TUVINDIA

Independent Safety Assessment (ISA)





Approval bodies are frequently demanding an independent examination of the safety-related design of railway systems by a third party.

TUV India offers an Independent Safety Assessment (ISA) a safety orientated and independent testing based on the principle of double checking. The aim is to gain additional certainity that the necessary safety integrity level has been achieved.

The basis for this checking are the specifications of the European Committee for Electrotechnical Standardization (CENELEC).

They differ from traditional proofs in the case that there is a development of the safety verification from determination of safety to an approach based on probability. That means: the safety of a system according to CENELEC is considered sufficient if the risk originating from the system can be reduced to a certain tolerable level by means of defined system-related and organisational measures.

As railway related systems becomes more complex, traditional methods of proof become more problematic; here the probability-based approach offers significant advantages. For this reason, ISA is not only used within the actual area of application of the CENELEC standards, but in the entire rail sector.

Experts from TÜV NORD - TUV India have many years of experience in Independent Safety Assessment for rail systems and vehicles. Why not take advantage of the additional benefits of our system-based approach and expertise from one source for questions of railway safety and inspection.

TUV India - Inspired by Knowledge.

Our Services:

Safety Assessments/ISA

- According to CENELEC standards DIN EN 5012x
- According to the Common Safety Method CSM (352/2009)
- According to functional safety IEC 61508
- According to national rules and regulations

Review of formal proofs of safety

- RAMS analyses
- FTA
- FMEA/FMECA
- PHA
- Hazard Log
- Safety management audits
- Auditing of the software development processes
- RAMS Plan

TUVINDIA



- Safety V & V Plan
- V & V Reports
- Design Safety Studies & Report
- Safety Case / Reports

Support with official approvals

- EMC
- International approval processes

Benefit to customers

- Protection of people and the environment
- Avoidance of wasted investment
- Safety proofs
- Optimizing of processes
- Higher-level specialist competence of one-source supplier
- Independent inspection according to the current status of national and international requirements

Our Expertise:

- Independence and neutrality
- Specialist independent experts with long-standing experience
- Assessors with ERA-recognition
- Assessors with EBA-recognition
- Accredited inspection body according to DIN EN ISO/ IEC 17020 (DAkkS) and NABCB/IAF
- Notified Body (NoBo) (LUX)
- Designated Body (DeBo)
- Interims DeBo (DE)
- Associated partner of the German notified body

We look forward to sharing our expertise with you.

TUV India Private Limited Registered & Head Office

801, Raheja Plaza-I, LBS Marg, Ghatkopar (W), Mumbai - 400086 T +91 22 664 77000, T 1800 209 0902 E infoindia@tuv-nord.com

W www.tuv-nord.com/in

About Us:

TUV India Pvt. Ltd. (TÜV NORD GROUP) is a customer-focused, innovative, and independent, technical, quality & safety services organization, dedicated to providing future-proof solutions through technological excellence for the success of its customers with the highest level of integrity. With a presence at over 40 strategic locations in India; a branch office in Sri Lanka and Bangladesh; state-of-the-art laboratories at Pune, Bengaluru, Noida and Jamnagar; 100 important countries worldwide and through digital means, we are always connected to you, our esteemed customer, anywhere, anytime.

We are proud to provide increasing levels of services to the best known, largest global and national companies as well as medium and small industries in diverse sectors like Oil & Gas, Petro chemical, Nuclear, Renewables, Infrastructure, Food, Power, Manufacturing, Chemicals, Pharma, Paper, Automobiles, Railways, Aerospace, Defence, IT, Health, Hospitality, Retail, etc.

Over 1400 competent and experienced TUV India experts spread across India and over 14000 TUV NORD experts all over the world, enthusiastically support our clients by providing value-added services in Industry Inspection, European / International Approvals, Management System & IT Certification, Sustainability, Energy Audit, Water Audit, Carbon Services, Building Infrastructure & PMC, Renewable Energy, Food & Packaging Testing, Food Certification & Inspection; Testing of restricted and banned chemicals in Automotive and Electrical & Electronics components and other regulated industries, Product Testing -Electricals, Electronics and Industrial Machinery; Product Certification; Petroleum, Chemicals & Gas Cargo Inspection; Petroleum, Chemicals & Gas Testing; Railway Technology; Engineering, Safety Studies, and knowledge enhancing training programs under TUV India Training Academy.

