 Work Instruction	
Title: Supplier Qualification and Monitoring	WI Number TT-WI-0137 Revision: 7
Department: Purchasing Quality Assurance Area: Purchasing Quality Assurance	Approved & Released Work Instruction
Document Type: Work Instruction	Next Update Period - 365 Days

1.0 Purpose:

This procedure establishes the method used to select, evaluate, qualify, monitor and potentially disqualify suppliers.

2.0 Scope:

This procedure applies to suppliers that provide:

- material used in the manufacture of finished product and directly impacts its form, fit or function (Level I Suppliers)
- services that directly affect the form, fit or function of the finished product (Level IV Suppliers)

3.0 Responsibilities:

Quality Engineering / Process Engineering

Responsible for providing support during qualification processes such as generating test plans or requests, authoring material specifications, and performing testing and material qualification for products as indicated. Also provide performance data where needed.

Supplier Quality

Responsible for supplier qualification and monitoring.

Sourcing

Responsible for providing contact information and assisting in supplier qualification and monitoring activities.

Supplier Evaluation Team

Comprised of a minimum of Quality Engineering, Sourcing, and Engineering (typically Process Engineering), responsible for supplier evaluation.

4.0 Definitions:

Approved Supplier List (ASL)

Database used to track supplier qualification status, monitor supplier performance and retain records related to supplier monitoring activities.

Raw Materials

Materials that become constituents or components of finished Trans-Tech products.

On-Site Quality Systems Audit

Audit performed at the suppliers facility to assess the supplier's compliance to the Trans-Tech Quality Manual as well as their manufacturing capability, technical proficiency and overall competency.

On-Time Delivery

A delivery received three days prior - two days after the actual due date on the Purchase Order.

5.0 Work Instruction Steps:

5.1 Supplier Selection

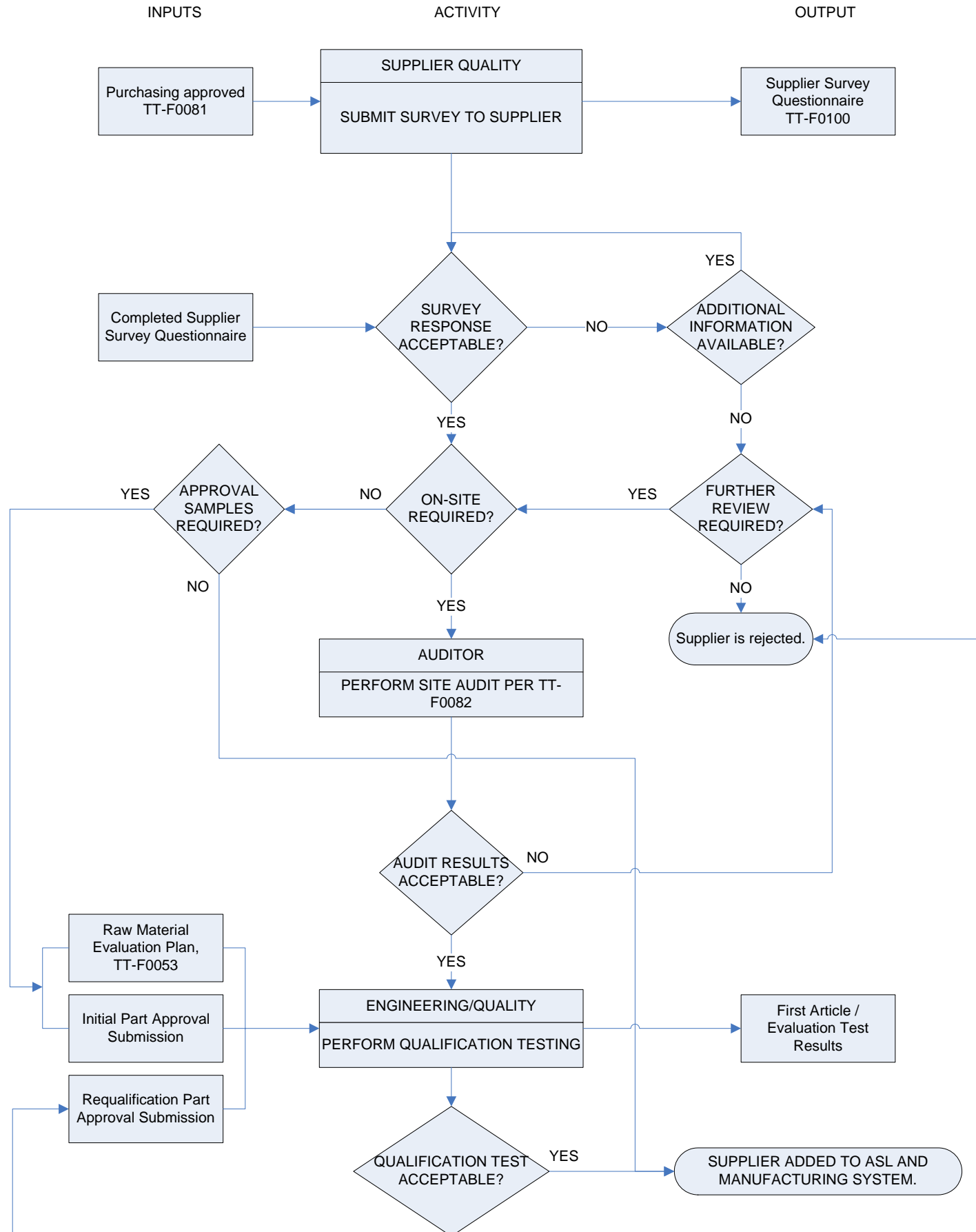
- 5.1.1 The engineering community locates potential suppliers for evaluation of a new product, service or external process. They submit a Candidate Supplier Procurement Survey Request, Form TT-F0081, to the Purchasing Department.
 - 5.1.1.1 The originator completes the top portion of the request.
- 5.1.2 Purchasing reviews the request and either accepts or rejects the request.
 - 5.1.2.1 Purchasing completes the middle portion of the request.
 - 5.1.2.2 If rejected, Purchasing returns Form TT-F0081 to the originator with an explanation of the reason(s) for rejection. The originator may resubmit or seek alternative suppliers.
- 5.1.3 For raw materials, purchasing may obtain a screening sample from the potential supplier of <1kg, or economic qty, for a screening review.
 - 5.1.3.1 Engineering would review the screening sample and determine whether or not to continue with the supplier qualification and the full material evaluation.
- 5.1.4 Purchasing then forwards the Survey Request, TT-F0081, to the Quality Department.

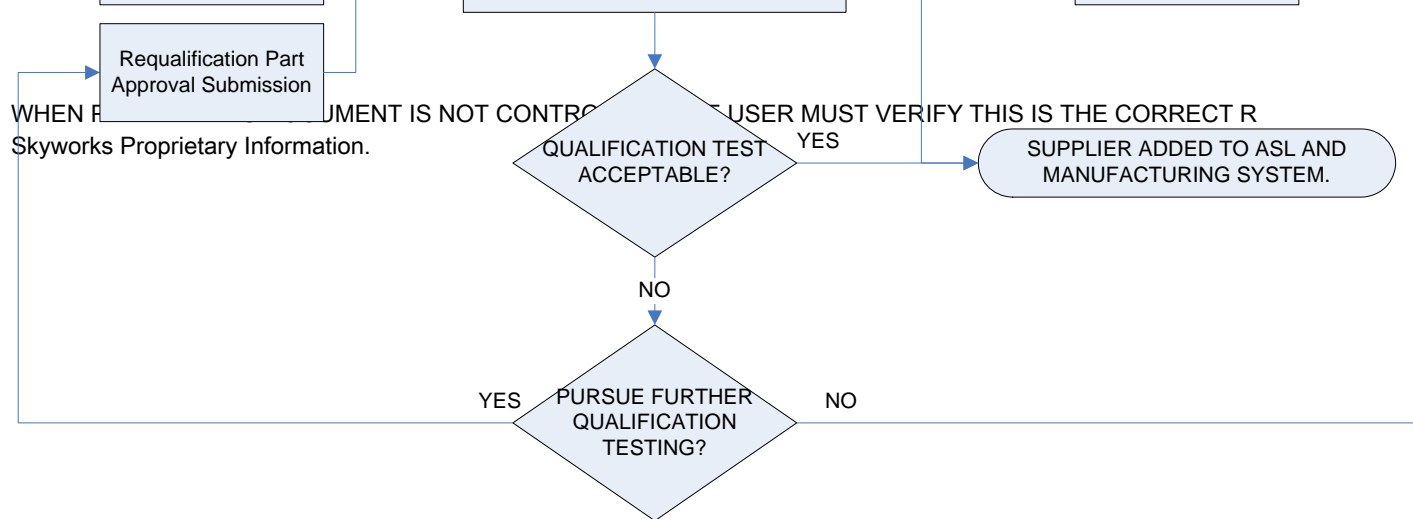
5.2 Supplier Qualification

- 5.2.1 Upon receipt of the Approved Supplier Procurement Survey Request, Quality will enter the potential new suppliers into the Supplier Management database and submit the following items to them:
 - TT-SOP-0037 - Trans-Tech Supplier Quality Manual
 - Form TT-F0100 - Candidate Supplier Procurement SurveyThe supplier is expected to review the specifications, complete and return the survey to the Quality Department for review and approval.
- 5.2.2 Upon receipt of the completed Candidate Supplier Procurement Survey, the Supplier Evaluation Team, led by Supplier Quality, will evaluate the information provided to determine the suppliers compliance to the requirements and if an on-site supplier quality system survey is deemed necessary.
 - 5.2.2.1 A survey score of $\geq 70\%$ indicates the supplier may be approved. A score of 50% - 69% indicates the supplier may be conditionally approved. A score of $<50\%$ indicates the supplier is considered unacceptable.

- 5.2.2.2 When a candidate supplier is not approved as a result of a deficient survey, the Quality Department may recommend a re-survey providing the supplier takes action to correct the deficiencies.
- 5.2.2.3 If insufficient information was obtained, the candidate supplier is notified and additional information is requested.
- 5.2.2.4 If additional information, or any survey response, can not be obtained from the candidate supplier, Quality management may decide to accept the information already provided or any available information obtained from the suppliers website or other sources in lieu of the completed survey.
- 5.2.3 If an on-site quality system survey is required, Supplier Quality will assign the audit team, schedule the audit and specify any additionally approval requirements on TT-F0081 (Quality Section).
 - 5.2.3.1 The on-site survey should be conducted in accordance with the Supplier Quality System Survey/Audit, Form TT-F0082.
- 5.2.4 The supplier may be required to submit samples as part of the evaluation. If so, they are to be processed in accordance with TT-WI-0132, First Article Inspection.
- 5.2.5 If the procured item is a raw material, then a raw material evaluation is required.
 - 5.2.5.1 The responsible engineer must submit a Raw Material Evaluation Plan, Form TT-F0053.
 - 5.2.5.2 The plan must be approved by the designated staff, Form TT-F0053, prior to the performance of the evaluation.
 - 5.2.5.3 After completion of the material evaluation (including material cost analysis and identification of usage limitations), the evaluation results must be approved by designated staff, Form TT-F0053.
- 5.2.6 Once the required documentation is received and evaluations complete, Supplier Quality will send the supplier record out for approval and addition to the Approved Supplier List (ASL). Supplier Quality and Purchasing are the minimum required approvers.
 - 5.2.6.1 Once approved, the supplier profile status will change to Qualified and will be visible in the Approved Suppliers views.
 - 5.2.6.2 The ASL includes information related to the qualification activities or the qualification data is otherwise retained on file.
- 5.2.7 Additional materials/services submitted by the same supplier may be qualified by association or submitted to full qualification, depending on the application and the Supplier Evaluation Team's decision.
- 5.2.8 A resurvey is required at the discretion of Supplier Quality.

Note: All suppliers that were in use prior to January 2009 are considered grandfathered into the ASL.





5.3 **Supplier Monitoring**

5.3.1 Supplier performance is scored on a periodic basis and maintained in the Supplier Quality database. Supplier performance is measured as a minimum using the following methods:

- Quality (Number of Supplier Corrective Action Request (SCARs) initiated and the number of SCARs closed with no response)
- Delivery (Number of deliveries not on time)
- Customer complaints as a result of supplier products and/or services

The supplier score is calculated based on a demerit system as noted in the database record. If a supplier has no activity for a particular month, the score is left blank.

5.3.2 The supplier quality representative may elect to perform additional supplier monitoring using, but not limited to, the following methods:

- SQ04-0004 - Supplier Development Review
- Quality (e.g. yield, PCM, Cpk, in-line visual inspection data, merit testing, NCMR, RMA, etc.)
- Engineering indices

Note: Supplier monitoring for original equipment manufacturers is optional.

5.4 **Supplier Disqualification**

5.4.1 Suppliers that fall below an average of 70% rating for three consecutive months are placed on probation and an improvement plan is formally requested.

Note: Months without any activity are not taken into account when considering "consecutive" months.

5.4.2 Suppliers that fail to implement positive corrective action as determined by the Supplier Evaluation Team are deemed disqualified.

5.4.2.1 Additional factors may be considered such as business strategy, availability of qualified alternate sources, cost impacts, technology strategy, etc.

5.4.3 Disqualification may be temporary, specific to a part or service, or complete depending on the severity of the nonconformance and the response by the supplier. Any disqualification is denoted in the ASL.

5.4.4 If specific products are disqualified via performance issues or lapses in usage, the products are re-qualified by performing testing equivalent to initial qualification as defined by the Supplier Evaluation Team.

Note: The Supplier Management database will be used to control the ASL, SCARs,




Supplier Monitoring and Supplier Disqualification effective January 2009.

6.0 Quality Records:

The following records may be generated as a result of following the steps in this document:

Identification	Form Number	Owner	Indexing	Storage	Retention Time	Disposition
Candidate Supplier Procurement Survey Request	TT-F0081	Quality	Supplier	Electronic or Hard copy	7 years	Destroy
Candidate Supplier Procurement Survey	TT-F0100	Quality	Supplier	Electronic or Hard copy	7 years	Destroy
Supplier Quality System Survey/Audit	TT-F0082	Quality	Supplier	Electronic or Hard copy	7 years	Destroy
Raw Material Evaluation Plan	TT-F0053	Quality	Supplier	Electronic or Hard copy	7 years	Destroy
Supplier Record	-	Supplier Quality	Supplier	Electronic	7 Years	Destroy
Supplier Development Review	SQ04-0004	Quality	Supplier	Electronic or Hard copy	7 years	Destroy

7.0 Associated Documents:

TT-F0053 -- Q0601-4 RAW MATERIAL EVALUATION PLAN 
 TT-F0081 -- Q0601-1 - Candidate Supplier Procurement Survey Request 
 TT-F0082 -- Q0601-3 Supplier Quality System Survey / Audit 
 TT-F0100 -- Q0601-2 - Candidate Supplier Procurement Survey 
 TT-SOP-0037 -- TRANS-TECH SUPPLIER QUALITY MANUAL 
 TT-WI-0132 -- First Article Inspection 
[SQ03-0037 -- Supplier Development Review](#) 
[SQ04-0004 -- Supplier Development Review](#) 

8.0 Document Revision History:

Revision: 7	Date Created: 06/26/2008 Date of Last Revision: 09/16/2009	Last Approval Date: 09/16/2009
Document Author: Stacey Clayton	Document Manager: Lea Bartlett	

9.0 Reason for Change:

Revision:	Initiator	Change Made:	Date
1	L. Bartlett	Initial Issue of Document. Originally TT-SOP-0005, Rev. 3. Changed to Level III per ISO gap action. Submitted same as SOP	06/28/08
2	S. Clayton	Revamped document to include items from SQ03-0138. Added sections 5.3 and 5.4. Changed title from "Vendor Evaluation and Selection". Updated associated docs.	9/15/08
3	S. Clayton	Premium freight removed from supplier monitoring section 5.3.1	12/22/08
4	S. Clayton	Updated/replaced flowchart. A screening sample for raw materials was added to section 5.1. The wording in section 5.1 and 5.2 was revamped for clarification. Record retention times changed to 7 years from 5 years.	1/20/08 1/21/09
5	S. Clayton	Modified note under 5.2.8 to clarify the cutoff for grandfathering into the ASL. Added note under 5.4.3 regarding the adoption of the	2/23/09

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Skyworks Proprietary Information.

		Supplier Management database.	
6	S. Clayton	Updated section 5.2.8 to remove the need for resurvey in the event of mergers, acquisitions or affiliations. Updated 5.3.1 for monitoring regarding SCARs closed with no reponse. Also updated note about a score when there has not been any activity. Changed disqualification, section 5.4, from qtr. to 3 consecutive months and added note.	5/20/09
7	S. Clayton	Updated wording of 5.2.1. Updated 5.2.6 and 5.2.7 due to use of database for approvals. Updated flowchart accordingly. Removed rejected shipments as a Quality factor in 5.3.1. Updated approver list.	9/11/09

10.0 Electronic Notification List: [TT DOCCNTL, Kim Hope](#)

11.0 Approvals:

Note: You may click on an approvers name to see the entire list of allowed approvers for that signature .

First Approver's Signature

Name: [Sabrina L Winpigler](#)
Title: Quality Manager

9/11/2009 - Final Approval by: Sabrina L Winpigler

Second Approver's Signature

Name: [Ray Geraghty](#)
Title: Purchasing Manager

9/11/2009 - Final Approval by: Ray Geraghty

Third Approver's Signature

Name: [Gary G Moore](#)
Title: Controller

9/11/2009 - Final Approval by: Gary G Moore

Fourth Approver's Signature

Name: [Myra T Cope](#)
Title: Q.A. Technician

9/16/2009 - Final Approval by: Myra T Cope