



ASQ CRE Prep course

Lesson III. A.

Reliability Design Techniques

The big picture

RELIABILITY DESIGN TECHNIQUES



Lot's of Approaches

Shorter design cycles
Less development time
It's the design's fault

**80% of quality
problems are design
related**



Design Considerations

- **Performance**
- **Environmental**
- **Durability**
- **Diagnostics**
- **Repair**
- **Field service**
- **Thermal**
- **Derating**
- **Structural**
- **Risks**
- **Manufacturability**
- **Software**
- **EMC**
- **Simulations**
- **Reviews**
- **Customers**

A faint, light green map of Australia serves as the background for the slide. The map shows the continent's outline, major cities, and surrounding waters. The text is overlaid on this map.

ISO 9001:2015

System in place to support

- **Planning**
- **Inputs**
- **Controls**
- **Outputs**
- **Changes**

A design and development process

Often a phased process with gate reviews

What is most
important
information?



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Environmental and Use
Factors