

777 - FMEA during Project FEED to ensure high availability – VSD system as use case

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Abstract: For highest availability a Systems Engineering approach is utilized to ensure that the equipment & system integration meets the requirement for the end-user, whilst working within what is deliverable by engineering contractor & equipment manufacturer.

To mitigate the risk of unplanned process interruptions a project specific “**Failure Mode Effects Analysis**” as early as during “**Front End Engineering Design**” stage is presented to ensure optimized system engineering & integration. The FMEA is done together with the end-user, engineering contractor & equipment manufacturer.

The FMEA leads to updates of the equipment specifications & system design, with less recycle or late design changes. It will also provide valuable information into maintenance philosophy and activities for the equipment, ensuring efficient maintenance practices via condition monitoring and target equipment maintenance.

The FMEA process and the requirements for the review team are defined together with demonstrating how the output is used to address component/failure risk being carried over to operations. A current project for delivery of high power VSD systems is utilized as use case.