

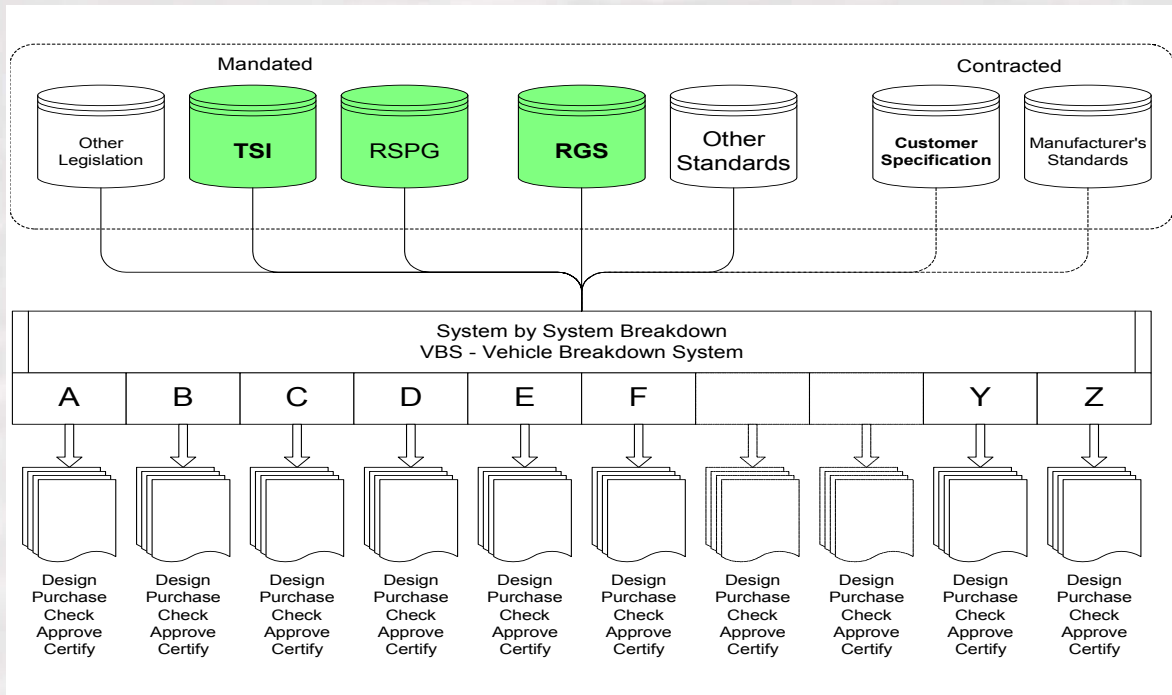
DESIGN REVIEW / DESIGN REVIEW MANAGEMENT

CORREL Rail has a large number of experienced specialists currently operating in the field of new build vehicle mandatory Design Scrutiny. For the last 10 years the Company has developed a team of engineers and a process recognised as a market leader for Design Scrutiny, whilst certifying some of the largest and most innovative T&RS designs currently in service.



This includes 125mph Class 180 DMU vehicles with leading vehicle passenger capacity and Class 390 Pendolino 'Tilt' technology trains for Virgin Trains, as well as the more conventional EMU, DMU and Coach designs.

The CORREL Rail process, as used for the VAB and Notified Body Services was originally developed for Total Design Review Management of new build train projects. As can be seen from the diagram, the databases are linked to the requirements capture output via our unique Vehicle Breakdown System. We already have populated databases for all of the UK mandatory (RGS) and new EU Interoperability Directive requirements. Additional databases can be populated with the other stakeholder's requirements such as customer's specification or manufacturer's internal specifications.



Combining these requirements we can create a set of matrices that disseminate all the requirements down into the systems, sub systems or component levels as required. These matrices are then used to drive the Design Review process, record evidence of compliance and result in a thorough and systematic review of the product or project.

At CORREL Rail we implement the Concept Gateway Design Review as early as possible, where we ask the designers and project team to define *how* they intend to comply with the requirements, to reduce the of non compliance later by omission or ignorance.

At this stage if the project can also identify the documents that it will eventually provide as evidence, we can enter this data onto our matrices and then resort on document reference. This will then enable specific listings of requirements to be generated for individual documents, or suites of documents, thus providing a unique tool for the authoring, checking and approving of such documentation during the design phase.



Review of these documents, when finally presented via Interim and Final Gateway Design Reviews will identify *actual* compliance (or otherwise) with the requirements and lead to a documented trail evidencing the compliance and due diligence of the project.

This process can be implemented as a management level, where we facilitate the customers own engineers to complete a thorough, systematic review process or can be provided as a turnkey package where both review and management are provided

In short the CORREL Rail process assists the design team to focus on the necessary requirements in a structured manner, based upon a unique and effective Vehicle Breakdown Structure. Thus a clear route to vehicle compliance can be logically and efficiently broken down into various actions, implemented, tracked and completed.



The CORREL Rail process also has a series of semi-automatic and manual reporting processes that provide the project with clear statistics regarding progress in each review activity.

