IATF 16949: WHAT IT MEANS FOR THE AUTOMOTIVE INDUSTRY

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If you're in the automotive industry or its supply chain and haven't yet started to prepare for the transition to IATF 16949:2016, the clock is ticking.

IATF 16949:2016 was published by the IATF in October 2016. This new standard, which defines the requirements of a quality management system for the automotive industry, will supersede and replace the current ISO/TS 16949:2009.

Organisations registered to ISO/TS 16949:2009 will have until September 2018 to transition to IATF 16949:2016. However, from October 2017 audits cannot be conducted to ISO/TS 16949:2016. Rather, organisations will be required to complete the transition to the IATF standard in line with their current audit cycle.

This whitepaper outlines the key changes, discusses timing requirements for transition and provides practical guidance on preparing for the change.

IATF 16949:2016 AND ISO 9001:2015

- IATF 16949:2016 is aligned with and refers to the most recent version of ISO quality management systems standard ISO 9001:2015
- IATF 16949:2016 is not a standalone quality management standard, but is implemented as a supplement to, and in conjunction with, ISO 9001:2015
- IATF 16949:2016 fully utilises the ISO 9001:2015 structure and requirements
- IATF 16949:2016 fully supports the changes in ISO 9001:2015 with additional requirements that better meet automotive industry needs

IATF 16949:2016: WHAT YOU NEED TO KNOW

The new standard brings with it many important changes, both technical and conceptual, that organisations need to appreciate as they make the transition.

RULES FOR ACHIEVING AND MAINTAINING IATF RECOGNITION

The Rules for Achieving and Maintaining IATF Recognition has been updated and was released on 1 November 2016 as the 5th Edition. Key changes include:

- Incorporating 14 Sanctioned Interpretations (SIs).
- Incorporating as many of the existing FAQs as possible.
- Clarifying the IATF's intentions.
- Making improvements to the scheme.
- Making OEM customer-specified accessory part suppliers eligible to become certified to IATF 16949:2016.
- Eliminating the ability to terminate an audit due to identification of major non-conformance.
- Changing the years of practical experience needed to become a new IATF auditor from six in the past 10 years to four in the past 10 years (changed to 15 years as of 1 July 2017 per Rules 5 SI 1).
- A manufacturing site supplying to a customer requiring third-party certification to IATF 16949:2016 must now include all automotive customers that meet eligibility criteria in the audit sscope.

WHAT IS THE IATF?

- The IATF is the International Automotive Task Force
- The IATF is a member organisation consisting of vehicle manufacturers (BMW Group, FCA US LLC, Daimler AG, FCA Italy Spa, Ford Motor Company, General Motors Company, PSA Group, Renault and Volkswagen AG) and trade associations (AIAG (US), ANFIA (Italy), FIEV (France), SMMT (UK) and VDA (Germany))
- The IATF worked in partnership with ISO in the development of the standard

STRUCTURAL CHANGES

Unlike ISO/TS 16949:2009, the IATF 16949:2016 document contains only the automotive-specific additional requirements. However, the organisation is still required to conform with ISO 9001:2015.

ISO 9001:2015 follows Annex SL, the high-level structure approach common to other ISO standards such as ISO 45001 (OHS) and ISO 14001 (environment). This common framework ensures consistency, applies common language and means ISO 9001:2015/IATF 16949:2016 can easily integrate with these other systems and be fully integrated into your business rather than being a standalone system.

ANNEX SL HIGH-LEVEL STRUCTURE

1. Scope
2. Normative references
3. Terms and definitions
4. Context of the organisation
5. Leadership
6. Planning
7. Support
8. Operation
9. Performance evaluation
10. Improvement

RISK-BASED THINKING

Risk-based thinking takes centre stage in IATF 16949:2016, as it does in ISO 9001:2015. This approach defines risk as the uncertainty of an intended outcome and involves identifying both the risks and opportunities for the organisation, and aligning risk and opportunity with the strategic direction of the business.

IATF 16949:2016 adds specific risk-related requirements to minimise the likelihood of failure during new programme development and to maximise the potential realisation of planned activities.

Risk-based thinking can also be used to prioritise the way processes are managed:

- Contingency planning
- Product safety (new requirements)
- Corporate responsibility (new requirements)
- Customer targets and objectives (process management)
- Supply chain management (many new or enhanced requirements)

THE PROCESS APPROACH

The new standard puts more focus on processes within an organisation – those interacting activities that turn inputs into outputs. It encourages a full understanding of all the key processes in an organisation, where they cause a risk to the business and how the organisation operates as an integrated and complete system.

To manage these processes, the standard uses a Plan-Do-Check-Act (PDCA) approach:

- Plan: Define the processes and scope of the management system.
- Do: Implement the controls required to manage the processes and risks.
- Check: Monitor and measure processes against objectives, policies and requirements.
- Act: Take actions to improve processes.

INTEGRATION OF CUSTOMER-SPECIFIC REQUIREMENTS

To date, original equipment manufacturers (OEMs) in the automotive industry have each produced their own supplier requirements manual, which are included in the quality management system audit. These OEMs have agreed on a series of requirements that are now integrated into the new IATF standard.

While audits have always included these supplier requirements manuals, integrating these common practices as requirements encourages a common approach throughout the automotive industry and aims to reduce the need for extensive customer-specific requirements.

Some examples of areas covered by customer-specific requirements:

- Manufacturing feasibility
- Warranty management
- Control of changes
- Supplier quality management system development
- Total productive maintenance
- Standardised work

FIRST AND SECOND-PARTY AUDITOR COMPETENCY

IATF 16949:2016 adds extra requirements for both first and second-party auditors in relation to competency and training. There must be a process to verify auditor competency and there are specific requirements for system, manufacturing process and product auditors. Required competencies include understanding the process approach and risk-based thinking, applicable customer-specific requirements and core tools, both the ISO and AITF standards, and all steps related to conducting audits.

PRODUCT SAFETY

This new requirement applies to safety-related products, parts and other elements that go into cars that have an impact on safety, such as seatbelts and airbags. The clause highlights the fact that a product should perform to its designed or intended purpose without causing unacceptable harm or damage. It requires organisations to have processes in place to ensure product safety throughout manufacture and the entire product life cycle.

MANUFACTURING FEASIBILITY

While ISO/TS 16949:2009 required a manufacturing feasibility analysis, it did not impose specific requirements. IATF 16949:2016 introduces specific requirements for manufacturing feasibility to mitigate risks before manufacturing the product. The standard reinforces the concept of a 'multidisciplinary approach' throughout the product life cycle, and particularly during design and development planning activities of both products and processes.

WARRANTY MANAGEMENT

This is a new requirement that applies when an organisation is required to provide a warranty for its product. The warranty management process must address and integrate all applicable customer-specific requirements.

DEVELOPMENT OF PRODUCTS WITH EMBEDDED SOFTWARE

IATF 16949:2016 contains new requirements for product validation, warranty and troubleshooting of issues related to embedded software. Companies should look at their outsourced components and identify risks in their current system based on this new focus.

ENHANCED REQUIREMENTS FOR AUDITING OF CORE TOOLS

IATF 16949:2016 enhances the requirements for auditors to audit the core tools and techniques commonly used in the automotive industry. These might include failure modes and effects analysis, statistical process control, measurement systems analysis, production part approval process or advanced product quality planning. Auditors will therefore value a familiarity with these techniques if they are to effectively audit their use. Core tools classroom training is readily available in the market and recommended for those planning to audit to the new standard.

PREPARING FOR IATF 16949:2016

Transitioning to the new standard is an opportunity to improve your quality management systems. As you prepare for IATF 16949:2016, keep the following considerations in mind.

GET THE TIMING RIGHT

Transition audits started in January 2017 and are mandatory starting October 2017. Transition audits will remain in line with the current audit cycle for ISO/TS 16949:2009. Organisations certified to ISO/TS 16949:2009 may not transition at a transfer audit.

For any audit (initial, surveillance or recertification) occurring between 1 January and 30 September 2017, the organisation can choose to have a transition audit to IATF 16949:2016 or have an audit to ISO/TS 16949:2009.

For any audit (initial, surveillance or recertification) occurring after 1 October 2017, and if the organisation hasn't transitioned prior to that date, the transition audit is mandatory at the next regularly scheduled audit.

START IMPLEMENTING: A STEP AT A TIME

Here's a step-by-step guide to implementation:

1. Purchase both standards, IATF 16949:2016 and ISO 9001:2015, along with Rules for Achieving and Maintaining IATF Recognition, 5th Edition
2. Identify organisational gaps to both standards at each manufacturing site that need to be addressed to meet the new requirements.
3. Develop an implementation plan
4. Provide training and awareness for all parties that have an impact on the effectiveness of the organisation
5. Update quality manual and update/develop required procedures and processes
6. Contact your certification body to communicate how and when you wish to transition
7. Understand the transition strategy (obtain the transition strategy for ISO/TS 16949:2009 to IATF 16949:2016 at www.iatfglobaloversight.org)
8. Conduct a full internal systems audit and management review to IATF 16949:2016 prior to the transition audit.

A free gap analysis tool is available: http://go.aiag.org/iatf-16949-gap-analysis-tool

REASONS TO START THE TRANSITION SOONER RATHER THAN LATER

There are plenty of reasons to start your transition sooner rather than later – and to encourage your suppliers to do the same. Automotive products and services are becoming more complex with high risk and high cost, and tightly controlled industry requirements are necessary. The goal of the new standard is the development of a quality management system that:

- Provides for continual improvement
- Emphasises defect prevention
- Includes specific requirements and tools from the automotive industry
- Promotes reduction of variation and waste in the supply chain

The emphasis on risk-based thinking can benefit your organisation by:

- Establishing a proactive culture of improvement
- Enabling compliance activities
- Assuring consistency of processes, products and services
- Improving customer confidence and satisfaction

By coming on board sooner, you'll also be able to reduce the uncertainty around what will happen if too many leave the transition too late. You'll have time to adjust to the many new requirements on managing suppliers and focus on dealing with your supplier management issues.

There could also be a cost advantage – some companies stand to save a little money if an early transition avoids them having two big audits over two years.

Finally, IATF 16949:2016 – implemented and properly managed – will allow your organisation to:

- Receive recognition from regulatory authorities
- Produce safer and more reliable products
- Meet or exceed customer requirements

CONCLUSION

IATF 16949:2016 is an opportunity to move forward and improve consistency and quality at both an organisational and industry level. Timing is now critical – so if you haven't yet started the transition, it's a good idea to move towards implementing the changes now.

Is your transition to IATF 16949 underway? Will your supply chain be ready? Do you need help making yourself audit-ready? Contact SAI Global today to learn more.