

New FMEA Guide. A Universal Supply Chain Management System

V.A. Novikov¹, FSAEI FVT Academy for Standardization, Metrology and Certification (Training) (FSAEI FVT ASMS), Assoc.

Prof. PhD, nva@asms.ru

E.Yu. Barmenkov², FSBEI HE Moscow Aviation Institute (National Research University) (FSBEI HE MAI), PhD

E.B. Bobryshev², FSAEI FVT ASMS, Assoc. Prof. PhD

E.V. Borisova², FSBEI HE MAI, Assoc. Prof. PhD

¹ Vice-rector, Moscow, Russia

² Associate Professor, Moscow, Russia

Citation: Novikov V.A., Barmenkov E.Yu., Bobryshev E.B., Borisova E.V. New FMEA Guide. A Universal Supply Chain Management System, *Kompetentnost' / Competency (Russia)*, 2023, no. 1, pp. 46–52. DOI: 10.24412/1993-8780-2023-1-46-52

key words

FMEA methodology, international standards, risks, performance analysis, product quality

We have reviewed the new FMEA guidelines which is the result of more than three years of collaboration between the Automotive Industry Group, AIAG and the Automotive Industry Association, VDA. Cooperation manifested itself in terms of active opposition to competition and compliance with the constant growth of the world market requirements for the goods (services) quality, as well as optimization of supplies while reducing costs. The new 7-Step FMEA Deployment Technology is a key update to the manual, providing more scope for handling potential risks in a more comprehensible way. The new structured FMEA organization scheme allows you to more effectively investigate technical risks, first of all by providing accurate, up-to-date and complete identification and subsequent documentation. An important advantage of the new edition of the FMEA guide is its versatility. Despite the automotive specifics, the proposed method can be successfully applied both in other manufacturing industries and in the service sector, including healthcare and pharmaceuticals.

References

1. FMEA handbook, 1st ed., *Automotive Industry Action Group*, 2019, 220 P.
2. https://www.ng.ru/kartblansh/2022-04-14/3_8418_kb.html (acc.: 1.09.2022).
3. GOST R 51901.12-2007 Risk management. Failure mode and effects analysis method, Moscow, *Standartinform*, 2008.
4. Piyush K. P., Swathi K. N., Aditya P. H. Optimization of rejection rate of bushes by implementing FMEA, Kishinev, *OmniScriptum Publishing KS*, 2017, 104 P.
5. Carlson C. Effective FMEAs. Achieving safe, reliable, and economical products and processes using failure mode and effects analysis, Chichester (England), *John Wiley & Sons Ltd*, 2012, 357 P.
6. Seliverstov A.S., Postnov V.V., Utkin D.Yu. [i dr.]. Modelirovanie protsedury FMEA: analiz riskov [Modeling the FMEA procedure: risk analysis], *Molodoy uchenyy*, 2019, no. 41(279), pp. 183–185.
7. Analysis of types and consequences of potential failures. FMEA: Reference guide. Chrysler Corporation, Ford Motor Company, General Motors Corporation, Nizhny Novgorod, *RC CD, CMC Priority*, 2007, 86 P.

Как подготовить статью для журнала «Компетентность»

Оригинал статьи и аннотацию к ней необходимо передать в редакцию в электронном виде (на магнитном носителе или по электронной почте kompr@asms.ru). При передаче информации по электронной почте желательно архивировать файлы. В названиях файлов необходимо использовать латинский алфавит. Допускаемые форматы текстовых файлов — TXT, RTF, DOC.

Допустимые форматы графических файлов:

- графики, диаграммы, схемы — AI 8-й версии (EPS, текст переведен в кривые);
- фотографии — TIFF, JPEG (RGB, CMYK) с разрешением 300 dpi.

К каждой статье необходимо приложить сведения об авторах — фамилия, имя, отчество, учченая степень, ученое звание, место работы и должность, телефон служебный и домашний, адрес электронной почты.