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Beyond the Guide

Section 1

QC Plans and Processes

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Selling Guide D1-1-01

Getting the foundation right is key to any successful endeavor.

Whether building a house or a business, you need plans and specifications, competent workers, satisfactory inspections and tests, and a method to confirm the finished product complies with the original requirements. A successful quality control (QC) program requires defining, documenting, and building the foundational plans, processes, disciplines, and oversight. This ensures it is effective in guarding the lender and its investors against costly gaps in controls.

QC plan content – the framework of every lender's program

The QC plan is the road map that a lender uses to achieve its quality goals. The QC plan needs to state the quality objectives and define plans to achieve them. Fannie Mae's *Selling Guide* specifies the minimum requirements for lender QC plans. When writing its QC plan, a lender should consider its business model, risk tolerance, and investors' requirements.

The QC plan is a working document that should be referenced regularly.

Senior management may encourage frequent use of the QC plan in a few ways:

- Use the plan as source material for periodic operational staff training.
- Tie metrics used in management reporting back to the plan (i.e., compare actual quarterly repurchase costs to target defect rate calculations in the plan to determine any necessary actions).
- Establish regular intervals to calibrate the QC vendor's policies and procedures against the lender's QC policies and procedures to achieve appropriate alignment.
- Use the plan as a guide when developing action plans with operational staff.

Attributes of a strong QC plan

Attribute	Attribute meaning
Written from the lender's perspective	Plan must reflect the philosophy, specific risks, and necessary controls for the lender's unique structure (e.g., channels, geography, staff structure), in addition to ensuring investor requirements are being met.
Use standards, measurements, processes, and procedures that would apply to all loans originated	The plan should define controls for quality without customizing for a specific investor. For instance, sampling methodology should be designed with a primary focus on meeting the *lender's* requirements for testing risk but should also ensure any investor requirements are met.
Structured as guidance intended to be used and understood by internal and external readers	The plan should be easy to understand by staff, management, investors, and regulators. Vague or unnecessarily technical language could cause confusion and reduce the likelihood of the plan's practical use.

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Quality standards – making standards relevant to the business

Having an effective QC plan requires measurements to determine when you are within the plan's objectives and when action is needed to get back on track. A lender must establish three critical quality standards that provide the organization the necessary information to confirm its quality is within acceptable ranges. These standards will also identify any enhancements needed to improve QC results and efficiencies:

Defect classifications (taxonomy)

A method of characterizing defects by category such as credit, employment, income, assets, property, or value — to support root cause analysis.

Defect severity levels

A method to categorize defects based on the impact of the manufacturing error, such as significant/material, moderate, and minor/informational. (The highest level of severity must be assigned to loans with defects resulting in the loan not being eligible as delivered to Fannie Mae.)

Target defect rate

The maximum percentage of ineligible/unsalable loans a lender is financially willing to accept. This metric defines defect percentage and financial impact. Target defect rate requirements apply to a lender's random post-closing sample. Tying these standards to financial exposure provides key performance indicators (KPIs) that executive management should monitor and to which it should respond.

Lenders must document the rationale used to establish their target defect rate.

Defect classification – taxonomy

A *defect taxonomy* is a predefined method of classifying loan-level defects based on their cause or type (i.e., income/employment versus liabilities). Fannie Mae does not require lenders to use a specific taxonomy, but some form of defect categorization should be used to track and trend defects and their root causes. **Fannie Mae publishes its taxonomy**, and QC audit software in the market typically comes with a similar basic taxonomy. Adopting an internal defect taxonomy that aligns with Fannie Mae's defect taxonomy allows you to aggregate multiple sets of different QC results to see a broader view of quality risk for your organization. Whatever taxonomy a lender uses, it must be sufficient to track and trend loan-level defects in all QC reports, identify defect's root causes, and support effective action planning.

Defect severities

Defect severities tell the story of an error and its impact. Fannie Mae requires that the most significant category represents loans that were ineligible for delivery. Most defects can have multiple severities based on their impact to the loan. For example:

Incorrect income calculation – self employed borrower

Finding	Significant defect
Original income calculation was $10,000 per month with a debt-to-income (DTI) ratio of 37%. Corrected income calculation was $9,000 per month with a corrected DTI of 41%. Desktop Underwriter® (DU®) resubmission resulted in an Approve/Eligible recommendation.	Original income calculation was $10,000 per month with a DTI of 37%. Corrected income calculation was $7,000 per month with a corrected DTI of 53%. DU resubmission resulted in an Approve/Ineligible or Refer with Caution recommendation.

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Aggregating the data and trending defects across all severity levels provides insight and understanding of the breadth and scope of the errors, which can highlight potential process failures or control gaps. Having the broader level of information can result in more robust action planning, resulting in higher levels of quality across your organization.

Target defect rate

Sustained loan quality provides a level of certainty to a lender's management team and other stakeholders. Certainty of predictable outcomes is highly valued. Accurate data supports sound credit decisions that benefit homeowners and can help companies meet their financial objectives. This is achieved through metrics established by executive leadership. (A best practice is to tie goal attainment to the company's compensation structure.)

An effective way to establish loan quality targets is to model the financial exposure created at a certain defect level. Any loan with a defect has the potential to result in additional costs ranging from simple rework time costs to repurchase or regulatory costs. Attaining and maintaining a zero-defect rate is aspirational, but realistic targets should be set:

- As low as possible
- Designed to be reduced over time
- Based on financial analysis of costs associated with defective loans
- Evaluated at least annually against updated performance, default, and capital needs
- Used to quantify the risk exposure of defects and drive change

Gross versus net defect rate

Part D of the Fannie Mae *Selling Guide* does not have a requirement related to lenders' use of a gross versus net defect rate; we allow a lender to select the option that is most appropriate for its internal risk view. However, a best practice is for lenders to track both gross and net defect rates with established targets for each one.

- Gross (initial) defect rate is defined as the defect rate based on any initial findings prior to any rebuttal activity.
- Net (final) defect rate is defined as the defect rate based on the final findings after the rebuttal activity is complete.

Why is tracking both metrics important? The gross defect rate is an indicator of the total risk on your book prior to the expense and effort of resolving mistakes that were found. Those mistakes could be as simple as a document misfiled in your imaging system, or a much more significant error where your manufacturing process did not obtain the correct information needed to evaluate the transaction at origination. With the passage of time, obtaining documents from borrowers or reconciling significant analytical errors becomes increasingly difficult.

- A best practice recommendation is to establish a metric that differentiates documents that were misfiled in your imaging system versus documents never obtained so you have a much more granular view of the impact of "missing documents" on your quality risk.

Ask yourself:

- Is our target defect rate evident and understood as a metric of the company's quality?
- Are action plans treated as a proactive, continuous improvement activity, not just initiated if target defect rates are exceeded for multiple periods?
- Do our QC reports reflect the potential cost of elevated defect rates?
- Do we understand the difference between gross and net defect rates and have actions to improve both?

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Modeling example

Consider the following illustration of the defective loan impact at different target defect rates:

Critical defect rate X loan production in units = repurchase risk		
1% X 2,500/month	=	25 loans/month
2% X 2,500/month	=	50 loans/month
5% X 2,500/month	=	125 loans/month
10% X 2,500/month	=	250 loans/month

If a lender has determined through analysis of previously repurchased loans an average repurchased loan cost, an estimated secondary market risk exposure can be calculated. For this illustration, the lender has observed an average loss of 15 basis points or 0.15% of the loan amount per repurchased loan. Assuming a loan amount of $400,000, the calculation below translates the estimated units above to a monthly dollar exposure:

Lender's average repurchased loan cost = $600 per loan Monthly defective loans X $600 = monthly repurchase financial risk		
25 X $600	=	$15,000/month
50 X $600	=	$30,000/month
125 X $600	=	$75,000/month
250 X $600	=	$150,000/month

Using this example, the annualized defective loan cost could range from $180,000 to $1,800,000 in just repurchase cost risk. Other factors such as projected market cost changes, loss reserve requirements for warehouse lines, and loan pay history, could impact financial risk.

Finally, if the target defect rate is a true model of financial risk as well as a key metric used by management, it would be expected that all management areas – particularly senior management – would know:

1. the target defect rate,
2. the organization's current status in relation to the target, and
3. if not within target, what action is being taken to return within target.

Considerations:

- Include historic loan quality trends combined with future projected production when performing target defect rate analysis to derive a realistic target defect rate.
- Maintain formal documentation of the regular target defect rate assessment.
- Implement action plans if actual defect rates do not align with the target defect rate.

Confident defect rate reporting through calibration

Measurements are only as valuable as their accuracy. Calibration is defined as "the act of checking or adjusting (by comparison with a standard) the accuracy of a measuring instrument (or metric)." Calibration for mortgage lending asks the question "Do two different entities (whether internal or external) review discrepancies the same way?" If not, what are the differences? Why are there differences? What adjustments should be made?

The calibration process helps maintain consistency and repeatability in measurements, assuring accurate and reliable benchmarks. The act of calibrating is an ongoing process that should be performed routinely.

Ask yourself:

- Are our prefunding and post-closing QC review processes performed using the same testing methods?
- Are the same severity levels used in both reviews? If not, why?
- Are our investors (or other reviewers, such as mortgage insurers) finding the same or different defects that we are finding in our QC reviews? If not, why are there differences?

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Tips for successful ongoing QC alignment

- Gather internal review results and investor review results to identify differences in cited defects and severities.
- Track individual defects cited over time by investor and internal results, identify areas where the investor is citing defects that are not found internally, and review to understand why.
- If outsourcing to a vendor, use the lender sampling of the vendor's results as a type of calibration.
  - Calculate and track monthly concur rates from your review sample and discuss with the vendor monthly; monitor trends and know when to act.
- Scrutinize loans that were reviewed in both prefunding and post-closing – assuming they had the same information, were the same defects cited? Perform a similar analysis by auditor.

Examples of combining, tracking, and trending defect calibration results:

Summary table of defect alignment / differences

Example of 33 lender findings reviewed against Fannie Mae results:

- 31 were found consistent with lender Moderate Findings
- 1 was out of scope (Fannie Mae does not test for that defect)
- 1 was a defect, but Fannie Mae would cite different severity

Calibration	Finding	Significant	Grand total
Out of scope	1	1	2
Yes	31	16	47
Yes – severity difference	1		1
Total	33	17	50
Yes accuracy score	93.94	94.12	

Addressing oversight policies for third-party originations in the QC plan

The QC plan must outline the requirements for reviewing a sample of originations from each third-party originator (TPO) at least once annually through the QC process. Lenders with third-party origination channels are responsible for managing loan manufacturing risk that is not always within their immediate control, which requires different forms of diligence than retail origination. The QC plan should outline your strategy for monitoring the loan quality of third-party originations through various QC activities:

QC activity	Policies that impact TPO sampling and loan quality oversight
Prefunding policy (pre-purchase)	The QC plan should include a process to target TPO deliveries in sampling criteria as well as the strategy for adapting QC testing criteria to TPO by type (broker versus correspondent).
Post-closing policy (post-purchase)	The QC plan should address the process to include TPO deliveries in the random sampling methodology as well as the strategy for targeting TPOs consistently in discretionary samples.
Reporting policy	The QC plan should contain a policy requiring monthly QC reporting to include a separate breakout of trending results for each individual origination channel (retail, broker, and correspondent). This approach supports loan quality monitoring activities as well as the strategy for ranking actual defect rates by each TPO channel over time to identify trends.

Consider examples of how these QC activities could be delineated in the QC plan to ensure holistic and strong policy controls for measuring and managing TPO risk.

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TPO prefunding / pre-purchase QC reviews

The QC plan should recognize that QC testing of third-party originations often differs from QC testing protocols for retail originations. QC processes designed for TPO originations must be structured to account for the unique attributes of TPO loan manufacturing processes as well as distinct loan quality objectives. It is required to perform prefunding (pre-purchase) quality control reviews regardless of the type of third-party originations you acquire. Fully closed loans as well as loans that are partially completed by a third party are subject to Fannie Mae prefunding QC requirements.

Considerations:

- Track and trend TPO QC results separate from retail – trends may emerge in either retail or TPO that could reveal different control gaps.
- Use the QC results to formulate a scorecard by channel or counterparty, possibly including other quality metrics such as repurchases, missing documentation, and areas with improvement opportunity.

QC vendor management

Choosing to outsource certain QC functions to vendors can be an effective way of managing limited resources. Lenders that use this option successfully understand that outsourced QC functions must be managed as closely as internal staff and include oversight of the vendor like any third-party vendor contracted by your company. Lenders retain responsibility for the final work and that work's compliance with Fannie Mae requirements. This oversight responsibility includes loan-level testing of at least 10% of the vendor's work and assignments.

Lender responsibilities

Confirm and incorporate

- Ensure vendor's staff is qualified and experienced
- Confirm vendor's policies and procedures align with lender and investor requirements
- Fully incorporate vendor's results into lender's reporting and remediation process

Test and verify

- Review vendor's work monthly (minimum 10%) for accuracy/completeness
- Include loans with defects and no defects
- Lender must perform file reviews – cannot contract out

Review and report

- Include results of vendor review in monthly QC reports
- Describe the review sample selected and concurrence rates
- Detail discrepancies identified by lender's review

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While vendors maintain certain responsibilities as well, it remains the lender's responsibility to ensure an acceptable audit is performed and contractual obligations are met.

Vendor responsibilities

Document and perform

- Maintain policies and procedures
- Comply with lender contract
- Provide timely loan-level reporting results to lender

Ask yourself:

- Have we defined a benchmark for acceptable vendor quality and tested to confirm the vendor is performing as desired?
- Are results of vendor testing discussed with the vendor when discrepancies are identified?
- Do we have a clear escalation path for action if the vendor's work is found to be unacceptable?

Considerations:

- Vendor oversight is a key component of the lender/vendor relationship and requires testing, monitoring, and reconciliation of the acceptability of the vendor's work product.
- Consider what factors may influence changing the scope and scale of QC vendor use and how adjustments to current usage may affect the QC process.
- Understand the data delivery, access, and retention capabilities of the QC vendor's software, including alignment with necessary digital security requirements.

Addressing internal audit and governance of the QC plan

The QC plan must outline the lender's process to perform an independent audit of the QC functional area to ensure the lender's QC staff follows all policies and procedures that govern the QC function. Independent testing is required to confirm that the QC controls in place are adequate to protect the company from risks, that the controls are effective, and that they are compliant with company, regulator, and investor governance requirements.

Addressing requirements to maintain complete QC audit files in the QC plan

The QC plan must include policies that establish standards to ensure that each QC audit file contains a complete record of the entire QC assessment. This documentation must include sufficient evidence of the testing performed, including outcomes, to determine the accuracy of the underwriting decision and ensure compliance with Fannie Mae requirements. An audit file consists of all written and electronic records created as part of the QC review (D1-3-06). The completeness of these files becomes very important when internal or external audits of QC are performed. Failure to provide evidence of complete audit records can result in investor or regulator findings. As with all things in QC, consistent and predictable documentation avoids problems!

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Items that should be part of the basic audit file include:

- Audit review summary document with auditor notes and findings
- All applicable audit checklists
- All reverifications, including reverifications sent/received dates
- Income calculation worksheets
- Audit credit report
- Evidence of collateral risk assessment
- Tax transcripts
- Screenshots of applicable online webpages used during audit

Some QC software programs offer audit review summary forms in their standard report packages, but any worksheet used by the auditor will work. The primary objective is to document what data and documents the auditor reviewed and how they arrived at their results.

Self-assessment opportunities to build a comprehensive QC plan

Taking stock of your current risk controls and adjusting for gaps will strengthen your QC processes and help maintain a healthy risk management program. Fannie Mae has several risk self-assessments that can be leveraged by any size lender to review and improve current risk control systems. Our self-assessments cover a variety of risk controls. Refer to our Resources section for links to these powerful tools.

Resources

How to calculate a defect rate

Selling Guide A1-1-01

Seller/Servicer Risk Self-Assessment

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