



Driveline and Chassis Technology

# ZF Escalation Model - "Supplier / Purchased Parts"

ZF Friedrichshafen AG



## Purpose

Safeguarding faultless deliveries to our customers is the highest priority at ZF. To this purpose, faultless deliveries from our suppliers are an absolute requirement.

In the event of faulty deliveries, the ZF escalation model "Supplier / Purchased parts" comes into action. This model is fundamentally applicable for all suppliers of production materials to ZF and its divisions.

For all those involved, this escalation model supports

- quick and effective action and
- binding and sustainable process optimization.

If necessary, to eliminate faulty purchased material, cross-functional teams are to be formed between the supplier, ZF and if applicable, external experts

The escalation model "Supplier / Purchased parts" describes the procedure to be followed in the case of faulty purchased material and inadequate sustainability in correction of the defects.

It ensures that the various ZF plants use a universally standardized procedure and that the ZF suppliers are linked into the problem solving process through the same escalation model.



## Inclusion in the Escalation Model (Adoption Criteria)

Escalation can be applied in the case of:

- Faulty purchased material
- Repeat defects - despite completed problem-solving process (8D)
- Inadequate complaint management by supplier
- Target agreements being violated in the long-term or on several occasions
- Customer complaints on the basis of faulty purchased parts

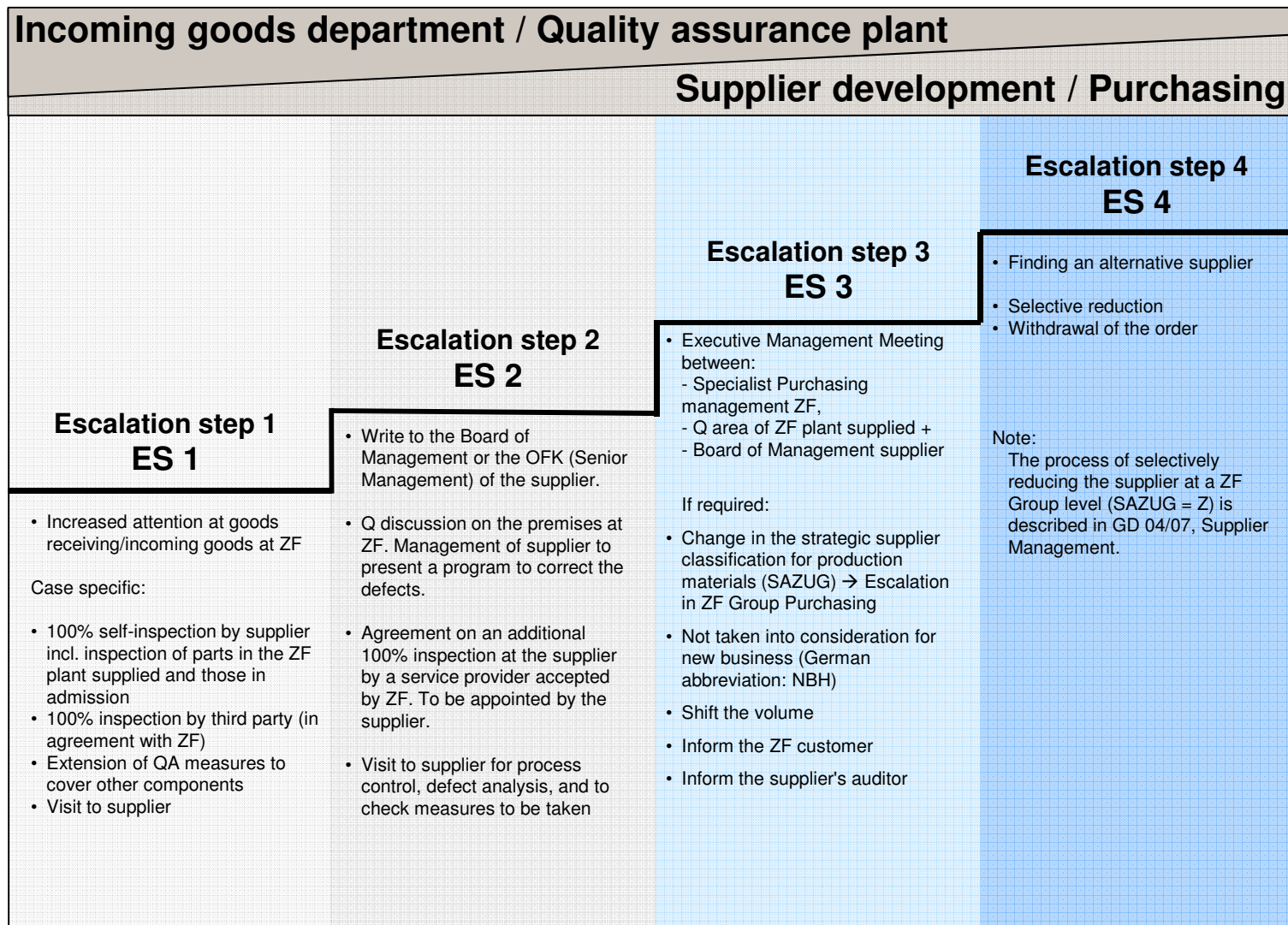
In addition to that, criteria are taken into consideration such as:

- Criticality or importance of defect
- Consequences of defect for ZF production
- Consequences of defect for production at ZF customer
- Potential complaints from the field or recall campaigns by ZF customers

The extent to which one or more of the above events or criteria lead to application of one of the escalation steps will be decided on a case-by-case basis by the responsible specialist departments. Depending on the situation, direct entry to step 2 or 3 can also occur.



# Escalation Model "Supplier / Purchased Parts" contents of the Escalation steps





## Escalation Step 1 (ES1)

If the ZF plant has decided on the basis of the facts available to apply step ES1 to the supplier, then increased attention is required at goods receiving at ZF.

In this step, the ZF plant supplied defines the following:

- affected components
- affected characteristics
- type of inspection,
- labeling,
- content and scope of documentation
- criteria for de-escalation
- criteria for going to next step (further escalation)



## Escalation Step 1 (ES1)

In the individual case, the following must be effected:

- 100% self-inspection by supplier incl. inspection of parts in the ZF plant supplied and those in admission/flow-in
- 100% inspection by third party (in agreement with ZF)
- Extension of QA measures to cover other components
- Visit to supplier

The agreed inspection must refer to the characteristics which have become conspicuous. It must be documented in writing by the supplier for every delivery on the basis of the Quality Directive QR83 form "F11; Marking of Inspected Commodities After Case of Complaint" to be documented in writing. Apart from that, the ZF plant supplied can specify additional documentation requirements.

The supplier must implement the agreed measures until verification of a sustainable solution to the problem has been provided. This will lead to de-escalation.



## Escalation Step 2 (ES2)

If the verification required in step ES1 is not provided or is not provided on time, then the ZF plant supplier can introduce escalation step 2. The classification is carried out in cooperation with the responsible Purchasing for "production materials".

In escalation step 2 the following steps are obligatory:

- Write to the Board of Management or the OFK (Senior Management) of the supplier.
- Q discussion on the premises at ZF. Management of supplier to present a program to correct the defects.
- Agreement on an additional 100% inspection at the suppliers by a service provider accepted by ZF. To be appointed by the supplier.
- Visit to supplier for process control, defect analysis, and to check measures to be taken

Further tasks of the supplier at this stage are:

- Reporting on cause analysis
- Status of correction of defects
- Working through measures to be taken

The supplier must implement the agreed measures until verification of a sustainable solution to the problem has been provided. This will lead to de-escalation.



## Escalation Step 3 (ES3)

If the measures agreed in step 2 do not lead to the envisaged outcome or are processed inadequately, Purchasing for production materials can introduce escalation step ES3.

In escalation step 3 the Purchasing Management needs to initiate a meeting with the following parties:

- Executive Management Meeting between:
  - Specialist Purchasing management ZF,
  - Q area of ZF plant supplied +
  - Board of Management supplier

If necessary the following consequences can be introduced here:

- Change in the strategic supplier classification for production materials (SAZUG) ⇔ Escalation in ZF Group Purchasing
- Not taken into consideration for new business (German abbreviation: NBH)
- Shift the volume
- Inform the ZF customer
- Inform the supplier's auditor



## Escalation Step 4 (ES4)

If the measures agreed in step 3 do not lead to the envisaged outcome or are processed inadequately, the Purchasing Manager for production materials must introduce escalation step ES4.

In other words,

- Development of an alternative supplier
- Selective phase-out
- Withdrawal of supply contract



## Completion of Escalation Process

### **De-Escalation**

A de-escalation of the supplier is carried out by the respective board to:

- the previous step  
or
- withdrawal from the escalation model

### **Costs**

ZF retains the right to charge all costs incurred by applying the escalation model to the supplier.