Handling of Product Quality Deviations from Suppliers

Contents

Changes from previous issue

The whole standard STD4457 is reworked and suppliers are expected to read the entire STD. The main changes are:

- Title has been changed.
- Logistic deviations have been transferred to STD4172 – Logistic manual.
- Major revision of chapters 5 *Scania Quality Escalation Model* and 6 *Supplier Quality Escalation Team.*

Due to many changes, the changes are NOT shaded or marked in another way.

Introduction

This document describes Scania's expectations and demands on external Organisations regarding deviation handling. It contains a short presentation of the deviation handling process. Important parts of this workflow such as eQuality, Supplier Quality Escalation Team and the Supplier Quality Escalation Model (Critical Supplier Program) are presented together with information where to find more detailed information.

It is demanded from all Organisations supplying to Scania, that concerned people read this document, are aware of Scania's demands and expectations regarding deviation handling and act accordingly.

1 Scope

High product quality and delivery performance are, and will be, key factors for Scania's success in today's and tomorrow's business. Since the Organisations contribute for an important share to the final product and process quality, it is important that Organisations understand Scania's expectations in this process.

- A successful introduction of projects, that follows the quality assurance planning before the introduction conscientiously, is an important prerequisite for a life cycle without problems with the purchased part.
- When deviations occur, Scania considers them as an opportunity and important input for continuous improvement at Organisations side. Scania requires from Organisations high quality of the preventive actions taken to assure that a deviation, caused by the same root cause, cannot occur again.
- The PPM (Part Per Million) level and the numbers of eQuality reports issued to an Organisation (together with target levels when agreed) are used by Scania to analyse and rate the performances in product quality of the Organisations.

This document provides answers to the following questions:

How does Scania handle deviations caused by the Organisation in

- Projects and
- Deviations regarding product/process quality

1.1 Target group

This document is important for all Organisations that (will) deliver parts/components to Scania and are or will be connected to the eQuality system.

The quality contact person within the Organisation is responsible to distribute copies of this document to the relevant persons within the company. These persons can be; people working with projects, customer claims regarding product quality and logistics and the people working with the eQuality system.

2 Terms and definitions

Following IATF16949 terminology the suppliers delivering to the OEM (customer) are called Organisations and tier 2 – n are defined as Suppliers.

3 eQ2 system

The eQ2 system is a web-based system, which connects internal and/or external Organisation users. The system supports processes related to deviation handling, invoicing the related incurred costs, change management and part release for serial production. eQ2 consists of the following modules:

eQuality handles product quality and logistical deviations for zero mileage and mileage caused by external Organisations.

eInternal handles product quality and logistical deviations found on parts/components received from departments or units belonging to the Scania group.

eSCR handles Organisation initiated changes on earlier released products and/or processes and shall be proposed via the Supplier Change Request routine.

eCarrier handles deviations found in the inbound and outbound transportation flows caused by Carrier's licensed by the customer.

ePPAP handles the Production Part Approval Process (PPAP/PPA) between the customer and external Organisations.

eQW (Early Quality Warnings) handle suspected product quality symptoms where external Organisation support and expertise are needed to determine if there is a problem.

eInvoice gives an overview of the costs incurred by the customer, and handles the reimbursement, related to the deviation handling in eQuality.

All information and communication should be added in the English language.

Manuals for each module are stored on Scania Supplier Portal SSP.

4 Handling Deviations Caused by Organisations in serial production

4.1 eQuality for Supplier

Scania’s intention is to continuously reduce the number of disturbances and interruptions due to quality problems in daily operations. To support these activities, Scania introduced a web-based application “eQuality for Suppliers” in which module deviations are reported and the follow up will be made.

The eQuality system contains information like deviation reports (registered on the Organisations), pictures and other attachments, contact persons, statistics etc.

4.2 How to access eQuality

eQuality is only accessible for internal users and for connected external users via the Scania Supplier Portal (SSP https://supplier.scania.com). An Organisation user needs first request access to Scania Supplier Portal (SSP) and then also an account for the eQuality system. Access to SSP and eQuality is managed by the appointed administrator(s) for both systems at the Organisation.

4.3 When and who issue and handle eQuality reports

In each Scania unit that receives purchased parts (Production and Spare Parts), there is staff handling technical and logistical issues reported by operational production or logistical staff. They follow up the progress in issued reports during daily pulse meetings and review, approve or reject answers and proposed solutions from the Organisation.

Deviations are reported in eQuality from the moment Scania owns the parts (usually after pick up from Organisations premises). Also Field Quality issues are reported in eQuality if corrective action is demanded form the Organisation.

The Organisation's facility that received the Scania purchase order, is also the facility connected to the eQuality system and is responsible for the communication with Scania in all eQuality modules. In each issued report, there can be only one part number and symptom at a time being reported.

The issuer of the eQuality report, or for escalated cases the Supplier Quality Escalation assignment leader, is authorised to approve proposed corrective actions after a deviation occurred.

The full responsibility for corrective actions however remains at the Organisation at all times.

A request to submit PPAP documents and Part Submission Warrant (PSW) after deviation handling may be issued via the ePPAP module.

All written eQuality reports are classified according to Scania's Classification Of Deviation (COD). A deviation can be classified in eQuality as Critical, Major or Standard (C, M or S). See the eQuality manual Appendix C.

All customer units issue eQuality reports for deviations found in their own unit. This means that there can be several reports for the same deviation.

If the Organisation has informed the customer that suspected parts are shipped, and the deviation is not found and reported yet by any unit, a report needs to be issued (for traceability and invoicing) but the reported quantity will not be counted as PPM relevant.

In most cases an invoice will be presented to the Organisation for the costs related with the deviation handling and/or the reimbursement for parts, which could not be used.

The communication concerning reported deviations and invoices is with the issuers of the reports (phone number on top of the eQuality report).

4.4 Expectations on the Organisation

Organisation users of eQuality shall check their mailbox at least twice a day, morning and afternoon, for notification mails from the eQ2 system. These mails are sent to all connected users for a module when a report has been issued, updated or closed.

Preventive measures shall be taken to secure that notification messages received from the eQuality system do not end up in the spam manager.

Since the eQuality system is used globally by Production Units and Spare Parts in different time zones and where the holiday periods differ, information about deviations can come to the Organisation continuously. The Organisation is expected to work with, and update the reports without delay, so they reflect the actual status in the problem-solving process continuously.

It should always be possible to reach an Organisation's customer representative by phone for support.

The goal for the Organisation is to re-establish the normal situation, how it was before the deviation started, and remain as close as possible to the original PPAP when presenting your Corrective Action Plan (CAP).

Major process changes shall be addressed for approval in the eSCR module and a sufficient interim solution in the eQuality report has to be provided. The interim solution is needed to make it possible to close the report.

When the Organisation reported in eQuality a credible CAP (which consists of short-term action (STA), root cause (RC) and long-term action (LTA) with an acceptable time schedule for implementation), the case might be closed, unless a confirmation of implementation is demanded.

The PPAP file on site shall always reflect the actual product and process situation. After deviation handling the Supplier Quality Manager (SQM) responsible for the PPAP might ask the Organisation to submit the updated PPAP documents in ePPAP.

Scania's expectations regarding answering eQuality are described in the eQuality manual. The expectations concern e.g.:

- Short Term Action (STA). All 11 questions must be completed satisfactorily. The lead time for answering the STA is 24/48 hours.
- Root Cause (RC). A thorough root cause analysis for the real problem (occurrence) and the missed detection should be executed and the result to be described in the eQuality report using the 5 x Why method. 8D's or other supporting information can be attached. It shall also be shown what was wrong or missing in the PPAP when it concerns a technical issue.
- Long Term Action (LTA). Credible and durable corrective actions with acceptable time lines to implementation (approximately 3 months) to solve the problems and prevent for recurrence should be presented within 10 calendar days.

For the right understanding on both sides, it is recommended to take notice of:

"Code of conduct concerning the communication between Organizations and Scania via the eQuality system".

This "Code of Conduct" can be found on SSP in the listing with user guides concerning the eQuality system.

4.5 Organisation administrator for eQ2

The appointed Organisation administrator for eQuality shall keep the contact information up-to-date at all times with staff members on site where the parts are produced and who have also the authority and responsibility for corrective actions. All these contacts will receive notifications from the eQuality system when reports are issued, updated or closed.

For all modules, there shall be at least one extra person added. For the module eQuality, there shall also be logistical users updated as mail receivers.

To assure the actuality of contact persons and their access in web portals and the eQ2 application, a documented validation routine shall be carried out by the Organisation after relevant staff changes, or at least twice per year, if no staff changes occur. A documented carryover routine for the administrators functions (portal and eQ2) is mandatory.

Organisation users shall log in with their own personal account to SSP and the eQuality system.

5 Scania Quality Escalation Model

The Scania Quality Escalation Model is part of the Volkswagen Critical Supplier Program. It consists of four levels (see Figure 1), Level 3 escalations are managed by Volkswagen "Group Quality Assurance Purchased Parts". Escalation process for logistical issues is described in STD4172 – Scania Logistics Manual.

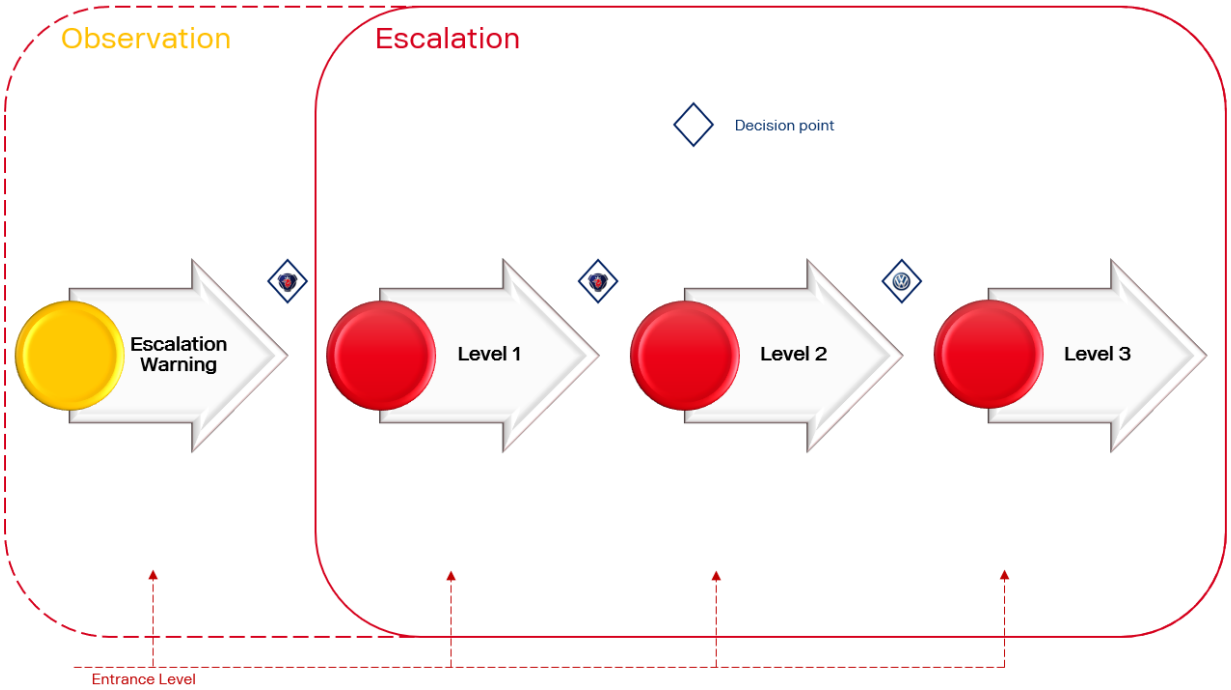

Figure 1 – Scania Quality Escalation Model

During normal daily operation, Scania units handle and close product quality deviations themselves. However when there are deviations from agreed processes and standards the following escalations can occur:

5.1 Escalation Warning (Observation)

When the Organisation is not performing in a satisfactory way in terms of managing deviations, an escalation warning can be issued. The Organisation will be informed by the assignment leader and receive a warning letter, informing the Organisation about expectations and goals to be fulfilled for case closure. An escalation warning can be made if:

1. Actions taken in eQuality report are not satisfactory and are meeting a defined handover criteria. The case will be handled by the Supplier Quality Escalation Team and will be followed up at Organisations production unit and Scania Production Unit (PRU). Criteria's can for example be that timelines for short-term action (STA), root cause analysis (RCA) and long-term action (LTA) have passed without acceptable reason, see Figure 2.

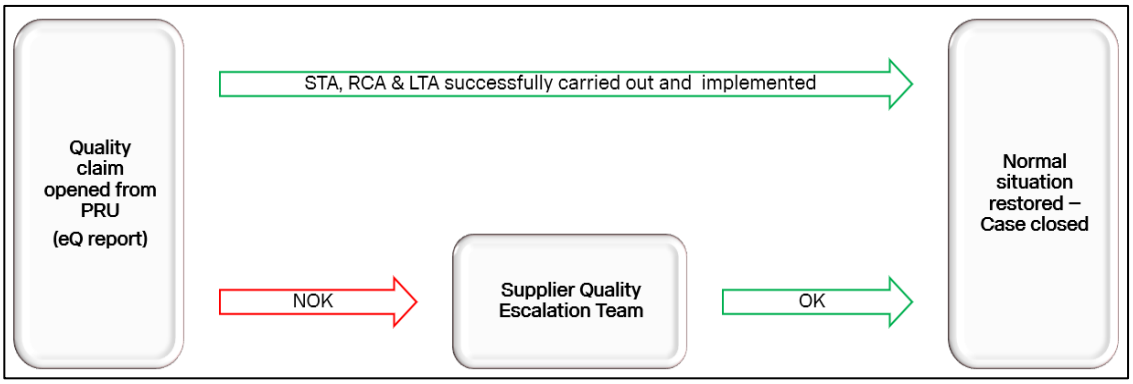

Figure 2 – Quality claims (eQ reports) can be handed over to Supplier Quality Escalation Team

2. There is a risk that performance of an Organisation is not meeting the agreements regarding number of claims (eQuality reports) or PPM. This will be handled by the Commodity SQM.

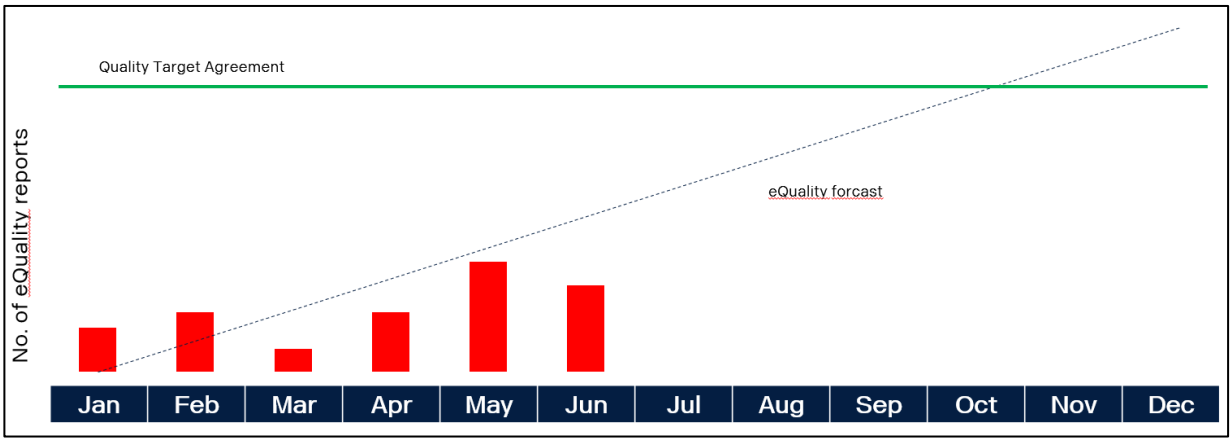

Figure 3 – eQuality forecast for end of the year

5.2 Escalation Level 1

If corrective actions taken in the warning phase are not satisfactory or successful, the Organisation can be escalated to level 1 or if performance of an Organisation is exceeding the agreements in terms of number of claims (eQuality reports) or PPM. An escalation can also be initiated if the Organisation is violating other Scania quality requirements.

The Organisation will be invited for an escalation meeting at Scania to agree upon a Corrective Action Plan (CAP) to solve any open issues. The Organisation is expected to present an analysis and action plan, including Pareto diagram of the failure modes, root cause analysis (5 why, Ishikawa etc.) for each failure mode and step down plan, to restore the normal situation. An escalation letter will be distributed after the meeting including expectations and de-escalation criteria.

These escalations are handled by the Supplier Quality Escalation Team SQM or the responsible Commodity SQM, depending of case origin. Follow up on the individual eQuality reports however remains the responsibility of the issuer.

Various tools can be used to protect Scania from deviations. In applicable situations Scania can demand the Organisation to install Control Shipment Level 1 or 2.

5.3 Escalation Level 2 (C-warning VW Group)

If corrective actions taken in Level 1 phase are not satisfactory or successful the Organisation can be escalated to Level 2. However there are also situations that can directly lead to a Level 2 escalation. For example if Organisation is not respecting the regulation regarding change management, if assignment leader does not get enough attention from the Organisation or the communication is poor/unreliable. Also when problems, which were supposed to be solved, appear again, a Level 2 escalation can be made immediately from daily routine.

The Organisation will be invited for an escalation meeting at Scania to agree upon a Corrective Action Plan (CAP) to solve any open issues. The Organisation is expected to present an analysis and action plan, including Pareto diagram of the failure modes, root cause analysis (5 why, Ishikawa etc.) for each failure mode and step down plan, to restore the normal situation. An escalation letter will be distributed after the meeting including expectations and de-escalation criteria.

5.4 Escalation Step 3 (C-rating)

When the Organisation's performance is still insufficient regarding technical issues, the Organisation will be proposed for a Level 3 meeting conducted by the Volkswagen "Group Quality Assurance Purchased Parts" where a "C-rating" can be decided, meaning new business is on hold for the entire VW group. De-escalation from "C-rating" will be done by the same Volkswagen Group decision meeting.

The Organisation is expected to present all relevant information according to "Guideline for Suppliers for Top-Q Meeting preparation", provided with the invitation for the meeting.

The Organisation shall notify their certifying body within five working days after 'C' rating was given in the Top-Q meeting. The Organisation shall request the certification body to put Organisation's IATF 16949 certificate on suspension immediately. A copy of the notification shall be sent to the assignment leader that is handling the escalation process for Scania.

It applies to all escalations that Scania usually de-escalates Organisations back to the daily routine when the Organisation has met the de-escalation criteria.

6 Supplier Quality Escalation Team

Supplier Quality Escalation Team operates globally, with dedicated teams in various geographical areas, supporting issuers of eQuality reports working in the Scania units with deviation handling.

A visit by Supplier Quality Escalation SQM to the Organisation's facility where the deviation occurred will usually be made with short notice. Depending on the urgency, this visit can be on one day's prior notice.

The objective is to handle organisation-related problems, to solve them quickly and re-establish the normal situation and thereby secure the production at Scania.

The Supplier Quality Escalation assignment leader takes over the responsibility for the follow up in the eQuality report from the issuer.

7 Handling routine of disturbances in projects

When an Organisation receives the serial order including the PPAP request from the purchaser, the Organisation can accept or reject the PPAP request. When the PPAP request has been accepted by the Organisation, Scania counts with deliveries from the Organisation that will lead to a full approved PPAP according to PPAP request date in ePPAP, as requested in STD3868.

If the deliveries in the project work are below expectations, planned finish dates on activities are missed, communication is poor and not reaching the PPAP delivery date is possible, the issues will be handled by the responsible Purchaser.

A meeting with the Organisation will be arranged by the responsible Project Purchaser. The Organisation shall present a CAP to meet the project plan details.

When an Organisation wants to discuss deviation(s) in projects, please contact the responsible Purchaser or Commodity SQM at Scania.

8 Conclusions

This information is written primarily for Organisations to explain how deviations shall be handled by Organisations.

Furthermore, the document presents the Organisation requirements connected to this handling process.

If you want to discuss specific details connected to your company, please contact your designated Purchaser or SQM at Scania.

9 Referenced documents and IT-System

In this STD, all corporate standards are referred as international standards (e.g.: ISO, EN). These international standards are available as national edition at the respective national standardisation organisation (e.g.: DIN ISO, SS-ISO, DIN EN, SS-EN).

9.1 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the issue cited applies. For undated references, the latest issue of the referenced document (including any amendments) applies.

STD3868	*Scania Customer requirements*
STD4172	*Scania Logistics Manual*
eQuality User Guide	*User guide modules "eQuality for Supplier" including "eInvoice" for external Organisation Users*
Code of Conduct (eQuality)	*Code of conduct concerning the communication between Organizations and Scania via the eQuality system*
Formel Q konkret	*Quality Management Agreement Between the Companies of the Volkswagen Group and its Suppliers*

9.2 Referenced IT-System

This standard is linked to referenced IT-systems. Any changes in the standard shall be done in adjustment to them.

eQuality system and eInvoice	*Deviation handling module eQuality for Suppliers*

Annex A (informative) Change history

Issue	Issue date	Changes from previous issue
3	2020-03-16	The whole STD is reworked and Suppliers are expected to read the entire STD. The main changes are: • Title has been changed. • Logistic deviations have been transferred to STD4172 – Logistic manual. • Major revision of chapters 4 Scania Quality Escalation Model and 5 Supplier Quality Escalation Team.
2	2017-03-02	Clarification in chapter 9 “Scania Escalation Model (Critical Supplier Program VW Group)”.
1	2016-12-20	The new STD has been released.