Reliability Engineering Solutions

Reliability Centered Maintenance

A large or even a minimal inventory can drive up operational cost. At the same time, how it is allocated across operations can help reduce potential logistical issues. ReliaRisk will show you how numerical modeling analysis can help determine an appropriate inventory level and where it should be located.

PART USE ANALYSIS

MAINTENANCE PLANNING

People will not be more productive than the system they are working in allows them to be. ReliaRisk offers expertise in highly effective maintenance planning in which scheduling is a big component. We will first help you plan maintenance jobs, including defining what needs to be done, how it will be done and time required. Then we will show you helpful scheduling techniques that cover when the job will be performed and who will perform the task.

MAINTENANCE MANAGEMENT

ReliaRisk helps organizations become leaner by making the best use of its maintenance capabilities and effectively performing required maintenance tasks, thereby improving the availability of maintenance support. We will show you how to improve maintenance availability by improving reliability and maintainability, which leads to increased production reliability and decreased production costs.

You can rely on ReliaRisk to:

- Develop and integrate Reliability Centered Maintenance and Reliability Based Asset Management programs to optimize your reliability and maintenance strategy
- Perform full system reliability, maintainability and availability predictions, taking into account complex dependencies on spares, logistics, crews and other resources associated with your operations
- Perform Life Cycle Cost analysis to calculate the expected costs of a system during its lifetime in order to better evaluate your value proposition
- Structure data management systems and seamlessly integrate maintenance plans for strategic optimization
- Offer experience and knowledge in using modeling techniques, such as Reliability Block Diagrams, Fault Tree Analysis and Markov analysis to optimize your maintenance strategy

ReliaRisk provides organizations with knowledge and expertise to ensure asset reliability and maintenance are optimized at the lowest cost and risk. We offer proven success developing Reliability Centered Maintenance and Reliability Based Asset Management programs in which our reliability experts create whole life models, including component reliability based selection, supplier quality programs, maintenance plan optimization, budget forecast, system risk evaluation, resource management, component forecast and reliability based financial risk planning. ReliaRisk specializes in modeling and optimizing existing plant performance to achieve immediate, direct results – both operationally and bottom line.

Our reliability engineers have proven experience in numerous industries, including airline, manufacturing, power, utility, and oil and gas in both startup and existing operations.

ReliaRisk knows that ensuring a system's availability in any industry is no easy task. Lots of areas need to be managed – from scheduling maintenance and inspections to assessing risks of assets (both mechanical and human) and designing effective processes and performance objectives. We offer numerous methods to simplify and streamline operations, including solutions catered to specific industry needs. ReliaRisk integrates operational and people strategies into one by developing team capabilities that sustain operational levels.



Reliability Engineering Solutions

SYSTEM/PRODUCT LIFE CYCLE COST

The cost of a product acquisition represents only a small portion of your actual costs. Costs can grow exponentially just in maintaining the products. ReliaRisk will help you use modeling techniques that will identify potential costs based on your maintenance strategy.

MAINTAINABILITY PREDICTION

ReliaRisk has vast experience in modeling potential scenarios for maintenance strategies and predicting their outcomes. Our work with reliability modeling, component engineering and managerial knowledge will result in a close representation of your operations.

TURNKEY SOLUTIONS

ReliaRisk will develop your ground zero maintainability program starting with a gap analysis that will identify areas needing improvement. We will then help you create a roadmap for implementation and startup. We will even track your progress.

For more information on our products and services, please visit us at www.reliariskllc.com.

Maintainability in Manufacturing



Lean manufacturing, which includes lean maintenance, has become popular in the United States and Europe, especially during the last five years. Simply put, lean manufacturing involves continuous efforts to eliminate or reduce waste in a manufacturing process. It's all about manufacturing and delivering products just in time for customer delivery with fewer resources.

Manufacturing organizations are turning to ReliaRisk to help them become lean in part by reducing maintenance needs and performing required maintenance tasks more effectively. We will show you how lean maintenance will

increase production reliability, thereby decreasing production costs, including maintenance and storage costs.

ReliaRisk engineers will walk you through how we helped companies eliminate raw material losses in manufacturing and meet just-in-time delivery schedules, resulting in big bottom-line benefits. We are ready to repeat these experiences with you.

Service Features and Benefits

- Rank assets based on potential risk to identify those assets that are critically important to the system
- Model the reliability and availability of your system in order to identify areas of improvement and increase operational productivity
- Optimize maintenance plans using Reliability Centered Maintenance and/or risk based inspection principles
- · Reduce overhead costs and minimize unscheduled downtime
- Minimize future costs by focusing maintenance resources on assets with the highest risk potential
- Avoid unnecessary maintenance tasks and achieve increased efficiency by developing an effective maintenance program
- Support management decision-making by measuring your operational availability and understanding contributing factors to maintenance costs
- Reduce costs by implementing an analytics-driven spare part inventory management system
- Identify "bad actors" and drive improvement in the reliability and maintainability of your systems

SERVICES AVAILABLE

- Modeling Systems for Availability Analysis
- Reliability of a System and Life Cycle Cost Analysis
- Reliability Growth Analysis (Duane or Crow Model)
- Organizational Development
- Preventive Maintenance Optimization
- Spare Part Management

From Data to Wisdom!



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