarding completed findings for follow up to the QA Manager, who will complete the feedback process by notifying the EA. |

1.12 Procedure Review History

Procedure Number: QQAS004

Procedure Name: L5 NDEA Quality Assurance Audit Process

| Details of areas changed / reviewed | Who completed the changes / review | Who signed off the changes / review* | Date |
|--|---|---|-------------|
| Initial process development | Neal Gascoine | | |
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2 Procedure

Trigger: Audit EPC

2.0 Verification of DCS software competency

Auditor will check that the assessor can prove they are competent to use the relevant DSM software to produce L5 assessments. This is conducted by questioning of the EA relating to the use and functionality of the DSM software. This will be recorded within the Audit log and feedback provided to the EA

2.1 Check Software Conventions competency

Auditor will check that the assessor is up to date with current conventions and able to implement and apply the convention within the DSM software. QAA will select 4 conventions from current convention document and have assessor implement them within the software. The conventions to be queried with the EA will be selected based on the most recently updated conventions first, then randomly selected as required. The EA will then be required to show how the convention is implemented within the software. The outcomes of this will be recorded within the Audit log and feedback provided to the EA.

2.3 Code of Conduct Check

Auditor will check the EA is following of the code of conduct and that their operating processes follow the code of conduct. The outcomes of this will be recorded within the Audit log and feedback provided to the EA.

2.4 Check 'Data collectors'

Auditor will check that the use of any data collectors within the EAs process follows the guidance set out by DCLG regarding their use. 'Data Collectors' being defined as anyone who assist the EA in the collection of data, and entry of data into the DSM software.

Auditor will check to ensure that the EA has policies/processes in place to govern the use of data collectors. Auditor will also check that the competency of any data collector is recorded and follows DCLG guidance.

Additionally the use of data collectors is recorded against any specific EPC so that they use of and which individuals have been involved with any data collection is clearly identified. The outcomes of this will be recorded within the Audit log and feedback provided to the EA.

2.5 Evidence check

Auditor will check that the EA can provide evidence that both meets the requirements as specified in section X (insert ref here) and that it is sufficiently detailed to enable the EPC to be replicated without reference to the software. Additional checks regarding the specific evidence provided are identified in the Audit log and should be completed as part of the audit. The outcomes of this will be recorded within the Audit log and feedback provided to the EA.

2.6 Check methodology and interpretation

Auditor will check the EPC against a number of points to confirm the application of methodology and interpretation of conventions. The Auditor will record findings in the Audit log against the specific sections outlined and in line with the allowed variances and error criteria (see appendix X – to be confirmed). The outcomes of this will be recorded within the Audit log and feedback provided to the EA.

2.7 Identified discrepancy

Auditor will identify errors and discrepancy in line with the margin identified within the SOR. The errors identified fall into a number of categories (ref table 1) and the accuracy of the EPC is classed as the absolute sum of any BRE errors identified by the Auditor and fall within being either less than 10% of the BRE or within

5KgCO₂/m² of the EPC calculated by the Auditor to pass the accuracy criteria. The outcomes of this will be recorded within the Audit log and feedback provided to the EA.

2.8 Audit outcome

Once the audit has been completed, the Auditor will provide initial feedback to the EA and provide the completed audit log and feedback outcomes to the Audit Manger to complete the feedback process to the EA and record details in the relevant reporting systems.

3 Detailed Audit Approach

This section covers the specific on site audit approach to be taken when auditing a L5 EPC and outlines the checks that must be completed to comply with the requirements set out in the SOR. The Audit log covers these area and the recording requirements.

3.1 DSM Software

The Auditor needs to check that the EA can provide evidence that they are competent to use software being implemented on site. The outcomes of this will be recorded within the Audit log and feedback provided to the EA.

3.2 Software Conventions

The Auditor will check while onsite that the EA has implemented any software specific conventions issued by the software provider and that they are following the Non domestic conventions correctly.

This will be achieved by the Auditor checking at least 4 of the recent conventions and that they have been correctly applied in the EPC being audited. Where there are no relevant conventions within the project, then the Auditor will check that the EA can implement the chosen conventions in the DSM environment.

The Auditor will allow the EA to refer to documentation regarding the convention as part of this check process. The outcomes of this will be recorded within the Audit log and feedback provided to the EA.

3.3 EPC Check & Supporting evidence

This section covers the actual process and check points for the EPC and evidence being audited by the Auditor while on site with the EA.

3.3.1 DSM implementation

The Auditor will check that the EA has been implementing conventions and methodology correctly. To verify this the EA will walk the Auditor through the DSM project to ensure that the evidence and calculations have been applied correctly against the current conventions and that there is evidence available to support the decision making process associated to the project. This is achieved by checking the following points and the outcomes of this will be recorded within the Audit log and feedback provided to the EA;

- a) Check that zoning is appropriate for the project
- b) Check that all global values confirm with the evidence and any conventions that would apply. Working through all global values, amending each incorrect global value and conducting a calculation each time one is identified. Any variance is then noted against the BER as an absolute value. Then the calculation is returned to the original value and repeated for any other incorrect global values identified.
- c) Check a sample of at least 10 zones and that data entry is in line with convention and supported by the evidence package associated with the EPC.
- d) Record any changes in EPC and BER that errors identified above may have caused and the likely EPC and BER from the true data entry that the Auditor would have expected after identifying the errors.

Errors identified will be classified according to the criteria set out in Appendix 5 Table 2 of the SOR, which is summarised in – Insert ref here –

3.3.2 Supporting Evidence

The Auditor will check that the supporting evidence is sufficient to confirm the data entry and that it meets the minimum requirements as set out in – insert ref here -. The

outcomes of this will be recorded within the Audit log and feedback provided to the EA.

3.4 Code of Conduct

The Auditor will check that the EA maintains a complaints record and a complaints process outlining how they are dealt with. Also if any complaints have been passed to the Scheme. Additionally the Auditor will confirm that the EA understands what a complaint is in the context of the EPB regulations. The outcomes of this will be recorded within the Audit log and feedback provided to the EA.

3.5 Conflict of Interest

The Auditor will check that the EA understands what a 'conflict of interest' consists of and if they have had any instances of this in their business dealings. Additionally any processes or procedures for dealing/recording of these instances. The outcomes of this will be recorded within the Audit log and feedback provided to the EA.

3.6 Data Storage

The Auditor will check that the EA has a process in place to ensure that data is stored in a safe and secure manor and that this process is being followed. This will be achieved by viewing any process control documents and reviewing the audit EPCs data actually in the storage process. The outcomes of this will be recorded within the Audit log and feedback provided to the EA.

3.7 Data Collectors

The Auditor will check that the EA has in place a policy and process for instances where data collectors have been used in the production of any EPC certificates. Where identified by the Audit Manager additional check may be undertaken relating to the oversight of the data collectors used, this will be identified to the Auditor before attending site. The outcomes of this will be recorded within the Audit log and feedback provided to the EA.

4 Classification of EA errors

While auditing the specific EPC identified for audit, the Auditor must identify and classify errors found via the above audit methodology. The severity of the errors found when auditing defines if the EPC audit should be classed as a failure or not.

Any of the following circumstances shall lead the Auditor to classify the EA audit as a failure.

- a) More than 6 'minor' errors,
- b) More than 2 'significant' errors,
- c) One 'significant' error and 4 or more 'minor' errors,
- d) 2 'significant' errors and 2 or more 'minor' errors,
- e) One or more 'major' errors.

Table 1.

| Specific Check | Classification of errors | | |
|--------------------|--|--|---|
| | Minor | Significant | Major |
| | Audit is assessed as a failure if there are more than three 'minor' errors, or one 'significant' error and two 'minor' errors | Audit is assessed as a failure if there are two or more 'significant' errors | Audit is assessed as a failure if there are any errors classed as a 'major' error |
| Conventions | Classed as an error where the EA is aware of conventions, but cannot produce a copy of current version when asked, but evidence of conventions being applied when auditing EPC, and/or impression that conventions will be applied in future | Classed as an error where the EA is aware of conventions but misunderstood the implementation within the software which has a material impact on the EPC | Classed as an error where the EA is unaware of conventions and is not able to evidence the application of conventions being applied |
| EPC Checks | Some minor failures of data entry, which by themselves have a minor impact when measured against the criteria outlined in 2.7 above | Evidence of partially incorrect data entry that has a major impact on the EPC when measured against the criteria outlined in 2.7 above | Date entry or measurement errors are such that the EPC is judged defective when measured against the criteria outlined in 2.7 above |

5 EPC Accuracy and Checking methodology

As part of the EPC accuracy and checking methodology the EPC will be checked against the criteria outlined in 2.7 above. In doing so the following checks will be applied by the Auditor as a means of confirming that the accuracy is within the given guidelines. *'The accuracy of the EPC is classed as the absolute sum of any BER errors identified by the Auditor and fall within being either less than 10% of the BER or within 5KgCO2/m2 of the EPC calculated by the Auditor to pass the accuracy criteria.'*

The methodology and approach taken by the Auditor when checking the EPC to the above accuracy criteria is as outlined below.

The Auditor shall;

- a) Ask the EA to talk through the evidence, data entry and assumptions associated with the EPC being audited.
- b) Review the evidence to confirm that it meets the minimum evidence requirements (insert ref)
- c) Review all the global values, checking that all conventions which apply to the DSM and the EPC have been followed and applied correctly.
- d) Work through all global values. Where a different value would have been used, request the DEA to amend the value and calculate what impact this has on the BER. The value is then returned to the original value used. This is repeated for all global values and each discrepancy noted.
- e) After reviewing the global values the Auditor forms an assessment of the most critical zones within the building.
- f) The EA shall then amend all global values in line with the Auditors instructions. Then the Auditor will review at least 10 zones within the building for impact. The most critical zones being reviewed first. Critical in this case being those zones identified where a data entry error is expected to have the most impact. For each zone where the Auditor would use a different value the value is changed and the difference created by the change in the BER is recorded as an absolute value. All differences in the BER shall be recorded separately as an absolute value to those differences associated with the global values.
- g) For the zones checked, calculate the cumulative treated floor area of those zones (TFA of sampled zones). This is then compared to the total floor area of the EPC (TFA of EPC). An escalation factor (F) is the calculate by dividing the Total floor area of the EPC by the Total floor area of sampled zones.

$$\text{TFA of EPC} / \text{TFA of Sampled zones} = F$$

The auditor will then multiple the cumulative BER errors associated with all zones sampled by F from above. If this error plus any error associated with the global values is outside the accuracy limits specified in 2.7 above the EPC shall be deemed to be defective. The outcomes of this will be recorded within the Audit log and feedback provided to the EA.

- h) If any of the changes identified above cause the recommendations associated with the EPC to change, then the EPC will be deemed defective. The outcomes of this will be recorded within the Audit log and feedback provided to the EA.

- i) The sampling identified above is a minimum acceptable approach. Auditors may apply additional sampling up to 100%. This is used to establish if an error identified in one zone is a singular occurrence or if it has been replicated within other zones. If this error is found to occur in 45% or more of zones then the escalation factor will be applied. Where the error is found to occur in less than 45% of zones in which a similar error may occur, then the Auditor may make a judgment that the escalation factor may not be applied. Any zone where the error is found to have been repeated will be treated as a cumulative error when calculating the outcome of the audit.

6 Evidence requirements

6.0 Evidence requirements

EAs are required to provide access to all evidence required by the Auditor to allow the EPC to be audited. The level of information required is such that it allows an independent Quality Auditor to undertake an audit in line with the Scheme Operating Requirements.

The evidence provided must be such that the Auditor can be certain it relates to a particular EPC

The Auditor will record within the audit log files the evidence given and the quality and relevance of the evidence provided to back up the EPC audited.

The over-riding principle is that the EA shall be able to demonstrate that the evidence provided is of sufficient quality and detail to enable thorough assessment of the EPC being audited.

| Required Evidence | Audit comment |
|---|---|
| Data file, and/or software data collection forms relating to the information used by the EA to calculate the BER and asset rating. This must be sufficient to allow the Auditor to recreate the accuracy of the EPC at each stage of the data entry | As the Auditor is required to recreate/check the accuracy of each data input item. The level of access needs to be the same as used by the EA when creating the EPC calculation in the software. Will include access to any U, L Km and T values. |
| Design Floor Plan, elevations, sections, which allow the EPC to be recalculated | |
| Evidence of zoning | Evidence of zoning will be assessed by an examination of any annotated drawings of the building identifying the zoning. If no documentation is available which provides a summary of the zoning information, sample photos will need to be provided for each type of the zoning used with a cross reference to the zones within the software. |
| Supplementary calculations used by the EA within the calculation and software. | |
| Any evidence used to justify the suppression of inclusion of additional recommendations | Examples would be; <ul style="list-style-type: none"> • Guarantee or Building control certificate for changes or improvements. • Evidence of building age. • MCS certificates. |
| Data Collectors – Statement regarding the use and supervision. | Auditor needs to review and record what areas that data collectors were used on and the oversight approach used to govern the use of said data collectors. This should include the checking of the data collector's competency. |

APPENDIX A1: NDEA L5 EPC Minimum Evidencing Requirements

| Required Evidence | Notes |
|-----------------------------------|---|
| EPC | <i>A copy of the lodged EPC to be provided</i> |
| Software date file | <i>The information shall allow the Scheme to deduce the software (and version) used to produce the EPC.</i> |
| Floor plan | <i>These should be sufficient for the QAA to recalculate the EPC</i> |
| Evidencing of zoning | <i>An annotated drawing of the building identifying the zones. If architectural drawings with references are submitted, these references shall be annotated by titles on the zoning diagram or a copy of the architects references provided. If no documentation is available which provides a summary of what is in each zone, sample photos shall be provided for each type of zone and these shall be referenced against a schedule of what is in each zone.</i> |
| Supplementary calculations | <i>Any supplementary calculations undertaken by the assessor. Solar values, U, L Km and T values</i> |
| Additional evidence | <i>Any other evidence required to justify the suppression or inclusion of an elements inclusion in the calculation, recommendations, or element that will have a bearing on the outcome of the report.</i> |
| Data collectors | <i>A statement of where they have been used, and how supervised, if applicable to the assessment</i> |
| | |