Understanding AIAG Sub-tier Supplier Management (CQI-19)
Omnex provides training, consulting and software solutions to the international market with offices in the USA, Canada, Mexico, China (PRC), Germany, India, the Middle East, and SE Asia. Omnex offers over 400 standard and customized training courses in business, quality, environmental, food safety, laboratory and health & safety management systems worldwide.

Email: info@omnex.com
Web: www.omnex.com
Omnex Introduction

• International consulting, training and software development organization founded in 1985.

• Specialties:
  – Integrated management system solutions.
  – Elevating the performance of client organizations.
  – Consulting and training services in:
    • Quality Management Systems, e.g. ISO 9001, ISO/TS 16949, AS9100, QOS
    • Environmental Management Systems, e.g. ISO 14001
    • Health and Safety Management Systems, e.g. OHSAS 18001

• Leader in Lean, Six Sigma and other breakthrough systems and performance enhancement.
  – Provider of Lean Six Sigma services to Automotive Industry via AIAG alliance.
About Omnex

- Headquartered in Ann Arbor, Michigan with offices in major global markets.
- In 1995-97 provided global roll out supplier training and development for Ford Motor Company.
- Trained more than 100,000 individuals in over 30 countries.
- Workforce of over 400 professionals, speaking over a dozen languages.
- Former Delegation Leader of the International Automotive Task Force (IATF) responsible for ISO/TS16949.
- Served on committees that wrote QOS, ISO 9001:2000, QS-9000 and it’s Semiconductor Supplement, ISO IWA 1 (ISO 9000 for healthcare).
- Member of AIAG manual writing committees for FMEA, SPC, MSA, Sub-tier Supplier Development, Error Proofing, and Effective Problem Solving (EPS).
Omnex is headquarterd and operates from the United States through offices in Michigan.

The company maintains international operations in many countries to provide comprehensive services to clients throughout Western Europe, Latin America and the Pacific Rim.

www.omnex.com
info@omnex.com

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Who in the world is OMNEX?

Our global clients will tell you. We’ve implemented management systems for many of the world’s top companies.

- Bell Helicopter
- Bosch
- BYD
- Chrysler
- Ford
- Fujitsu
- General Motors
- Henkel
- Magna
- Mazda
- Micron
- Nestlé
- Nvidia
- Pratt & Whitney
- Siemens
- Sony
- Suzalor
- Suzuki
- Texas Instruments
- Toyota
- TRW

ISO 50001 : FSSC 22000 : ISO 13485 : APQP : Risk Management : Lean Enterprise
R. Dan Reid

- **Company Experience**
  - Omnex, Director of Consulting
  - AIAG, Program Development Manager, Quality
  - Baxter Healthcare, BioScience Division, Director of Supplier Quality
  - General Motors, Various Materials Management, Purchasing and Supplier Quality positions

- **Accomplishments**
  - ASQ Fellow and ASQ Certified Quality Engineer (CQE)
  - Member of U.S. Technical Advisory Groups for Quality, Environmental and OH&S Management Systems
  - The first Delegation Leader of the International Automotive Task Force (IATF)
  - Worked on the Chrysler, Ford and GM Potential Failure Mode and Effects Analysis, Production Part Approval Process and Advanced Product Quality Planning projects and IAQG APQP/PPAP Project
  - Led AIAG Projects for Effective Problem Solving, Cost of Poor Quality, Supplier Management and others
  - Registered VDA 6.3 Auditor Trainer; ISO 9000, ISO 14000, AS 9100 Trainer
  - A2LA Board of Directors

- **Awards include**
  - 2010 Quality Coaching Excellence for Primary Care Practices, Michigan Primary Care Consortium
  - 2006 Automotive Industry Action Group (AIAG) Healthcare Focus Group Chairs’ Award
  - 2004 ASQ Automotive Division Quality Leader of the Year
  - 2003 Leadership Award from the ISO9000 International Conference
  - 2002 AIAG Outstanding Achievement Award
Attendee Participation – Asking Questions

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An Omnex representative will contact you within 3 business days for your feedback and a PDF copy of these slides can be provided at that time.
Webinar Agenda

• Background

• Sub-tier Supplier Requirements
  – Pre-selection Phase
  – Selection Phase
  – APQP-PPAP Phase
  – Performance Monitoring, Development and/or Escalation Phase

• Questions
Great Recession of 2008

- Affected the entire world economy, still being felt today!

- The worst global recession since World War II characterized by various systemic imbalances, and was sparked by the outbreak of the U.S. subprime mortgage crisis and financial crisis of 2007–08

Great Recession of 2008

• The U.S. housing market was the domino toppled many of the world’s major economies and led the world into recession
  – Large numbers of homeowners faced rising adjustable-rate mortgage payments and/or could no longer borrow against a rising home value to finance other expenses
  – By the middle of 2009, the median home price had fallen close to its 2000 level
  – The government stepped in with a massively expensive bailout program in late 2008 and continuing into 2009

• Banking was especially hard hit (176 US banks failed in 2009)

• Businesses could not find the credit that they needed

• Automakers General Motors (GM) and Chrysler, both of which reorganized after brief trips through bankruptcy in 2009, qualified for bailout money
Auto Industry Impact

• The U.S. Big Three were affected because of
  – More expensive automobile fuels linked to the 2003–2008 oil crisis
  – Considerably higher labor costs than their non-unionized counterparts
  – The volume of cars sold in the U.S. was significantly tied to home equity lines of credit, with 24% of sales financed this way in 2006
  – When the availability of these loans suddenly dried up in 2008 due to the subprime mortgage crisis, vehicle sales declined dramatically, from 17 million in 2006 to 10.6 million in 2009

• Michigan lost 83,000 Big Three auto manufacturing jobs between 1993 and 2008
Auto Industry Impact

Employees, Seasonally Adjusted (Millions)

- 2003: 1.88 (1.13 Manufacturing, 0.75 Dealers)
- 2004: 1.90 (1.11 Manufacturing, 0.79 Dealers)
- 2005: 1.92 (1.10 Manufacturing, 0.82 Dealers)
- 2006: 1.91 (1.07 Manufacturing, 0.84 Dealers)
- 2007: 1.91 (0.99 Manufacturing, 0.92 Dealers)
- 2008: 1.83 (0.88 Manufacturing, 1.05 Dealers)
- 2009: 1.64 (0.66 Manufacturing, 0.98 Dealers)
- 2010: 1.63 (0.68 Manufacturing, 0.95 Dealers)
- 2011: 1.69 (0.72 Manufacturing, 0.97 Dealers)
- 2012: 1.73 (0.77 Manufacturing, 0.95 Dealers)
- MAR'13: 1.76 (0.79 Manufacturing, 0.97 Dealers)

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Auto Industry Impact

- Supplier Quality Resources were impacted
  - Retirement
  - Hired by other industry sectors, e.g. aerospace
  - Relocated

- Manufacturing companies today struggle to find enough competent supplier quality resources

- Academia does not adequately prepare students for supplier quality jobs
  - How many students go into Quality as a profession?
  - How much does your company spend on purchased products?
Why do we need to do Supplier Management?
Why Supplier Management?

- ISO/TS 16949 requires supplier quality management system development (clause 7.4.1.2)
- Customer quality concerns, e.g. “pass through” issues
- Shortcomings of third party certification
- Develop more competition in supply chain
- Ensure delivery, e.g. sufficient capacity is available
- Reduce Cost of Quality (COQ)
- Manage a financially-troubled supply chain
- Drive effective use of limited supplier quality resources

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Supplementary Quality Management System Development (clause 7.4.1.2)

- The organization must perform supplier quality management system development with the goal of supplier conformity with this Technical Specification – conformity with ISO 9001:2008 is the first step in achieving this goal.
  
  - NOTE: The prioritization of suppliers for development depends upon, for example, the supplier’s quality performance and the importance of the product supplied.

- Unless otherwise specified by the customer, suppliers to the organization must be third party registered to ISO 9001:2008 by an accredited third party certification body.
Why Supplier Management?

• ISO 9001:2008 (clause 7.4.1) also requires it
  – The organization has to ensure that purchased product conforms to specified requirements
  – Supplier controls must be applied
    • The type and extent of control applied to the supplier can be dependent upon the effect of the purchased product on subsequent product realization or the final product
  – Suppliers have to be evaluated and selected based on their ability to supply product in accordance with the organization's requirements
What is AIAG CQI-19?

• The AIAG Sub-tier Supplier Management (CQI-19) is a voluntary guideline developed by AIAG to provide a common process for all Tier 1 suppliers and sub-tier suppliers (tier 2 and below) to use for supplier management.

• It is not targeted for use by automakers with their suppliers
Why CQI-19?

- Automakers and Tier 1 suppliers indicated that management of Tier 2+ supply base is not sufficient

- Resource issues
  - Leadership support:
    - Deming: No understanding of “what must be done” for quality
    - Insufficient headcount assigned
  - Lack of supplier quality expertise
  - Lack of training

- AIAG Advanced Product Quality Planning (APQP) Does Not Address Sub-tier Supplier Management

- Inadequate metrics to drive right behavior

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Why CQI-19?

• Focus is on the base line requirements for “what must be done” for supplier management

• Based on benchmark Tier 1 supplier management processes, e.g. “best practices”

• Provides a common process for automotive sub-tier supplier management

• Addresses “pass through” characteristics (PTC) which are an automaker concern and is not addressed in the automotive APQP process
What are the CQI-19 benefits?

• More effective supplier management processes across the automotive supply chain
  – Supplier Qualification
  – Supplier Evaluation
  – Supplier Selection
  – Supplier Development
  – Problem Solving

• Better use of scarce competent Supplier Quality resources
When Should CQI-19 Be Used?

- New Suppliers
- High Risk Suppliers
  - Need to determine which are
- Suppliers With Unacceptable Performance
- When Customers Require It
When Should CQI-19 Be Used?

1. **Supplier Selection Process**
   - New Supplier? [No] → Conduct Risk Assessment [No]

2. **Follow AIAG Subtier Supplier Management/Development Process**
   - Acceptable? [No] → Conduct Risk Assessment [Yes]
   - Acceptable? [Yes] → [End]

3. **Conduct Risk Assessment**
CQI-19 Supplier Management Process

1. Define Part Requirements (1.1)
2. Supplier Pre-qualification (1.2)
3. Develop Bid List (1.3)
4. On-Site Assessment?
   - NO
   - YES
5. Supplier Assessment (1.4)
6. Review Technical Capability (2.1)
7. Award Business (2.2)
8. Begin APQP with Supplier (3.1)
   - Complete PPAP (3.2)
   - Verify Capacity (3.2)
9. Implement Production Control Plan (3.3)
10. Performance Monitoring, Development and/or Escalation
    - NO
    - YES
11. Results Acceptable?
12. Supplier Development (4.2)
13. Develop Supplier?
    - NO
    - YES
14. Performance Acceptable?
15. Exit or Continue Monitoring
16. Performance Acceptable?
17. NO
18. YES
19. Escalation
20. NO
21. YES
22. Selection
Sub-tier Supplier Requirements
What Minimum Requirements do Sub-tier Suppliers Have to Meet?

- ISO 9001 compliance to the current edition (Certification preferred)
- AIAG Core Tools (SPC, FMEA, MSA, APQP, PPAP) implemented
- Determination / documentation of Special and Pass Through Characteristics
- The Quality Department/Function is an integral part of the Supplier Selection process
- Supplier financial stability is reviewed before supplier selection
  - e.g. Dun and Bradstreet (D&B) risk analysis
What Minimum Requirements do Sub-tier Suppliers Have to Meet?

• ISO 17025 (or equivalent) Accreditation is required for any commercial laboratories used
  – Must be by a recognized body, e.g. A2LA, NAVLAP, L-A-B

• Supplier capacity and operating plan are verified before full production approval
  – For example, Run at Rate

• Supplier metrics include delivery and PPM or an index that includes rejected and/or returned material

• AIAG certification as applicable, e.g. heat treat (CQI-9)
  – Special Processes – where quality can only be checked by destructive testing
Customer-Specific Requirements

• Some customers may have more specific requirements for Sub-tier Suppliers
  – E.g. Ford Sub-tier Supplier Requirements
    1. Control Plans, including Work Instructions, Preventive Maintenance, Product Identification and Traceability
    2. Process Approach
    3. Performance, including Customer Satisfaction, Purchased Product Monitoring and Controls, Problem Solving
    4. Internal Auditing, including system, process, product and auditor qualification
    5. Control of Non-conforming Product
    6. Part Approval, including process monitoring, capability, MSA and change control
    7. Management Responsibility
CQI-19 1.0 Pre-selection Phase

1.1 Define Part Requirements

1.2 Supplier Pre-qualification

1.3 Develop "Bid List"

1.4 Supplier Assessments
1.1 Define Part Requirements

- This process begins with defining Program Part Specific requirements, including (not limited to):
  - Volume - Annual
  - Timing – Model Year, Program Milestones
  - Quality – Special Characteristics, Poka-Yoke
  - Logistics – Transportation Mode, Packaging
  - Technical / Technology
    - Design Record Information
    - New Technology
    - Performance Expectations
  - Process Requirements / Special Processes
  - Material Requirements – MSDS, Recycling, Conflict Minerals
  - Product Traceability
1.2 Supplier Pre-qualification (1 of 2)

- Existing and potential supplier information to be used for supplier qualification process
  - Products Offered
  - New supplier, e.g. to automotive, to customer and/or customer plant, new location of a current supplier
  - New technology, e.g. new to automotive, new to the company
  - Product Experience
  - Locations
  - Capability, e.g. Technology, Process, Project Management, Supplier Management, Design
1.2 Supplier Pre-qualification (2 of 2)

- Capacity, including current amount of business with the organization, machine, line and shared capacity across customers
- Management System Certifications, e.g. quality, environmental, health & safety
- Ease of resourcing, e.g. validation time and cost
- Program Timing, e.g. confirmation that the supplier can meet the specified timing
- Manufacturing Feasibility, e.g. confirmation that the supplier can meet the specified requirements
1.3 Develop “Bid List”

- ISO 9001:2008 also requires that criteria for supplier selection, evaluation and re-evaluation be established

- CQI-19 criteria includes
  - Existing and any past performance data
  - Current Supplier List
  - Risk Assessment Results (see CQI-19 Appendix E)
  - Technical Capability, e.g. design and manufacturing
  - Financial Stability
  - Sustainability
  - Labor Practices, e.g. forced or child labor
1.4 Supplier Assessment

- Customer organizations may need to conduct an on-site assessment of one or more suppliers prior to supplier selection.

- Reasons for an on-site supplier assessment:
  - To determine the capability of a potential supplier.
  - Performance problems with a current supplier.
  - Change in management or ownership of a current supplier.

- At a minimum, a quality management system assessment is completed.
1.4 Supplier Assessment

- Areas for supplier assessment
  - Delivery
  - Logistics
  - Commercial issues
  - Manufacturing
  - Technical competency
  - Technology
  - Customer Service
  - Part Complexity
  - Change Management

- Volume of Business
- Business Continuity Planning
  - disaster preparedness
- Adequate Resources
  - people,
  - competency
  - finances
- Quality History
  - performance on similar parts
  - pass-through problems
CQI-19 Supplier Management Process

1. Define Part Requirements (1.1)
2. Supplier Pre-qualification (1.2)
3. Develop Bid List (1.3)
4. On-Site Assessment?
   - NO
   - YES
   - Supplier Assessment (1.4)

- Escalation
  - NO
  - YES
  - Performance Monitoring, Development and/or Escalation

1. Performance Monitoring, Development and/or Escalation
   - NO
   - YES
   - Supplier Development (4.2)

2. Supplier Development (4.2)
   - NO
   - YES
   - Develop Supplier?

3. Develop Supplier?
   - NO
   - YES
   - Performance Monitoring (4.1)

4. Performance Monitoring (4.1)
   - NO
   - YES
   - Performance Acceptable?

5. Performance Acceptable?
   - NO
   - YES
   - Exit or Continue Monitoring

- Exit or Continue Monitoring
  - NO
  - YES

- Review Technical Capability (2.1)
  - Award Business (2.2)
  - Selection

1. Selection
   - NO
   - YES
   - Review Technical Capability (2.1)

2. Review Technical Capability (2.1)
   - Award Business (2.2)

3. Award Business (2.2)
   - Selection

- Selection
  - NO
  - YES

- Begin APQP with Supplier (3.1)
  - Complete PPAP (3.2)
  - Verify Capacity (3.2)

4. Begin APQP with Supplier (3.1)
   - Complete PPAP (3.2)
   - Verify Capacity (3.2)

5. Complete PPAP (3.2)
   - Verify Capacity (3.2)

6. Verify Capacity (3.2)
   - Implement Production Control Plan (3.3)

7. Implement Production Control Plan (3.3)
   - NO
   - YES

- NO

- YES

- YES

- YES
CQI-19 2.0 Selection Phase

2.1 Review Technical Capability (includes Quality)

2.2 Award Business
2.1 Review Technical Capability

• Before selecting a supplier, a cross-functional team should review the information gathered on the potential suppliers for the particular quote.

• This should include a technical review led by Engineering and include any other applicable technical function.

• Purchasing and Quality functions must be represented in the sourcing process.
2.1 Review Technical Capability

- Can the potential suppliers meet the technical requirements of the specific product(s) they are quoting on?
  - Can they meet the required nominal and tolerances specified?
  - Can they meet the performance specifications?
  - Are their validation test plans adequate?
  - Can they produce the quoted rate, e.g. run at rate?
  - Have their Engineering and Operations Executives provided a signed feasibility study confirming their ability to meet the specified requirements?
2.1 Review Technical Capability

- Part Pass Through Characteristics should be identified and the awarded supplier must include these on the process Control Plan.

- All characteristics that require control must be on the Control Plan:
  - Standard
  - Special
  - Pass Through

- Preventive actions should be taken to eliminate or mitigate the occurrence of any nonconformances on these characteristics:
  - Error or Mistake Proofing (See Glossary)
  - Work Instructions
2.1 Review Technical Capability

- Technical Capability
  - Engineering
    - Resources
      - Headcount based on data, e.g. work load analysis, level scheduling, estimated hours to complete projects in pipeline
    - CAD/CAM/CAE compliant with customer
    - Electronic data exchange process capable
    - Design capable
  - Laboratory
    - Testing capability – laboratory scope
    - Lab is included in certified Quality Management System
    - Commercial laboratories used have ISO 17025 accreditation
    - Measurement Uncertainty known
2.2 Award Business

• The Supplier Selection and Approval Process should be documented

• Sourcing Criteria should include
  – Quality Capability and Performance
  – Warranty
  – Technical Capability and Performance
  – Supplier Capacity

• Sourcing should not be based on price alone

• Suppliers should not be awarded business if Quality function does not agree
2.2 Award Business

- Quality Capability (See CQI-19 Appendix B)
  - There is evidence of compliance with CQI-19 Appendix B requirements
  - Quality & Supplier Quality Resources
    - Headcount based on data, e.g. work load analysis, level scheduling, estimated hours to complete projects in pipeline
  - Supplier Assessment Results
  - Evidence that suppliers assign any corrective actions to the natural owners with authority to resolve them
  - Technical Review completed with evidence of capability to meet specified requirements
CQI-19 Supplier Management Process

1. Define Part Requirements (1.1)
2. Supplier Pre-qualification (1.2)
3. Develop Bid List (1.3)
   - On-Site Assessment?
     - Yes
       - Supplier Assessment (1.4)
     - No
       - Pre-Selection
3. Review Technical Capability (2.1)
   - Award Business (2.2)
   - Performance Monitoring, Development and/or Escalation
4. Supplier Development (4.2)
   - Exit or Continue Monitoring
4. Performance Monitoring (4.1)
   - Performance Acceptable?
     - Yes
       - Begin APQP with Supplier (3.1)
     - No
       - NO
9. Implement Production Control Plan (3.3)
   - Complete PPAP (3.2)
   - Verify Capacity (3.2)

Escalation
- Results Acceptable?
  - Yes
  - NO
- Supplier Development (4.2)
  - YES
- Develop Supplier?
  - NO
- Performance Monitoring (4.1)
  - Performance Acceptable?
    - Yes
    - NO
- YES
- NO

Definition of Performance Acceptable:
- Performance analysis and evaluation is performed for critical aspects, including:
  - Product Quality
  - Process Capability
  - Cost
  - Delivery

Exit or Continue Monitoring
- Results Acceptable?
  - No
  - NO
  - YES

CQI-19 Supplier Management Process

CQI-19 Supplier Management Process

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CQI-19 Supplier Management Process

CQI-19 Supplier Management Process

CQI-19 Supplier Management Process
3.1 Commence APQP with supplier

3.2 Complete PPAP / Verify Capacity

3.3 Implement Production Control Plan
3.1 Commence APQP With Supplier

- The customer organization will have begun the APQP process prior to supplier selection.

- After supplier selection, the supplier will begin the AQPQ process for the awarded customer project.

- Suppliers can implement APQP at appropriate stages regardless of whether they have design or manufacturing capability.

- Use of the APQP Reference Manual (from AIAG) or equivalent is expected, including:
  - Appropriate Control Plan template
  - Checklists (See APQP Appendices)
Pass-Through Characteristics (PTC)

• During APQP, the customer and supplier organizations should identify PTCs

• PTCs are part characteristics that are not controlled or functionally tested anywhere downstream in the supply chain AND would have a significant impact on customer satisfaction or warranty

• A PTC may or may not be designated as a “Special” characteristic

• Examples include
  — Include engine thermostat function, threaded holes, incorrect chemistry for bulk material
Pass-Through Characteristics (PTC)

- Any direct or sub-tier customer and supplier should agree the appropriate action, e.g. error-proofing or other controls to ensure that no defects reach the ultimate customer.

- Document and implement appropriate controls and verify that they are effective.

- Ensure that Quality System Documentation, e.g. procedures, FMEAs, Control Plans and/or Work Instructions include PTCs.

- See CQI-19 for an optional PTC Characteristic Matrix:

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3.2 Complete PPAP & Capacity Verification

- The supplier must complete all the applicable PPAP requirements, regardless of the level of submission requested by the customer, e.g. a Level 1 Submission Request does NOT mean that the supplier only has to complete a Part Source Warrant (PSW)!

- Supplier must maintain or exceed the process capability in production that it was at PPAP approval

- Suppliers are expected to use the AIAG PPAP Requirements (or equivalent) with Sub-tier Suppliers
3.2 Complete PPAP & Capacity Verification

• PPAP approval has been done prior to Capacity Verification but CQI-19 shows that these can be completed together.

• The customer should verify that the supplier can meet the quoted capacity with conformance to all specified requirements:
  – This should be “net” capacity after any scrap, rework, downtime.
  – Production environment to be used for Run at Rate studies.

• Supplier Capacity should be verified at the facility, line and machine levels:
  – Overall plant capacity including all customers must be considered in the part level capacity verification.
3.3 Implement Production Control Plan

- After launch, the supplier must implement the Production Control Plan (C.P.)

- The Pre-Launch Control Plan which should be the most rigorous is to be used for the Pre-production builds

- Part history of similar parts should be used in preparing the Control Plan
Define Part Requirements (1.1) → Supplier Pre-qualification (1.2) → Develop Bid List (1.3) → On-Site Assessment? → YES → Supplier Assessment (1.4) → NO → Escalation

Escalation → Results Acceptable? → NO → Exit or Continue Monitoring → YES → Supplier Development (4.2) → Develop Supplier? → NO → Performance Monitoring, Development and/or Escalation → YES → Performance Monitoring (4.1)

Performance Monitoring (4.1) → Performance Acceptable? → YES → Supplier Development (4.2) → Develop Supplier? → NO → Performance Monitoring, Development and/or Escalation

Performance Monitoring, Development and/or Escalation → Review Technical Capability (2.1) → YES → Award Business (2.2) → NO → Selection

Selection → Begin APQP with Supplier (3.1) → Complete PPAP (3.2) → Verify Capacity (3.2) → Implement Production Control Plan (3.3)
CQI-19  4.0 Performance Monitoring, Development and/or Escalation Phase

4.1 Performance Monitoring

4.2 Supplier Development
4.1 Performance Monitoring

• The customer organization should monitor appropriate supplier quality performance indicators

• There should be defined criteria for acceptable performance

• Potential Metrics include:
  – Parts Per Million (PPM) / incidents / rejections
  – A weighted index for overall quality/warranty
  – Customer Satisfaction
  – Incidents, e.g. “spills”, recalls that adversely impact customers
  – Delivery
  – Capacity Monitoring, including any shared capacity
  – Warranty Performance
  – Supplier Audits
### 4.1 Performance Monitoring

- Customer organizations should meet with suppliers on a regular basis
  - Annually at a minimum
  - Review Supplier Performance

- Supplier Performance monitoring will result in one of these options:
  - Acceptable
  - Not acceptable and requires
    - Supplier development
    - Escalation
    - De-Sourcing
4.2 Supplier Development

- Minimum requirements for Sub-tier Suppliers are specified in CQI-19 Appendix, e.g. ISO9001 compliance

- Customer organizations should specify criteria for which suppliers need to be developed
  - Chronic performance
  - Sporadic issues
  - Capability / Capacity
  - Competition

- Management should ensure that a sufficient number adequate competent supplier development/supplier quality resources are in place
  - Work load analysis based on data, e.g. how many SQEs do you need? How do you know??
  - Criteria for supplier quality resources are to be determined
  - Education, training and/or experience
4.2 Supplier Development

- For suppliers to be developed, the customer organization should work with the supplier to develop and facilitate implementation of a development plan that addresses “systemic” root cause(s) of problems
  - Systemic root cause examples: internal audit, corrective action, design validation, supplier selection
  - A systemic corrective action must involve a change to the system or process, e.g. procedure, work instruction beyond addressing the problem “symptom”
  - See AIAG Effective Problem Solving Guide (CQI-20) for guidance implementing an effective problem solving process
4.2 Supplier Development

- Customer organizations should prioritize suppliers to develop based on supplier risk and supplier performance
  - Also considering the importance of the purchased product to the organization’s product(s)

- Top management is responsible provide sufficient resources for supplier management activity including supplier development (ISO 9001:2008, clause 5.1e)

- Actions taken will result in either supplier performance improvement or “escalation”
4.2 Supplier Development

• The escalation process should be defined
  – Triggers for when it is to be engaged
  – Responsibilities and authorities, e.g. who can solve it?
  – Time periods should be specified re. how long each person involved has to resolve the issue prior to further escalation

• If the issue is not resolved after escalation, then de-sourcing should result
  – See AIAG Effective Problem Solving Leader Guide (CQI -21)
Use Of Certification Bodies & Other Resources

- Where a supplier is third party certified and they ship non-conforming material to a customer on a chronic basis, their Certification Body should be notified
  - This is symptomatic of a corrective action system failure and perhaps other system elements, e.g. internal audit, management review, objectives setting

- The Certification Body should then ensure that the supplier properly determines the root cause(s) and implements corrective action(s) to prevent recurrence of the problems

- CQI-19 is not intended to be an auditable document
Upcoming Webinars

- Customer-Specific Requirements of Select American and European OEMs – TBD, 4th quarter 2014

Contact us for information on how to register for these webinars or to view recorded versions
Upcoming Training

• Understanding AIAG Sub-tier Supplier Management (CQI-19)
  – October 13-14, 2014 – Ann Arbor, MI

These classes can also be delivered at your site. Consulting and Implementation Assistance is also available.
Thank You!

Questions?

info@omnex.com
734.761.4940