Supplier Development
Advance Activities Process

Process Steps

1. **Inputs:** Opportunities for special project activities
   - Primary source of inputs come from Product Purchasing Managers
   - Secondary source of inputs come from Advance Quality
   - Candidates may be identified by executive staff

2. **Screen** candidates
   - Determine reason for request
   - Look for manufacturing process opportunities
   - Determine level of risk

3. **Select** candidates
   - High risk candidates prioritized
   - Notify customer

4. **Assign** Supplier Development Engineer
   - Apply appropriate resources
   - Supplier Development commodity managers prioritize work

5. **Understand Scope** of Project: Focus Opportunity
   - Initialize project documentation, update tracking system
   - Supplier Name
   - Supplier Location(s)
   - Product Involved (component, module, system)
   - Design responsibility and contact
   - Buyer(s) responsibility and contact
   - Identify APQP assigned engineer

6. **Obtain Information** for Analysis:
   A. Source
      - Supplier Performance History
        - Quality (PRR's, PPM, Previous PPAP's, Quad Chart, SQE Feedback)
        - Service (SPO SPDI, Premium Transportation, Past Launches, Capacity Capability)
        - Technology (Process Technology-new/old, high/low tech)
        - Price (Cost Creep History, Past Price Increase Requests, Competitiveness)
      - Risk Assessment Form Detail
      - Business Over Time for Supplier and Location
      - LCR/MCR Contracted (Production Capacity to be Installed)
      - Supplier Profile Worksheet
      - Product Mix, Volumes, and Acceleration Plan

Advance Activities Process - Continued

- Supplier Contacts (Project Manager, Sales Contact, and other Key Personnel for Project)
- Supplier Contact Phone Numbers
- "STEP" Assessment (If Available)
- Cost Breakdowns (From Sourcing Package)
- Tooling Breakdowns (From Sourcing Package)
- APQP Worksheet / Readiness Checklist
- Copy of Sourcing Package from Advance Purchasing
- Potential for Design Changes Prior to SOP

B. Source = Suppliers
- Proposed Process Flow by Operation with Operators Identified
- Proposed Process Layout
- Key Dates and Project Timing Plan / Readiness Checklist (Gantt Chart)
- Equipment Purchases, Timing, Installation
- Similarity to Existing Process
- Facilities Information (Greenfield Site, Plant Expansion, or within Current Facility)
  - Rearrangement Required
  - Current Product Exit Timing
- Facility Capacity Utilization and Business Change over Time
  - Any Other New Projects with Timing Parallel to this Project
- Supply Chain Definition and Actions
- Assumptions Made in Manufacturing System Design
    - Uptime/Downtime
    - First Time Quality/Scrap Rate
    - Mean Time To Repair (MTTR)
    - Mean Time Between Failures (MTBF)
    - Cycle Time
    - Planned Maintenance
    - Buffers
    - Changeovers (Frequency and Time to Accomplish)
    - Operating Plan (# of Shifts, Days Worked, Hours per Shift)
- Packaging/Containerization

7. **Assess and Evaluate** Information for Action Required:
- Combine All Data
  - Big Picture
  - Significant risk elements
- Utilize simulation and analysis tools
  - Supplier simulations (if available)
  - Capacity analysis
  - C-More Analysis
  - Witness Analysis

Advance Activities Process - Continued

8. **Develop Action Plan** to Address Areas Identified:
    - Develop "Enhanced" readiness plan with the APQP Engineer to address critical areas
    - Identify gaps
        - Define achievable tasks
        - Define champions
        - Define closure criteria
    - Identify desired outputs:
        - Validated process capability
        - Validated quality capability

9. **Achieve Commitment** to Support Implementing the Plan:
    - Begin with the end in mind
        - A successful launch is non-negotiable
        - Time does not stretch or expand
        - A good start is a precursor to a great finish
    - Obtain buy-in and commitment
        - Top leadership
        - Program Manager
        - Functional Managers

10. **Implement Plan**:
    - The "Master Plan" is the APQP process
    - The "Supplier Development Plan" is only the appropriate *Manufacturing Engineering* activities that support the master plan
    - Utilize the Supplier Development "Toolbox"
    - State the expectations - measure the results
    - Cooperation and communication is the key to successful implementation of the plan

11. **Confirm Results** Achieve Desired Objectives:
    - Metrics:
        - Timing achieved
        - Throughput (constraints management)
        - Capacity utilization
        - Run at Rate
        - Uptime
        - Synchronous
        - Process Capability achieved

12. **Review** Performance
    - Platform leadership
    - Product Purchasing Manager
    - Supplier Quality Leadership
    - WWP Commodity Staff

Advance Activities Process - Continued

13. **Monitor Ongoing** with SQE until Post SOP:
    - Track progress with APQP Engineer
    - Improving manufacturing capability, capacity utilization and throughput is the prime directive for the SDE
    - Capability and capacity must be equal to or better than LCR/MCR
    - First time quality at rate is the goal

14. **Document**
    - Generate and maintain documentation of actions and results
    - Utilize documentation for “lessons learned” opportunities
    - Continuously improve the process

15. **Closure**
    - Close the loop with the originator/customer
    - Confirm customer satisfaction
    - Record final results in tracking system