

Reliability Policy

You need a reliability policy for decisive actions in preventing process failures. What does your reliability policy say?

Most companies have a **safety policy** which says:

We will have an accident free work environment.

This was considered impossible 40 years ago.

Most companies have a quality policy which says:

We will ship defect free products.

This was considered impossible 20 years ago.

Most companies have an environmental policy which says:

We will have no environmental spills or releases.

This was considered impossible 2 years ago.

Most companies have a [reliability](#) policy which says:

Yes, you guessed it—the slate is blank on the issue! Establishing a formal reliability policy is leading edge material for forward thinking organizations.

Consider this for your reliability policy:

We will build an economical and failure free production process which will operate for 5 years between planned outages.

The motivator for a reliability policy is to reduce the high [cost of unreliability](#), make quality products, and provide on time deliveries in processes without failures. We have found accepting accidents is an unenlightened and costly way to do business. We have found accepting low quality allows our competitors to snare our markets which make our costly way of doing business even more expensive. We have found accepting environmental problems is a poor way of doing business that costs us and society more money. We must learn that accepting process failures is also a poor way to do business. This is your wake-up call for considering reliability as a policy statement for avoiding the high cost of failures.

Many reliability directives only address uptime or availability issues (which are not truly reliability issues) rather than the absence of failures (which is a reliability issue)—[availability ≠ reliability](#). Furthermore, many reliability directives are misdirected toward fast repairs of failures which is a [maintainability](#) issue for Maintenance Engineers. Think of this analogy: Maintenance Engineers (who make fast repairs) are to Fire Fighters in a local Fire Department as Reliability Engineers (who prevent failures) are to Fire Marshals in a local Fire Department who are dedicated to preventing fires. To achieve a failure free process requires starting with a modern philosophy for achieving exceptional

financial results by purpose rather than following the same old tired strategy which produces failures, high cost, and delays.

Reliability is an engineering discipline for applying scientific know-how to a component, assembly, plant, or process so it will perform its intended function, without failure, for the required time duration when installed and operated correctly in a specified environment. Reliability terminates with a failure—i.e, unreliability occurs. Business enterprises observe the high cost of unreliability. The high cost of unreliability motivates an engineering solution to control and reduce costs. Among living organisms, reliability would be studied in terms of survivors. Unreliability would be studied in terms of mortality.

We are confined by our own self imposed limitations, which prevents us from reaching for failure free processes and limit us from establishing a failure free process. The only thing we have to fear is our own fear of setting a goal for a failure free process and then making the goal occur.

Six sigma programs work to reduce variability. Reliability programs work to eliminate failures. They two initiatives work together for reducing costs and making processes more predictable. The objective of a reliability policy is to prevent potential failure problems in the formative stage which will reduce product cost, avoid shipment delays, and promote the safety and welfare of employees without jeopardizing the community or environment.

A reliability policy will be judged successful if the life time cost of actions and alternatives in selecting, using, and maintaining both equipment and processes are considered for successfully completing the assigned missions for a long period of time while reflecting good business judgment along with balancing the need for producing the desired return on assets for the stockholder.

Top Management of the company is responsible for issuing reliability policy. The reliability policy must apply to the entire staff of the Company to influence cost effectiveness, on time product delivery, and utilization of the Company's assets to achieve the expected financial results expected by the stockholders. A reliability policy will required construction of new plants and facilities to consider alternatives and justification of new equipment and processes from the [life cycle cost](#) perspective rather than just cheap first cost. Who is responsible for what:

1. The CEO is responsible for ensuring a reliability policy is written and applied throughout the business by all managers under their administrative directive and the CEO is responsible for setting the guidelines for financial and engineering measures.

2. The Engineering/R&D Executives are responsible for ensuring the policy is implement by all elements of systems engineering, design engineering, project engineering, pilot plant engineering, and test engineering.

3. The Manufacturing Executives are responsible for ensuring the corporate reliability policy is carried out by the materials and procurement functions, industrial engineering functions, manufacturing engineering functions, operations functions, and

maintenance functions.

4. The Quality Assurance Executives are responsible for dissemination of the policy and conducting the annual review along with auditing for compliance to the spirit of the policy plus making recommendations to the CEO concerning continued relevance, application, and effectiveness.

5. The Human Resources Executive are responsible for ensuring that all new employees are indoctrinated into the purpose and implementation of the reliability policy as part of the operation's mission, goals, operations, and priorities.

6. The Financial Executives are responsible for ensuring that meaningful financial alternatives are considered for achieving the failure free objectives to insure productive use of the company's assets rather for achieving the lowest long term cost of ownership for achieving a failure free process.

Reliability issues start at the top of the organization. Reliability issues must be corrected from the top. Top management must set the correct performance standard for a breakthrough to a new performance which will result in cost effective output from failure free processes. The performance standard requires vision not blindly following costly old and ineffective paths. Excellent implementation of a reliability vision can provide a visionary path to lower costs and better performance if inventive leaders have the courage to cut the [Gordian Knot](#) by adopting a philosophy of a failure free environment. Visionary leaders can be first off the mark for a breakthrough effort to move to a higher performance level but it requires an aggressive approach rather than a race with the lemmings into the sea of perpetual abysmal results as we've been recording.

You can download a short article: [Reliability Policy-Do You Have One?-Why Not?](#). Also you can download a [PDF file of this article](#) (240KB).

Simple Tools



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