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Scope:	ZF Suppliers of Production Material Product Launch Activity	Valid from:	2018.01.01
Subject:	Harmonized Safe Launch Process		
Purpose:	Provide guidance to ensure the effective launch of purchased parts		
Binding language(s):	English		

1. Objective

This specification serves as a quality requirement for the planning and execution of the Safe Launch activity for elevated risk projects as defined by the supplier management risk assessment tool or division A component prioritization matrix or as required by the receiving plant. This quality requirement exists to ensure defect free, on time delivery of parts during the Safe Launch period.

2. Scope

This specification defines and describes the minimum requirements. The requirements jointly agreed between ZF and the supplier in the Product Characteristics Matrix, purchase contract, design records, quality planning meeting, and other relevant pre-launch expectations serve as the base documents to reference for creation, execution and reporting during the Safe Launch activity. This applies to sub-tier suppliers who have an impact on these features, requirements, and agreements. A Safe Launch Plan is to be jointly defined, executed and monitored by the launch team for all elevated risk component launches (A & B) unless specifically agreed in writing otherwise.

3. Safe Launch Team

The SL team will consist at a minimum of a ZF contact person (SDE/SQA/SQE/etc.) and a single point of contact quality resource at the supplier. The defined team may be expanded and is in fact encouraged to include representatives from any relevant functional departments.



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4. Activities during Safe Launch (SL)

The following activities shall be conducted during the Safe Launch period as required.

A cross functional team with representatives from the supplier, ZF engineering, quality, and if required operations will define product characteristics that are key to a safe launch. These characteristics include but are not limited to:

- Significant and Critical characteristics on the drawing
- Customer pass through characteristics
- Known features with historical quality issues
- Key assembly or touch points

The SLP team will jointly review the characteristics to be closely monitored and will :

- Define any relevant increased inspection techniques or frequencies
- Agree upon the reporting method and frequency for each characteristic
- Define the process control method to be used in serial production
- If required conduct weekly layered-audits for evaluation SLP effectiveness

Shipments to ZF within the safe launch period will be identified with a clearly visible safe launch marking (label, stamp, etc.)

5. Duration of Safe Launch Phase

The Safe Launch Phase starts from time of PPAP and will continue until the agreed upon SLP duration elapses. Safe launch period will be sufficient to adequately assess suppliers process variation related to SLP characteristics. Typical SLP duration for high volume production is SOP + 90 days at the end customer. Typical SLP duration for low volume components dictates a number of unique shipments sufficient to represent serial production variation. SLP can be defined as applicable to pre-production runs as well if warranted and defined by the launch team.

Exit criteria for the Safe Launch Plan is the successful shipment of zero defects within the entire defined Safe Launch Phase. Any defect discovered during the SLP period restarts the event to "0" pieces shipped and the Safe Launch Phase is restarted with the next clean delivery. Modifications to the safe launch plan may be made as process variation is understood during safe launch. In special cases, duration may be extended on account of high internal reject rate, until resolution or ZF customer's request.



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6. Inspection levels during Safe Launch

During the Safe Launch activity, an increased inspection frequency beyond that defined by the serial production control plan must be considered. This could include alternate gaging equipment or techniques, secondary and tertiary inspections on production gaging, or supervisory audit inspections. Qualified and trained inspectors as well as qualified inspection equipment (gage R&R) must be planned well in advance of production readiness.

7. Involvement of external service providers (3rd Party) in the Safe Launch

To enhance inspection capacity, 3rd party services may be engaged during Safe Launch. Approval of third party resources, equipment, and measurement technique must be approved prior to SLP. In some regions, ZF may provide a list of preferred service providers.

8. Batch release of single batches in Safe Launch

For the validation of defect free deliveries direct to customer locations, a separate supplier internal release of delivery batches must be considered and reviewed prior to shipment.

9. Submission of Safe Launch Data

Process / Inspection raw data, capability charts, internal rejections, shipment lot numbers, production data, etc. must be submitted as defined in the SLP. The frequency of submission is typically weekly or with every shipment. Submitted data is to be reviewed prior to shipment if possible. The reporting tool to be used will be defined by the SLP team. In the event any non-conformity is detected, ZF must be notified immediately. If shipment is required to meet production demand, an associated deviation request must be authorized prior to shipment.

10. Identification

Every shipped container, during Safe Launch Phase shall be identified with "SLP" label or equivalent. It is recommended for suppliers to advise the receiving plant when SLP shipments are departing the supplier location and when delivery is expected.