PURPOSE: To explain key points and submission procedure for the Quality Assurance Schedule

SCOPE: Applies to all TMI suppliers at all phases as explained in Section 3

EXPLANATION: The Quality Assurance Schedule (QAS) is the method used to provide a schedule of the manufacturing and quality control activities necessary to assure the quality of all parts for all phases.

A QAS should span the time between the issuance of the production part drawing or RDDP through the first month of mass production and show the relationship between the supplier's activities and TMI's timing requirements as defined in the QUALITY ASSURANCE PROJECT PLAN (QAPP) (TMI SQAM Section 25).

RELATED DOCUMENT(S):

TMI QUALITY ASSURANCE PROJECT PLAN (TMI SQAM Section 25)

REQUIRED DOCUMENT(S):

QUALITY ASSURANCE SCHEDULE (QAS) - TMI APPENDIX 4A
QAS STATUS REPORT - TMI APPENDIX 4B

RESPONSIBILITIES:

1) The supplier shall develop a cross functional team to develop the QAS.

2) The supplier must submit a QAS per TMI plant QC instructed timing per QAPP for each representative part used by TMI. Multiple (family or symmetrical) parts may be submitted on one single QAS if approved by TMI plant QC.

3) The supplier has the responsibility to complete the QAS including the following at minimum:

   A) Master schedule at top of page including the following:
      a) Supplier trial and sample schedule indicating supplier production trials and parts shipping schedule to meet trial requirements

         NOTE: The supplier's assembly trials should reflect the mass production process and should include mass production level team members, material, tooling, test and checking equipment, and process flow, layout, and procedures unless otherwise approved by TMI.

      b) Build out and start up plan
      c) Worker hiring and training plan
      d) Part assembly trials
      e) Shipping dates to TMI

   B) Component Build and Ship Schedule detailing all major components and the location for their build (i.e. on line, at tool builder, Japan, etc.). If a subsupplier is noted, the control must include sourcing, evaluation, and trial dates for that subsupplier.

C) Production Level of parts including the following:
   a) Production drawing release
   b) General schedule for tooling
   c) Equipment, jig, checking fixture schedules

   NOTE: The target for parts off production tooling and processes is 1A at the latest.

D) Timing for evaluations to be completed including the following:

   a) Material (through submission of the RAW MATERIAL CERTIFICATION STATEMENT - TMI SQAM - Section 24)
   b) Dimension
   c) Appearance
   d) Performance
   e) Function

NOTE: The detail and results for all evaluations is to be submitted using the Parts Evaluation Plan (SQAM Section 11).

E) Plan for the internal quality system including the following:

   a) Standardized work
   b) Maintenance plans and logs
   c) Receiving inspection standards and checksheets
   d) Daily check sheets
   e) Procedures
   f) Systems

F) SQAM requirements (per the manual and / or the master schedule) including the following (where applicable):

   a) Supplier Quality Assurance Contact
   b) Quality Assurance Schedule (QAS)
   c) Tool Progress Report (TPR)
   d) Part Evaluation Plan
   e) Sample Data Sheets
   f) Inspection Standard
   g) Critical Characteristic Matrix
   h) Checking Fixture (C/F)
   i) Process FMEA
   j) Manufacturing Quality Chart (MQC / CP)
   k) Material Certifications - (Raw Material Certification Statement)
   l) Engineering Change Instruction (ECI) Implementation
   m) Color Match
   n) Grain Approval
   o) Packaging Proposal Form
   p) Provisional Approval

q) Final Approval

G) High Volume Production Trial (HVPT) to be shown in the QAS as milestones to judge the actual condition to target plan for process, tooling, and countermeasure effectiveness. Requirements for HVPT will be stipulated by TMI.

H) Special Inspection Plan outlining methods, responsibilities, locations, and frequencies for monitoring quality and productivity of a new model / part mass production during the initial mass production stages (QCS to full production) with focus on the following:

a) Special inspection points within the process
b) Confirmation of countermeasures implemented during pilot production trials
c) Confirmation of late ECI implementation
d) Detection of new problems resulting from sustained volume production

Once the QAS is completed, the supplier must make sure that all internal departments have approved the plan. Signatures from all related departments are required before submission to TMI.

4) The supplier must then submit the QAS to TMI QC. TMI QC will forward a copy of the supplier's QAS to TMI Purchasing Supplier Development.

5) TMI QC will then review the QAS and confirm the activity to the TMI required timing. Requests for adjustments will be negotiated between the supplier and TMI QC.

6) The supplier must review the QAS monthly, revise, and resubmit as necessary. The supplier's top management will be responsible for monitoring the plan to achieve the milestones as scheduled.

A) If the plan meets the schedule the supplier should indicate "No change to schedule" on the QAS / TPR Status Report and submit to TMI QC.
B) If there are changes to dates or content on the original QAS the supplier must list the changes on the QAS and submit both the status report and the revised QAS to TMI QC.

REVISION	REVISED DATE	SECTION	UPDATING DESCRIPTION
0	07/09/01	ALL	Initial release
1	05/02/03	ALL	Revision record added
2	10/15/03	4	Added internal routing from TMI QC to TMI Purchasing Supplier Development
3	08/09/04	SCOPE	Added Phase 1 and new TMI SQAM elements