

ENERGY'S QUALITY COMMITMENT



Quality Management Implementation Guidelines

United States
Department of Energy

July 1997

The DOE Mission

To provide Americans with a secure and reliable energy system that is environmentally and economically sustainable, to be good and careful stewards of the Nation's nuclear weapons and the cleanup of our own facilities, and to ensure that the United States retains its leadership in science and technology.

Our Core Values

The Department will succeed only through the efforts of its people. How well we perform individually and collectively is a function of the beliefs and values that motivate our behavior. The employees of the Department of Energy have chosen the following core values to serve as guideposts and our conscience in fulfilling our mission and achieving our vision.

1. We are customer-oriented.
2. We value public safety and respect the environment.
3. People are our most important resource.
4. Creativity and innovation are valued.
5. We are committed to excellence.
6. DOE works as a team and advocates teamwork.
7. Leadership, empowerment and accountability are essential.
8. We pursue the highest standards of ethical behavior.

ENERGY'S QUALITY COMMITMENT



Quality Management Implementation Guidelines

United States
Department of Energy

July 1997

From the Secretary



The Department of Energy is on a secure course to achieve excellence in the areas of energy resources, environmental quality, national security and science and technology. We are proud of the significant progress we have made in the way we do business, but improvement must be continuous.

The President and the Congress have challenged us to create a government which “works better and costs less.” Through such initiatives as the National Performance Review, the President’s Performance Agreements, the Government Performance and Results Act, and the Blair House Papers, we have a blueprint to guide us in turning this challenge into reality.

These initiatives embrace the tenets of quality management. They involve everyone (federal employees, contractors and laboratories) in the process of improving how work is done to meet customer expectations and how to measure and produce results which are aligned with our strategic objectives. But getting it done is up to us. We must continue our journey with a clear purpose to succeed.

These updated *Quality Management Implementation Guidelines* are a tool to help us build upon the significant results we have achieved as well as provide a solid foundation for those organizations that are just beginning the quality journey.

I look forward to working with you as we continuously strive to make the Department of Energy a leader in management efficiency and excellence.

A handwritten signature in black ink, which reads "Federico Peña". The signature is written in a cursive style.

Federico Peña
Secretary of Energy

Table of Contents

Preface	v
The Energy Quality Initiative: Beginning Foundations.....	1
Strategic Planning	1
Personal Behavior	1
Quality Management	2
Key Attributes of a Quality Organization	3
The Quality Journey	5
Phase 1: Introduction	6
Phase 2: Development	7
Phase 3: Integration	8
Commit to Lead	9
Develop the Organization's Mission, Vision & Strategic Plan	10
Develop A Plan for Improvement	14
Establish A Quality Infrastructure	14
Guidance & Resources	15
The Quality Management Infrastructure	15
Infrastructure Groups	16
Train Employees	18
Training Needs Analysis	19
Selecting Suppliers	20
Creating A Training Plan	21
Evaluating Training Results	22
Manage Process Quality	22
Continuous Improvement	23
Quality Management and Quality Assurance	23
The Plan-Do-Check-Act Cycle	24
Reengineering	24
Focus on Results	25
Why Measure?	25
How to Implement Measures	26
Types of Measurements	27
Communicate, Communicate, Communicate	28
Employee Involvement	29
Employee Recognition	29
Publicize, Communicate, and Celebrate Successes	31

Lessons Learned	33
Employee Involvement	33
Training	34
Culture Change	35
Infrastructure	36
The Department of Energy's Quality Initiative	37
Transformation: Aligning for Progress and Results	38
Department of Energy's Quality Infrastructure	39
Organizational Assessment	46
Quality Brings Results: A Sampling of Achievements	47
Linkages: Results Act and Blair House Papers	48
Appendix 1 – Terminology	49
Appendix 2 – Some Recommended Readings and Web Sites	55
Appendix 3 – Team Checklist	61
Appendix 4 – Effective Meetings	63
Appendix 5 – Reader Response Sheet	65

Preface

"I will continue the effort to make the Department a leader in management efficiency and excellence."

Secretary Federico F. Peña

These *Guidelines* were designed to help managers and supervisors in the Department of Energy complex bring total quality management to their organizations. Because the Department is composed of a rich mixture of diverse organizations, each with its own distinctive culture and "quality" history, these *Guidelines* are intended to be adapted by users to meet the particular needs of their organizations. For example, for organizations that are well along on their quality journeys and may already have achieved quality results, these *Guidelines* will provide a consistent methodology and terminology reference to foster their alignment with the overall Energy quality initiative. For organizations that are just beginning their quality journeys, these *Guidelines* will serve as a startup manual on quality principles applied in the Energy context. Note that the terms "Department of Energy," "Department," "Energy," "Energy Quality Team" and "Energy complex" are used interchangeably in this document; each refers to the totality of headquarters and field elements, including all federal employees and contractor personnel. The terms total quality management, quality management and quality are used interchangeably throughout this document.

A Short History^a

While quality management in the United States has taken root only during the last decade or so, the quality movement dates at least to the 1920s when Walter Shewhart of Bell Laboratories developed a system for measuring variance in production systems, known as statistical process control. Statistical process control is still used to help monitor consistency and diagnose problems in work processes. Shewhart also created the Plan-Do-Check-Act cycle, which applies a systematic approach to improving work processes. When the Plan-Do-Check-Act cycle is applied on an ongoing basis, it results in continuous process improvement.

During World War II, the War Department hired W. Edwards Deming, a physicist and Census Bureau researcher, to teach statistical process control to the defense industry. Quality control and statistical methods were such critical elements in the war effort that they were classified as military secrets. However, after the war most U.S. companies stopped using them. While quality control and statistical methods had a brief resurgence in the 1950s and 1960s, companies that continued using them consigned them to quality control departments focusing on production quality and inspection.

Across the ocean, the U.S. occupation forces in Japan invited Deming to help Japan with their post-war census; he was also invited to lecture business

^aThe first part of this historical perspective is taken primarily from *Excellence in Government* by David K. Carr and Ian D. Littman, Coopers and Lybrand, 1993.

Preface

leaders on statistical process control and quality. He ended up teaching the Japanese much more; his lectures became the genesis of the modern quality philosophy. The Japanese, like the Americans, had previously applied quality control methods only to production and inspection. Two other American experts, Joseph Juran and Armand Feigenbaum, also worked with the Japanese. Juran helped them expand the methods to all functions in an organization, and Feigenbaum stressed the need to involve all departments of a company in the pursuit of quality, something he called “Total Quality Control.” Juran also taught that quality should be defined as “fit for customer use.” This concept changed the idea of quality from simply making products that conformed to certain technical specifications to looking at the entire product life cycle, focusing on meeting customer expectations.

The Japanese expanded Juran’s customer concept to include internal customers, those people within the organization who depend on the output of other workers. Kaoru Ishikawa enlarged Feigenbaum’s ideas to include all employees, not just department managers. The Japanese also began to study the work of American behavioral scientists such as Abraham Maslow (the hierarchy of needs) and Douglas McGregor (Theory X/Theory Y). Basing his work partly on McGregor’s, Ishikawa helped to create quality circles: small teams of managers, supervisors, and workers trained in statistical process control, the Plan-Do-Check-Act cycle, and group problem solving. The quality circles were the original models for Process Improvement Teams. In the United States Quality Circles were less effective because teams were not empowered to effect change.

The result of applying these techniques was a constant flow of new ideas for improvement coming from everyone in the organization, based on objective and scientific study, and all aimed at satisfying customers. This is the core of quality management. The Japanese added better and faster methods of product planning, and they redefined their relationships with their suppliers into what are called “vendor partnerships.” By the 1970s, most large Japanese companies had adopted what Ishikawa called “company-wide quality control,” the ultimate result of which was that the term “Made in Japan” became synonymous with world-class quality products.

The Japanese success caused American manufacturers to search for the secrets of that success, and they found Deming, Juran, and Feigenbaum. However, many companies were slow to adopt their ideas. As a former Ford executive recalls, “I distinctly remember some of Dr. Deming’s first visits to Ford. We wanted to talk to him about quality, improvement tools, and what programs would work. He wanted to talk to us about management, culture change, and senior management’s vision for the company. It took time for us to understand the profound cultural transformation he was proposing.” Historians

Preface

generally mark the latter half of the 1980s as the true start of the American quality renaissance. About 1986, people began to understand that Deming's "profound change" meant a comprehensive approach to quality.

In the early 1990s, the Federal Government's overall performance was widely challenged. Enhanced operational efficiency and cost effectiveness were demanded through reducing the size of government, improving agency focus on the public as "customers" and becoming more efficient by implementing "performance-based" management concepts from industry. Pressure is being put on the Department's ability to demonstrate that the quality of its science and technology cannot be surpassed. The challenge is to demonstrate that this level of quality is being achieved cost effectively.

Vice President Al Gore has been a leader in initiatives to "reinvent" government. He has lead efforts to review all federal agencies, to make recommendations for streamlining bureaucracy and cutting costs and has piloted an effort to make the government performance oriented. The National Performance Review (NPR), created by President Bill Clinton on March 3, 1993, is the Clinton-Gore Administration's initiative to reform the way the federal government works. The Phase I report, *Creating a Government That Works Better and Costs Less*, was presented to President Clinton on September 7, 1993.

Shortly after NPR's 1993 report was released, a task force started implementation of a series of over-arching initiatives. These efforts included training federal employees about customer service, creating reinvention laboratories to pilot innovations, promoting the streamlining of headquarters functions and staffing. NPR recommended cross-agency councils such as the National Partnership Council, the President's Management Council, and the Government Information Technology Services Working Group.

As part of the shift to greater accountability for results, the President and heads of major agencies have signed performance agreements as required under the Government Performance and Results Act (GPRA, Public Law 103-62). The Office of Management and Budget (OMB) is leading the development process and is using the budget process to focus on performance goals and measures that will be needed for full GPRA implementation. As of December, 1996 agency heads of the Departments of Energy, Veterans Affairs, Transportation, and Housing and Urban Development had signed performance agreements. All agencies are developing goals, objectives, and performance measures as required by the GPRA.

DOE's leadership in strategic planning and in performance agreements between the Secretary and the President, and in implementing performance-based contracts, is contributing to setting the standards for the Federal Government.

Preface

The Department of Energy's Performance Agreement between the Secretary and the President for FY 1995 was the best in class and was highlighted in the NPR's September 1995 report. The Department's agreement had definitive commitments, measures of success for all business lines and critical success factors, developed in the Strategic Plan, and signatures by all assistant secretaries and office directors committing to fulfill their responsibilities. The Department built on its 1995 success by being the first agency to have its FY96 agreement signed. Under each goal and critical success factor, the Department has established commitments that identify the most significant outcomes. In the FY 97 Agreement, there were approximately 70 commitments and 180 measures of success.

The Department developed and published a Strategic Plan *Fueling a Competitive Advantage* in April 1994. This Plan provides the Department and its contractors a roadmap for aligning priorities and systems to achieve its national goals. It is a blueprint that calls for teamwork, customer and stakeholder focus, partnerships with industry and other federal agencies supported by a system of performance measurement. This strategic vision has helped to improve the alignment of federal and contractor workforces with the Department's goals (a revised Strategic Plan will be forwarded to the Office of Management and Budget in September 1997.)

In December 1994, 40 career employees from throughout the Department were selected to work full-time on the Strategic Alignment Initiative. Under the direction of the Deputy Secretary, this team received training in how the private sector had implemented successful restructuring efforts and conducted interviews and surveys aimed at examining how the Department conducted its business. This process provided essential inputs to the Department's Alignment and Downsizing package: out of 39 recommendations that were presented, 24 were adopted in whole or in part, 13 would receive further consideration during the implementation process, and two were rejected. The package also was derived from other analytical work aimed at helping deliver on the Department's commitment of \$14.1 billion in deficit reduction over the next five years.

The four guiding principles, consistent with the National Performance Review's tenets of putting customers first, cutting red tape, getting back to basics, and empowering employees to get results are: (1) use fewer resources by eliminating redundancies, reducing the workforce, and streamlining processes, (2) reduce overhead expenses so that we deliver more mission activity for less money, (3) discard old work and privatize, eliminate, or transfer functions that can be performed better elsewhere, and (4) eliminate unnecessary and redundant regulations and red tape that impose excessive cost burdens on the Department's performance of its missions.

Preface

On March 15, 1994 the Secretary established the Executive Committee to implement the Contract Reform Initiative. Under the direction of the Deputy Secretary, the Committee composed of Principal Assistant Secretaries and other Senior Officials, established overall goals and objectives, defined basic policies and principles, assessed progress and effectiveness, and assisted in removing barriers to progress. Contract Reform Principles were: (1) Increased competition, (2) Protection of the Worker, the Public, and the Environment, (3) Diversity, (4) Results-Oriented Statements of Work, (5) Performance Objectives and Measures, (6) Performance Based Incentives, (7) Greater Financial Accountability, (8) Improved Financial Management, (9) Increased Use of FAR-Based Cost Principles, (10) Increased Use of Fixed-Price Contracts, and (11) Cost Reduction.

The DOE has implemented new policies and programs to accelerate management improvements to achieve the policy and legislative initiatives discussed. These include improved use of management principles such as those embodied in quality management, reduction of prescriptive “how to” approaches common to large bureaucracies, award and incentive programs, and performance measurement and self-assessment. These efforts have been implemented across Headquarters, the Field and Contractors.

The Department's Quality Transformation Plan (QTP), *The Quality Transformation: A Catalyst for Achieving Energy's Strategic Vision*, articulates DOE's six corporate quality management goals:

- 1) There is effective use of performance measurement based on regular assessment of Energy operations using the Presidential Award for Quality, the Malcolm Baldrige National Quality Award, or equivalent criteria.
- 2) All managers champion continuous quality improvement training for all employees through planning, attendance, and active application.
- 3) The Department leadership has provided the environment in which employees are enabled to satisfy customer requirements and realize their full potential.
- 4) The Department's management practices foster employee involvement, development and recognition.
- 5) The Department continuously improves customer service and satisfaction, and internal and external customers recognize Energy as an excellent service provider.
- 6) The Department has a system which aligns strategic and operational planning with strategic intent, ensures this planning drives resource allocation, provides for regular evaluation of results, and provides feedback.

These six goals align with the Malcolm Baldrige Quality Award criteria.

Preface

The QTP will be integrated into the revised Department of Energy Strategic Plan.

Further Information

If you have questions about anything in this document, contact the Office of Quality Management, (202) 586-5363.

Reader Response Sheet

Tell us how we can make this document of more value. Respond through the Reader Response Sheet in Appendix 5.

The Energy Quality Initiative: Beginning Foundations

"We intend to redesign, to reinvigorate the entire national government."

President Bill Clinton

The Energy Quality Initiative consists of three components: strategic planning, personal behavior, and quality management initiatives. These three elements are depicted schematically in the diagram, which shows that when all three are operating together successfully, organizational excellence is the result.



Strategic Planning

Strategic planning aligns an organization with the future. The Department's strategic plan, published in April, 1994, provides the overall policy, goals, and direction for all future activities. Its focus is on results, critical success factors, and measures of performance. Individual organization operating plans that align with the Department's strategic plan will be created.

The 1997 revised Strategic Plan will strive for clear and direct linkages throughout the organization. It will be aligned with the Secretary's Performance Agreement with the President.

Personal Behavior

Organizations adopting quality management principles have found that achieving significant results generally requires a change in the prevailing culture of the organization, as evidenced by the way people treat each other, their customers, and suppliers. This change is usually gradual, subtle and more difficult if leaders don't model desired behaviors. The Department's statement of Core Values defines its intended future culture; it is desired that these values be adopted by employees throughout the organization. To foster these important culture

The Energy Quality Initiative

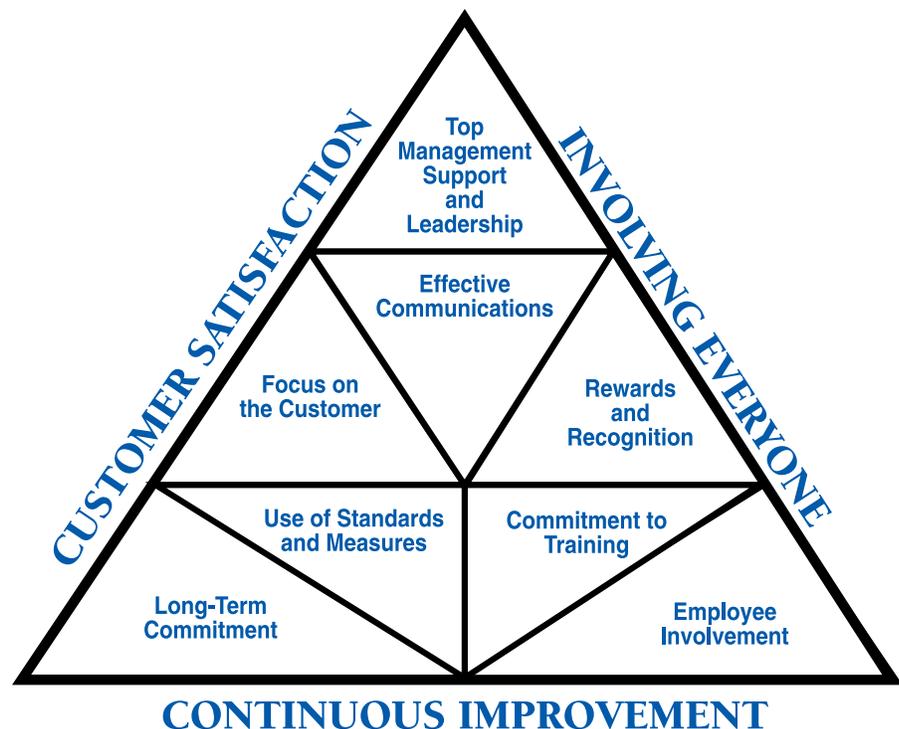
changes, the Department encourages managers, supervisors, and others to improve their interpersonal behavior skills and competencies to reinforce the core values by taking courses in interpersonal behavior and change management.

Quality Management

Quality management is a way of doing business which continuously improves products and services to achieve increasing levels of customer satisfaction. In the book *Excellence in Government*, it is described as:

“... involving everyone in an organization in controlling and continuously improving how work is done in order to meet customer expectations of quality.”

The principal elements of quality management are shown in the triangle diagram. Quality covers everything of value to a public service organization and its customers, including the physical quality of the products and services, productivity, efficiency, ethics, morale, safety, and wise use of resources. The remainder of this document focuses on quality management principles and their implementation in the Department of Energy.



Key Attributes of a Quality Organization

*"Begin with the end
in mind."*

Stephen Covey

Attributes that describe an organization operating according to quality management principles may be found in the criteria for the widely recognized quality awards: the Malcolm Baldrige Award (awarded to private companies) and the President's Quality Award (awarded to Federal Agencies). The criteria are virtually the same. The attributes sought in both cases are summarized in this section. The criteria provide a valuable measurement tool for quantitatively measuring how well an organization is performing. The criteria form the basis for the Department's Self-Assessment Program, required of all Federal Departmental Elements, as well as the basis for recognition under the Department of Energy Quality Award, which is open to both Federal and Private sectors of the Department. Departmental elements have made substantial progress on the Quality journey.

The Criteria are embodied in seven categories:

1. **Leadership** - examines executives' personal commitment and involvement in creating and sustaining an organizational excellence vision and customer focus orientation as well as clear and visible quality values. It also examines the way the vision, values, and customer focus orientation are integrated into the management system, labor relations, and external partnerships and the way they are reflected in addressing public responsibilities.
2. **Strategic Planning** - examines the organization's planning process and how key quality requirements and customer focus are integrated into overall planning. Both the organization's short-term and long-term plans are examined as well as how quality and operational performance improvement goals are deployed to all work units.
3. **Customer and Market Focus** - examines the organization's knowledge of external and internal customer requirements and the way relationships with customers are established and maintained. It also examines the methods used to determine customer satisfaction and enables data to drive decision making.
4. **Information and Analysis** - examines the scope, management, and use of data, information, and measures and how they are used to drive quality and operational performance improvement. It also examines the adequacy of the organization's data, information, and analysis system to support improvement of products, services, processes, and customer satisfaction.

Key Attributes of a Quality Organization

5. **Human Resource Development and Management** - examines how the entire work force is enabled to develop its full potential and to pursue quality and operational performance improvement goals. It also examines efforts to build and maintain an environment for work force excellence, which is conducive to increased involvement and personal and organizational development.

6. **Process Management** - examines the systematic processes that the organization uses for continuous improvement of quality and operational performance. It also examines the design and management of process quality for all work units, the management of internal customer-supplier relationships, supplier and intermediary quality, quality assessment and quality assurance.

7. **Business Results** - examines the organization's trends and quality levels for products and service, operational performance, business processes and support services, supplier and intermediary quality, and comparison/benchmarking data, as well as the trends and current levels of customer satisfaction.

Detailed criteria for the Malcolm Baldrige National Quality Award is available from the National Institute for Standards and Technology (NIST) and criteria for the President's Quality Award is available from the Office of Personnel Management (OPM). Information is also available on the World Wide Web.

Websites:

Malcolm Baldrige National Quality Award
www.quality.nist.gov

President's Quality Award
www.npr.gov

The Quality Journey

"Quality is not an act, it is a habit."

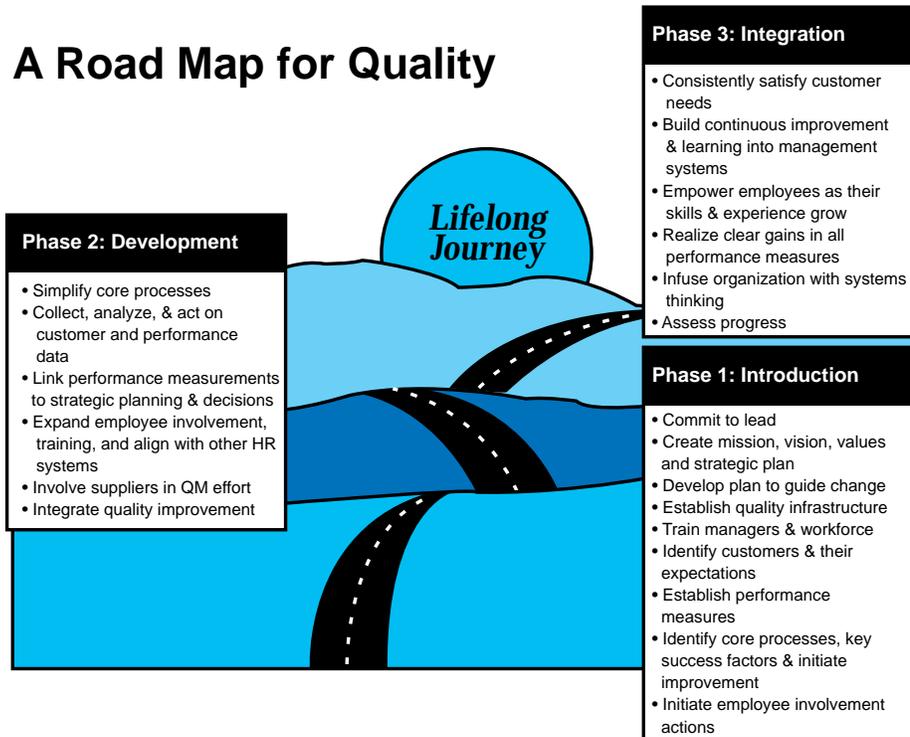
Aristotle

As in any journey, the quality journey must begin by determining the starting point, then defining the destination, and finally mapping the route. These *Guidelines* recognize that the quality journey's progress within the organizations and elements of the Department are at various stages. One way to characterize the maturity of the quality effort is to define three phases for fully implementing a quality management environment and then baseline the organization to determine how much progress has been made in each category. The road map below illustrates the three phases and their components. As a general rule, Phase 1 could be completed within the first year; Phase 2 may take two or more years; and Phase 3 could take several more years to achieve fully (in reality, the process is continuous).

Many Energy organizations have already begun the quality journey and are close to achieving a quality management environment. Some organizations have institutionalized a quality culture. The road is often filled with ruts and potholes. Most organizations encounter the rough spots, but the successful ones persevere despite the inevitable problems. Once a quality management environment is achieved, maintaining continuous improvement is a never-ending challenge.

Begin the journey by studying the organization. Analyze where the organization is according to the characteristics in each phase. With that information as a baseline, use these *Guidelines* to move to the next phase.

A Road Map for Quality



The Quality Journey

Phase 1: Introduction

- Commit to lead
- Create mission, vision, values and strategic plan
- Develop plan to guide change
- Establish quality infrastructure
- Train managers & workforce
- Identify customers & their expectations
- Establish performance measures
- Identify core processes, key success factors & initiate improvement
- Initiate employee involvement actions

Phase 1: Introduction

* ***Commit to lead.*** The key to success at the beginning and at all later stages of the quality journey is the leadership of the senior managers in each organization. Their commitment includes active participation and practice of quality principles. The term “*Walk the Talk*” is a good description of the role of leadership not only endorsing the use of quality management but practicing it every day.

* ***Create a mission, a vision, values, and a strategic plan for the organization.*** The mission, vision, and values should be aligned with those of the Department and should reflect the organization’s unique culture.

- The mission statement describes what the organization does, how it does it, and for whom.
- The vision describes what the organization is striving to be in the future.
- The values set forth how the people in the organization will treat each other, their customers, and their suppliers as they accomplish their mission.
- The strategic plan defines the direction and actions that the organization will take to fulfill its mission and vision. Using the Department’s strategic plan as a point of departure, determine measurable goals and results-based strategies for the organization. The strategy consists of a group of actions and associated schedules to achieve the desired goals.

* ***Develop a plan to guide change.*** The initiation of quality processes requires some forethought and planning. A written plan for change is also a communication tool for management and the work force. The planning process should involve participation from all elements in order to achieve commitment and buy-in.

* ***Establish a quality infrastructure.*** The plan for organizational quality defines the necessary infrastructure for the quality activities. Wide latitude exists in the configuration that works best for any organization, but commitment of resources to the quality processes is necessary.

* ***Train managers and the work force.*** Training in quality principles should begin as soon as possible, starting with the leadership of the organization and ultimately extending to all employees.

The Quality Journey

* **Identify customers, define their needs and expectations, and develop feedback systems.** An essential element in delivering quality is to identify each internal and external customer's needs and expectations and provide feedback systems to guide the improvement process on an ongoing basis. In addition to such formal systems as customer and work force surveys, the internal quality system needs to include and make known to all staff a process for inputting feedback, innovative ideas, or system problems needing attention. Customer service advocates in each organization should receive training to assist in design and implementation in this area.

* **Establish performance measures to track results.** Performance measures should be identified to monitor progress against the strategic plan, adjusted as necessary, based on ongoing results. They should be quantitative and should measure outcomes as well as outputs.

* **Identify core processes and key success factors.** Determine the key business processes and identify the suppliers providing input and customers receiving output from each process, with appropriate feedback. Analyze each schematic to determine points of vulnerability, or opportunities for improvement and identify key success factors. Some opportunities may only require management action to cause the beneficial change in specific processes. Others may require formation of an improvement team, but such items should focus initially on obvious opportunities to begin immediate improvement.

* **Initiate employee involvement actions.** As soon as possible, communicate regularly and openly with employees. Flag opportunities for participation. Champion teamwork for problem solving, making sure that timely team training is provided. Also, consider conducting an employee attitude survey to identify employee perceptions of problems in the workplace that need to be addressed and establish an open process for addressing and communicating action taken on such problems.

Phase 2: Development

- Simplify core processes
- Collect, analyze, & act on customer and performance data
- Link performance measurements to strategic planning & decisions
- Expand employee involvement, training, and align with other HR systems
- Involve suppliers in QM effort
- Integrate quality improvement

Phase 2: Development

* **Simplify the core processes.** Map core processes to identify current steps. Eliminate unnecessary steps. Think of alternative processes that are less complicated. This simplification will lead to maximum performance within existing resources.

The Quality Journey

* ***Collect, analyze, and act on customer and performance data.*** Devise and implement additional improvement methods to identify customer needs and expectations. In some cases, anticipating future customer needs is essential. Satisfying the customer's needs is the central objective. Both internal and external customers need to be considered. Data collected on customer needs and expectations should be analyzed to identify the greatest needs and opportunities for improvement and to implement those improvements.

* ***Link performance measurement to strategic planning and decisions.*** Strategic plans describe what is important. Performance measures should measure these important things. A critical few performance measures should be meaningful to everyone. The results of performance measurements should be used to guide subsequent strategic planning and decisions.

* ***Expand employee involvement and training; align with other human resource systems.*** Enable employees to perform their jobs more effectively by identifying and removing unnecessary obstacles. Train employees to work with reduced supervision and to work in teams when multiple skills and perspectives are useful.

* ***Involve suppliers in the quality management effort.*** Make sure that needs and expectations are clearly communicated to suppliers and let them know how well they are meeting your needs and expectations.

* ***Integrate quality improvement into the strategic planning process.*** The quality process should be incorporated into the strategic planning process and into the strategic plans resulting from the process, thus bringing about alignment of efforts and results with strategic goals.

Phase 3: Integration

Phase 3: Integration

- Consistently satisfy customer needs
- Build continuous improvement & learning into management systems
- Empower employees as their skills & experience grow
- Realize clear gains in all performance measures
- Infuse organization with systems thinking
- Assess progress

* ***Consistently satisfy customer needs.*** The objectives of the quality process are to satisfy customer needs on time, every time. Continuous improvement will allow the organization to keep getting closer to this goal.

* ***Build continuous improvement and learning into management systems.*** Continuous learning and improvement should become part of the way the organization does business, not a separate activity.

The Quality Journey

* **Enable or empower employees as their skills and experience grow.** As employees become more skilled, allow them to function in broader areas. As ownership by the employee increases, the need for supervision is reduced, and teamwork becomes more effective.

* **Realize clear gains in all performance measures.** Managers should set goals they consider attainable in a specified time for every performance measure. All parts of the organization should use performance measures in Phase 3. Benchmark organizations that are best in class in a key process, and seek to meet or exceed the performance of these organizations.

* **Infuse organization with systems thinking.** Focus process improvements on all organizational processes that cross lines of authority to avoid sub-optimization that may have a detrimental overall effect. Ensure that all activities are aligned with the organization's objectives.

* **Assess Progress.** Using the Malcolm Baldrige or the President's Quality Award criteria, evaluate your organization relative to the assessment categories. This assessment will allow a meaningful measure of progress and will help identify areas which need improvement. It will provide useful information to chart a roadmap for success. An organization in Phase 3 might consider applying for an award such as the President's Quality Award (Federal) or Baldrige Award.

The preceding Phases provide guidance and a systematic approach to initiating, facilitating, and sustaining a quality culture. The next several pages focus on the basic strategies to initiate a quality journey. The key concept is that quality is a continuing journey and each of the specific steps may need varying degrees of emphasis and attention as an organization strives to transform its culture and succeed in its quest for excellence.

Commit to Lead

Strong leadership commitment is essential to successful quality management and sustained cultural transformation. Quality leadership involves articulating a mission, vision, values, strategies, and goals; aligning policies, practices, and business plans; improving processes; organizing and communicating; and living the core values. It is imperative that top leaders be involved, do their part, and not delegate the strategic direction of the quality management process. Leaders need to model behavior that demonstrates their commitment. To model this behavior, leaders should :

- * provide strategic direction by defining roles and responsibilities and the organizational mission, vision, values, goals, strategies, and results measurement criteria;

"The job of management is not supervision, but leadership."

Dr. W. Edwards Deming

The Quality Journey

- * emphasize the importance of both quality management and technical training by implementing a plan for continuous training;
- * communicate with employees about quality, quality activities, and quality results;
- * involve themselves personally in the strategic planning process;
- * stimulate involvement by all relevant internal elements, including the union where applicable;
- * make the difficult choice of assigning the best staff to quality activities;
- * measure staff members commitment to quality by the way they use their time, resources, and people;
- * champion the quality process by regularly reinforcing the vision, quality values, and customer focus;
- * spend more time with customers and suppliers and guide the organization in developing mutually agreed-upon goals;
- * encourage risk-taking;
- * enable employees to assume responsibility after ensuring that proper skills and training are in place;
- * reward, recognize, communicate, and celebrate team successes;
- * live the core values both at work and in their communities;
- * designate a quality coordinator/contact in each organization and provide the necessary time and resources for successful implementation;
- * give ownership of work efforts and process improvements to employees directly involved;
- * establish a culture in which mistakes are not punished but mark pathways for improvement;
- * seek opportunities to speak on quality activities, describing the accomplishments and lessons learned; and
- * link performance reviews to quality results.

Develop the Organization's Mission, Vision & Strategic Plan

Develop a strategic plan that establishes the organization's mission, vision, and values and the way they relate to those of the Department. Clear goals, objectives, and strategies make it possible to manage change effectively and avoid crisis management. This approach allows managers to better justify decisions by linking their proposed management actions to the organization's strategic directions. In this manner, quality management becomes an integral part of the way business is done.

"We cannot direct the wind, but we can adjust the sails."

Anonymous

The Quality Journey

Strategic planning and quality management are linked in two basic areas:

- * **Alignment** - Alignment of the Strategic Plan, Quality Transformation Plan, Customer Service Plans, Diversity Plan and other issues that describe the corporate management philosophies of the organization are critical to achieving desired, tangible business results. The Strategic Plan reflects the leadership's priorities. Quality management is the "how and what" methodology practiced by successful organizations who continuously improve to remain competitive.
- * **Results** - Outcome-focused measures of performance are needed by the Secretary, the Administration, and Congress. Our stakeholders need to be able to see that near- and mid-term projects and programs are focused on what the Department considers to be in the Country's best interest. Quality management offers managers a wide array of measurement tools that can be used to identify, measure, and achieve the desired result.

To develop an effective strategic plan, managers should ensure the following with regard to the planning process:

- * plans are aligned with the Department of Energy's mission, vision, and core values and demonstrate a customer orientation;
- * strategic planning is fully integrated with the budget process and is well documented to develop quality operational goals throughout the organization;
- * many types of quality data, information, and analyses (customer requirements, operational performance, process capabilities, supplier data, benchmark data) are used in planning throughout the organization;
- * employees, customers, suppliers/intermediaries, and other partners are full participants in the planning process;
- * employees know how their work contributes to their organization's and the Department's goals;
- * managers and employees are held accountable for attaining major goals throughout the organization; and
- * improvement goals are among the top priorities as shown by extensive resource allocation including education/training, personnel, capital equipment, software, and other investments.

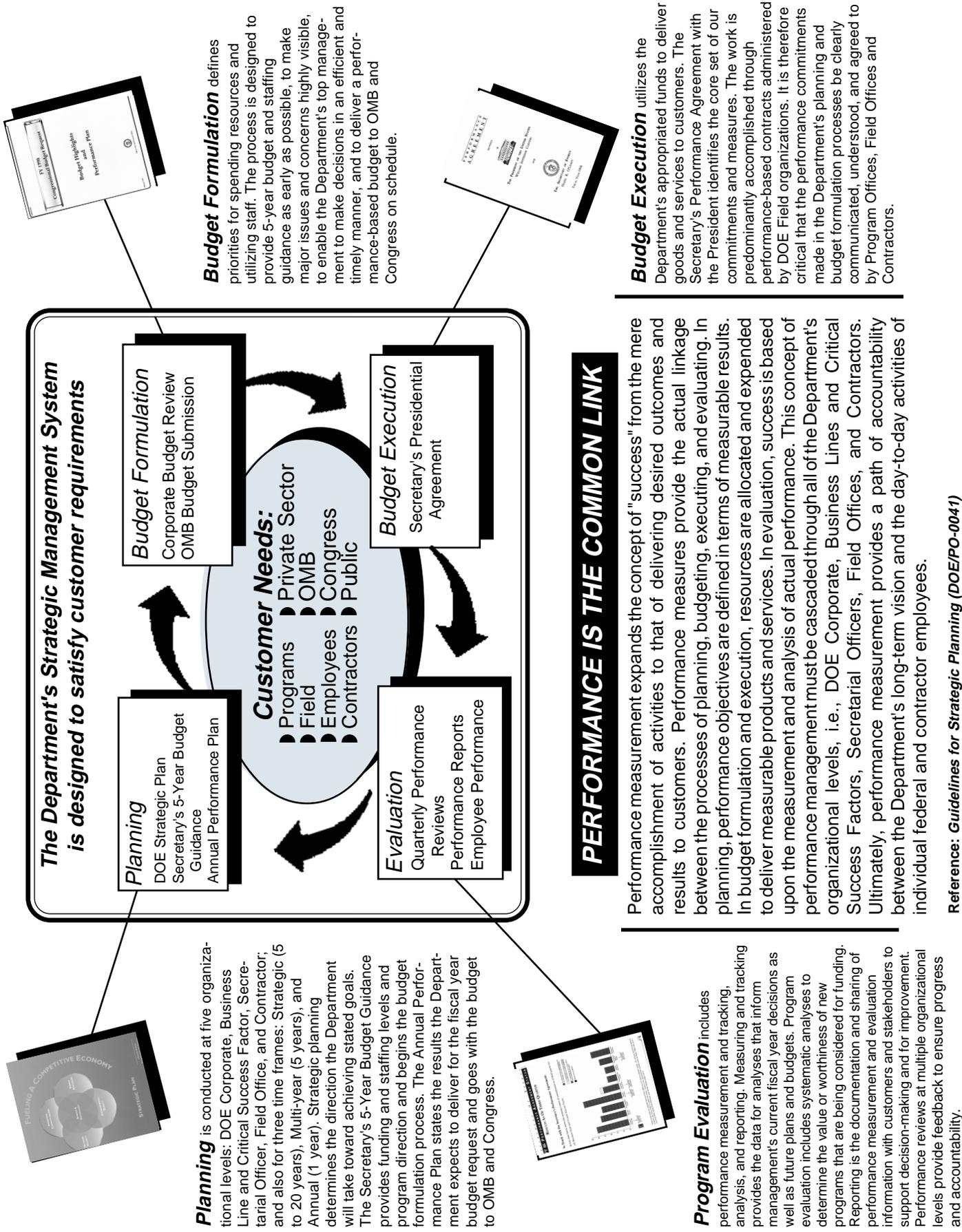
The Quality Journey

While there are many approaches to strategic planning, each organization may adopt processes that seem expedient or appropriate to their organizational component. However, some crucial elements should be a part of every strategic plan. First, a process should be agreed upon and then a strategic plan should establish direction. Adjustments to the strategic plan should be made as change occurs. The common elements of strategic plans are as follows:

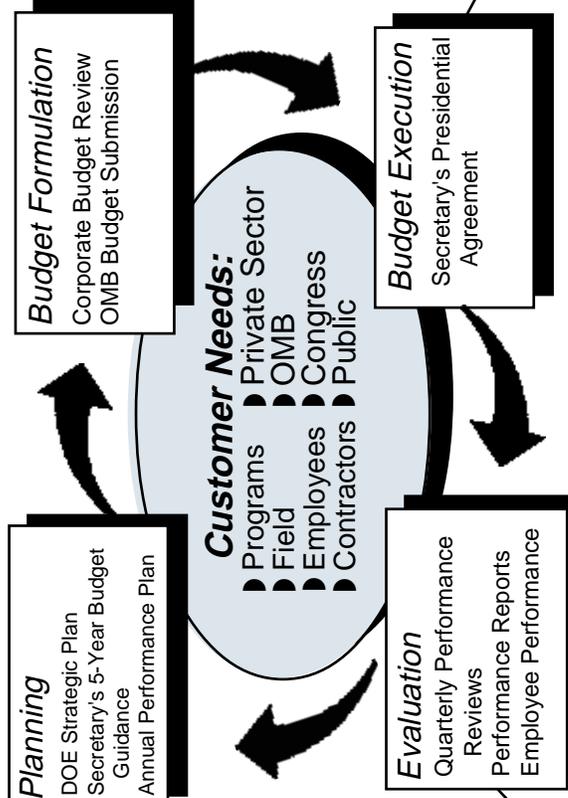
- 1. Mission** describes the reason for the organization's existence, **Why** do we do **what** for **whom** and **how**? There may be several in a given organization.
- 2. Situation Analysis** scans the organization's business environment relative to the mission, the current situation, the likely future, the customers, planning assumptions, strengths, weaknesses, and trends that may affect the mission as well as opportunities and strategic issues.
- 3. Vision and Strategic Objectives** articulate the future of the organization using Quality Management principles. The strategic objectives set forth key performance indicators or critical success factors. These key performance indicators or critical success factors can be used to assess progress toward strategic objectives.
- 4. Strategic Issues** include priority issues and barriers or obstacles. The analysis of these strategic issues will lead to the development of strategic goals and implementation objectives to be worked on during the planning period.
- 5. Strategies** are the courses of action to accomplish the vision, strategic goals, and objectives and to overcome the barriers to fulfilling these.
- 6. Program Planning** translates planning assumptions, strategic goals, objectives, and strategies into action plans, program plans, and performance measures. Action planning is vital to the overall process.

The Department's 1994 Strategic Plan and Program Strategic Plans document the fundamental decisions and actions that shape and guide what each organization is, what it does, and why it does it. The Department is using the following Strategic Management System to link planning, budget formulation, budget execution and evaluation.

The revised 1997 Strategic Plan will integrate numerous planning documents to form the strategy for the DOE.



The Department's Strategic Management System is designed to satisfy customer requirements



PERFORMANCE IS THE COMMON LINK

Performance measurement expands the concept of "success" from the mere accomplishment of activities to that of delivering desired outcomes and results to customers. Performance measures provide the actual linkage between the processes of planning, budgeting, executing, and evaluating. In planning, performance objectives are defined in terms of measurable results. In budget formulation and execution, resources are allocated and expended to deliver measurable products and services. In evaluation, success is based upon the measurement and analysis of actual performance. This concept of performance management must be cascaded through all of the Department's organizational levels, i.e., DOE Corporate, Business Lines and Critical Success Factors, Secretarial Officers, Field Offices, and Contractors. Ultimately, performance measurement provides a path of accountability between the Department's long-term vision and the day-to-day activities of individual federal and contractor employees.

Reference: *Guidelines for Strategic Planning (DOE/PO-0041)*

Planning is conducted at five organizational levels: DOE Corporate, Business Line and Critical Success Factor, Secretarial Officer, Field Office, and Contractor; and also for three time frames: Strategic (5 to 20 years), Multi-year (5 years), and Annual (1 year). Strategic planning determines the direction the Department will take toward achieving stated goals. The Secretary's 5-Year Budget Guidance provides funding and staffing levels and program direction and begins the budget formulation process. The Annual Performance Plan states the results the Department expects to deliver for the fiscal year budget request and goes with the budget to OMB and Congress.

Program Evaluation includes performance measurement and tracking, analysis, and reporting. Measuring and tracking provides the data for analyses that inform management's current fiscal year decisions as well as future plans and budgets. Program evaluation includes systematic analyses to determine the value or worthiness of new programs that are being considered for funding. Reporting is the documentation and sharing of performance measurement and evaluation information with customers and stakeholders to support decision-making and for improvement. Performance reviews at multiple organizational levels provide feedback to ensure progress and accountability.

Budget Formulation defines priorities for spending resources and utilizing staff. The process is designed to provide 5-year budget and staffing guidance as early as possible, to make major issues and concerns highly visible, to enable the Department's top management to make decisions in an efficient and timely manner, and to deliver a performance-based budget to OMB and Congress on schedule.

Budget Execution utilizes the Department's appropriated funds to deliver goods and services to customers. The Secretary's Performance Agreement with the President identifies the core set of our commitments and measures. The work is predominantly accomplished through performance-based contracts administered by DOE Field organizations. It is therefore critical that the performance commitments made in the Department's planning and budget formulation processes be clearly communicated, understood, and agreed to by Program Offices, Field Offices and Contractors.

The Quality Journey

"Even if you're on
the right track, you'll
get run over if you
just sit there."

Will Rogers

Develop A Plan for Improvement

A key step in implementing quality management is to assess the state of your organization and then develop a specific plan for improvement. The relevant and appropriate activities depend on the results of your self-assessment. If your results indicate you are just beginning, the first phase activities are appropriate for your plan.

The plan for improvement outlines the steps, tasks, activities and success measures to improve the organization. The quality management tools appropriate to each step, task or activity will ensure greater degrees of success and achievement of desired goals. Specific overarching or organizational elements and processes will provide framework and structure. These elements include establishing a quality infrastructure, identifying necessary training, analyzing core processes, focusing on customers, determining key measures of success, employee involvement and teaming methods and rewards and recognition systems.) See sections of these *Guidelines* for specific information and current Department of Energy examples.)

Organizational plans for improvement should include elements which meet the requirements of current Executive Orders, National Performance Review directives, the Government Performance and Results Act (GPRA) and the Blair House Papers. Check the NPR website (www.npr.gov) for the most current listings of Executive Orders, NPR directives, Blair House Papers and GPRA.

The Improvement Plan must involve input from the organization's quality infrastructure (groups or individuals), senior leaders, managers, and employees. The plan must fit the culture and needs of the organization and should be developed and implemented internally. Internal development and implementation ensures buy-in and accountability. Use of consultants for this process is strongly discouraged. The ultimate value comes from communicating, obtaining input and being part of achieving planned outcomes from the managers and employees directly involved in the organization's business.

Establish A Quality Infrastructure

The ideal time to establish the quality infrastructure is at the beginning of the quality journey. This organizational infrastructure, with support guidance from senior leadership and top management, will help institutionalize desired culture changes. The role of the infrastructure is to institute (begin), facilitate (implement) and sustain (institutionalize) the expansion of the organization's mission, vision, and core values.

"There is nothing so useless as doing efficiently that which should not be done at all."

Peter F. Drucker

Guidance & Resources

Provide guidance documents such as these *Guidelines* to all organizations. Refer to the *Guidelines* frequently - emphasize the value of the effort. Invest appropriate personnel and fiscal resources in budget planning to demonstrate belief in the process.

The Quality Management Infrastructure

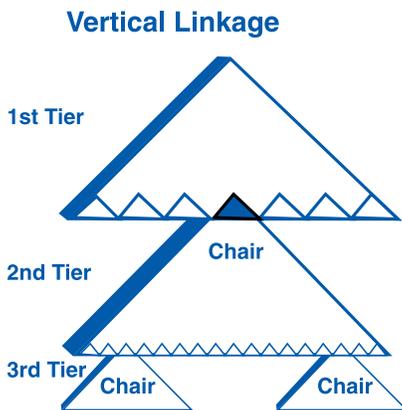
Successful quality initiatives are achieved in organizations which tailor the infrastructure to the unique mission, culture, talents and experiences of its people. The titles of the infrastructure groups are not significant. Effective quality infrastructure begins with the senior leaders of the organization and then cascades to subsequent levels vertically and horizontally throughout the organization. A linchpin concept ensures continuity and effective communication between and among groups with one member of each component serving on the next tier component. The size, function, charter and number of components will vary depending on the size and culture of the organization.

Methods for setting up a quality management infrastructure, developing charters, roles and responsibilities, criteria for selection of members, ground rules of operating, and relationships of infrastructure groups to one another should be clearly documented. The Department of the Navy, and the Department of Veterans Affairs Quality infrastructure models are presented in Section 2 of the Federal Quality Management Handbook, *How To Get Started*. (Available through the Office of Personnel Management)

Suggested components of an infrastructure include a consultant group (DOE Office of Quality Management) to serve as the corporate level catalyst for institutionalizing cultural transformation. Rotating groups or teams of people include a senior management group chaired by the head of the organization or designate (DOE Leadership Group); implementation group (DOE Energy Quality Council); change agents (DOE Quality Coordinators, DOE Customer Focus Advocates); other special groups (DOE Three-Point Quality Forum, DOE Labor/Management Partnership Council, DOE Diversity Council). A permanent facilitation function provides continuity to the multi-year transformation process. Rotating member groups build the critical mass necessary to sustain the transformation and continuously improve the organization. Committed leadership creates the environment in which the quality transformation process can succeed.

Quality teams need to be trained in team building skills in order to function effectively. The methods to be used in setting up the teams; their charters, roles, and responsibilities; and the criteria for selection of processes should be clearly stated for maximum effectiveness. A facilitator should be used to help teams perform effectively and efficiently.

The Quality Journey



Infrastructure Groups

Depending on the size of the organization and the number of infrastructure groups, some roles and responsibilities may be combined or enhanced. The roles and responsibilities for some specific groups are offered below. These groups may have a rotating membership to enhance and expand participation.

Senior Management Team. Virtually every organization that has successfully introduced quality management into its culture has begun with the formation of an executive team of senior leaders designated and chaired by the head of the organization. This team:

- * provides programs, project, and special event mechanisms to implement quality initiatives;
- * models, by example, behavior reflecting the core values of the Department;
- * provides leadership and guidance for the quality process;
- * defines the organization's mission, vision, and values;
- * develops strategic quality goals and objectives;
- * determines sequence and timetable for quality implementation;
- * develops partnerships with unions on quality issues;
- * provides support and resources for training;
- * provides recognition and rewards;
- * evaluates the effectiveness, value, and priorities of recommendations, and may select the initial processes for improvement teams.

Implementation Group. Larger organizations often have a team that provides advice to the senior management team. In some organizations the management team and the implementation group are the same group. The implementation group has the following functions:

- * recommend and conduct programs, projects, and special events to implement quality initiatives;
- * model, by example, behavior reflecting the core values of the Department;
- * develop guidelines for transition to a quality management environment;
- * recognize unions as partners in structuring quality activities;
- * develop training recommendations for quality initiatives implementation;
- * charter teams;
- * develop communication and deployment recommendations for quality implementation;
- * assist in the integration of transition planning into strategic planning; and
- * monitor progress of the quality initiatives.

The Quality Journey

Change Agents: The change agent oversees and monitors implementation of quality principles within specific program offices. The change agent is an internal consultant to the specific program or line organization and should be the focus for encouraging coordination with or integration of related activities. As an internal consultant, the change agent will perform the following functions:

- * help senior managers in the organization develop a quality implementation/ process improvement plan;
- * develop and foster a customer-focused orientation within the organization;
- * assist in the formation of process improvement teams, providing expertise in application of appropriate tools, team building, customer service skills, meeting management, facilitation;
- * consult with and take guidance from the organization's implementation group;
- * work with the corporate (permanent) quality organization and other external offices on quality issues and communicate information about state-of-the-art and ongoing quality improvements;
- * partner with union quality representatives in implementing activities;
- * keep management informed of successes, opportunities for reengineering and continuous improvement and lessons learned;
- * partner with (or serve as) customer focus specialists to improve customer focus and satisfaction.

*"Coming together is a beginning.
Keeping together is progress.
Working together is Success."*

Henry Ford

Teams: Successful cultural change in organizations depends on effective teamwork and process management. Teams, groups of people with a common purpose, are a principal mechanism for solving problems, initiating process improvements, reengineering cross-cutting issues, and providing guidance to the culture change. Teams can be intact work groups, cross-cutting groups, infrastructure groups, special project groups, or special interest groups. Teams can be designated for specific short-term projects or designated long-term mission groups (such as the quality infrastructure groups). The make-up of teams will depend upon the scope of the initiative.

Effective teams are trained to work as a team; have senior management champions and sponsors; are represented by all levels in the organization; have a designated leader; function in a facilitated environment; and use quality management tools to achieve desired results. Senior leaders provide guidelines for team activities, remove barriers to success, and champion achievements. Team members are expected to:

- * be coached and encouraged to contribute their time, ideas, talents, and energy;

The Quality Journey

- * challenge past assumptions and paradigms;
- * use a structured problem-solving approach and quality management control techniques to solve problems and improve processes;
- * help the team become and remain a team; and
- * become advocates for the quality processes that are learned during the experience.

Train Employees

Quality management training typically begins with awareness training conducted by qualified trainers and aimed at senior managers, quality coordinators, and in-house trainers and facilitators, if they already exist. Awareness training encompasses the basic concepts of quality management as well as strategic planning and customer service and satisfaction.

After awareness training, managers should receive train-the-trainer training to enable them to train their direct-reports, who, in turn, should be similarly trained until all employees in the organization have learned the basic concepts and principles of quality management, strategic planning, and customer service and satisfaction. This in-house approach, called cascading, has been used by organizations that have successfully implemented quality management in their organizations.

The cascading training approach is not only cost-effective but is also a good way to demonstrate leadership commitment and to encourage buy-in to quality principles. Newly trained managers are encouraged to take advantage of opportunities within their own organizations to apply quality management principles and concepts before they train their staff members so that they will be able to draw on real-life experiences and lessons learned and demonstrate commitment.

These *Guidelines* recommend use of the cascading training approach; however, managers may use other alternatives. For example, managers may initially hire qualified trainers to provide all of the training but most recognize that their culture will be slower to change than when using in-house personnel who learn by teaching.

Additional training in various other quality topics and specific techniques is given to employees on an as-needed and just-in-time basis. For example, training in team skills (e.g., leadership, teamwork, group dynamics, meeting management, and planning) should be provided when a team has been formed and is ready to begin work. If a team is examining processes, members should be trained in applicable process measurement tools and evaluation skills.

"Good enough is never good enough...the status is never quo."

G. Rex Bryce

The Quality Journey

Training Needs Analysis

A training plan should consider the number of people to be trained, the types of training required, the desired timetable, and required resources. It should be coordinated with partnering unions and applicable to the employees' individual development plan (IDP). Generally speaking, an extensive analysis of staff training needs may not be necessary, but this determination should be based on reliable information such as employee attitude surveys, customer feedback, or management evaluation combined with hard data derived from reviews of documentation and records.

Training requirements derive from individual needs to develop, enhance, and adjust skills. Each organization's quality management training needs are different, depending on how far the organization has progressed on its quality journey. Training phases are summarized as follows.

Deciding Whether To Implement Quality Management. At this point, top executives are actively considering whether to embark on a quality management effort. Typical education and training needs are quality management, strategic planning, customer service and satisfaction awareness training for top management, reading and video viewing, and attendance at conferences and external training seminars.

Getting Started. Top leadership has made a formal decision to embark on a quality effort and is moving to create a quality infrastructure, a strategic plan, and vision and related statements. Leaders are assessing the organization's readiness and culture, developing training and quality implementation plans, and starting initial education and training. Assuming top managers have already been trained in basic awareness, they should receive additional training in change management, leadership, and behavior. Mid-level managers, supervisors, and non-management employees should receive training in change management and quality management, strategic planning, and customer service and satisfaction awareness. Also useful are site visits to exemplary organizations; in-depth training for the quality infrastructure members; training for managers, team leaders and supervisors to conduct awareness training for the work force; and training for internal trainers, facilitators, and team leaders. In addition, customer focus advocates should be trained in customer service and satisfaction.

Implementation. Some specific results are being realized, such as formal establishment of quality teams, identification of internal and external customers, analysis of systems and processes to streamline operations, and adoption of significant new policies designed to further quality management principles. In this phase, training needs will include quality management, strategic planning, and customer service and satisfaction awareness training for the entire work force; leadership, change management, and behavior training for managers, supervisors,

The Quality Journey

and union leaders; team leader and team member training; continued training of internal trainers and facilitators; and limited training in advanced subjects such as business process re-engineering, performance measurement, benchmarking, quality deployment, customer satisfaction surveying, and statistical process control.

Achieving Widespread Results. In this phase, the organization is beginning to realize systemic, cross-functional, and organization-wide achievements.

Training needs include advanced statistical analysis of complex processes; business process re-engineering; and more widespread training in planning, benchmarking, quality deployment, and integration of quality concepts in all supervisor and leadership training.

Selecting Suppliers

Many organizations, both public and private, provide training, facilitation, and implementation support for quality activities; available suppliers and offerings change often. As the quality transformation matures, quality management training and education should become an internal process. Within the Department of Energy, the following organizations and individuals maintain a current awareness of this information: the Office of Quality Management, the Office of Training and Human Resource Development, Quality Coordinators, and members of the Leadership Group and the Quality Council.

Additional information about Quality Management training offerings from the Office of Quality Management may be found at <http://www.explorer.doe.gov>.

COURSE TITLE AND PURPOSE	AUDIENCE	LENGTH	DELIVERY
<i>Quality Awareness</i> Specifically designed for getting started on the quality journey	Senior managers and their immediate staff	One day session can be given as a Total Quality Management overview	Office of Quality Management (OQM) or contractor personnel for initial session; designed so that internal managers can present throughout his/her organization. OQM personnel train managers
<i>Strategic Plan/Quality Awareness</i> Combines understanding an organization's strategic plan with an overview of Total Quality Management; shows the relationship between strategic planning and quality. Designed specifically for cascading these two critical pieces of information throughout an organization	All employees within a first-tier organization	One day	Should be given by managers throughout their own organizations. Office of Quality Management trains managers to present this course.

The Quality Journey

Creating a Training Plan

An organization may need to develop a training plan in the startup phase of its quality journey. A typical training plan is shown below:

COURSE TITLE AND PURPOSE	AUDIENCE	LENGTH	DELIVERY
<i>Customer Service</i> Covers the fundamentals of customer service, including defining customers, establishing and maintaining feedback mechanisms, forming partnerships, dealing with complaints; stresses the importance of customers to the organization.	Customer advocates and managers - Very important for customer advocates	Two to four days	Contractor and in-house
<i>Quality Concepts & Practices</i> Provides a more comprehensive understanding of both the analytical and behavioral aspects of quality explains Plan-Do-Check-Act cycle and basic process improvement, provides an overview of analytical and planning tools, and explores new behaviors required for success.	Managers, quality coordinators, customer advocates, facilitators Very important for quality coordinators and candidates for facilitator training.	Two to three days	Contractor provided or in-house facilitator(s)
<i>Behavioral Training</i> Fosters the personnel behaviors that allow managers to understand and be successful in an open, interactive quality culture.	All senior executives, managers, and employees.	Three to four days	In-house facilitators and contractor personnel
<i>Leadership Training</i> Defines the role of leaders in the quality culture.	Very important for all senior executives and managers	Three to four days	In-house course delivered by contractors teamed with managers or Office of Quality Management staff; also can be delivered by contractor personnel
<i>Managing Change</i> Explains team dynamics of organizations and individuals in a changing environment	Target senior executives and managers but open to everyone	One to two days	Contractor personnel
<i>Team training</i> Explains team dynamics, process improvement, process design, problem solving, and analytical and planning tools	All teams and work groups - Very important	One to four days	Just in-time by a trained facilitator. Content should be organization specific
<i>Facilitator Training</i> Trains in-house personnel to be facilitators for meeting and teams	Potential facilitators - Very important	Three to six days	Contractor or in-house personnel
<i>Performance Measurement</i> Differences between performance measures and activity measures; describes process and program performance measures	All managers and quality coordinators, and others needing to implement performance measurement	Two to four days	Contractor personnel

The Quality Journey

Evaluating Training Results

When the training plan has been developed and the training plan has been delivered, results should be evaluated on an on-going basis. Organizations should decide which methods to use to evaluate the effectiveness and extent of product and service quality as a result of the related education and training. The following questions may prove helpful:

Was the curriculum simple and tailored?

Did managers serve as trainers?

Was on-the-job application included?

Did the training set forth the agency vision, values, goals, team-building process, problem-solving tools, and specialized applications?

Are training plans fully integrated into the overall strategy and planning for quality?

Did the training meet the needs of the customer?

Did the training add value?

Has the training enhanced the effectiveness of the work force?

Manage Process Quality

A good outcome starts with a good process. Process improvement involves people working together to understand how a process is performed now and to suggest ways to do it better (i.e., higher customer satisfaction, lower cost, shorter cycle time).

Participants in Process Improvement

Managers

- Direct improvement effort from beginning to end
- Identify processes to be reviewed
- Solicit input from employees
- Identify customers (internal and external)
- Routinely solicit input from all customers

Employees/Teams

- Assist in decision making
- Support management efforts
- Share information and skills
- Assess customer reactions to organization's products
- Work cooperatively with customers to identify and chart processes

Customers

- Identify expectations
- Make suggestions
- Provide data

The Quality Journey

Continuous Improvement

The continuous improvement cycle is a basic structure for quality improvement. It includes four steps: plan, do, check, and act. Before the plan-do-check-act cycle is implemented, the process should be defined.

Define the Process. Before improvement is possible, understanding must be reached of the current method/process with detailed results (establish a baseline). Flowcharting the process and investigating the who, what, when, where, why, and how of process performance are critical steps. The following questions can then be asked: What does the customer expect? Do all steps add value? Can parallel steps replace series steps? Which steps consume the most time?

Collect Data. Data collection entails deciding on what kinds of information are needed so as to determine how the process is performing now and how it can be improved. Data are gathered according to a specific plan, based on measurements of process results.

Chart Process Performance. Process performance is a measure of the way a process works and how effective it is. Utilizing performance analysis measures, based on process results, determine how the process is currently performing. Benchmarking provides a standard by which an organization can measure its own products, services, and practices against the best in class.

Analyze for Improvement. The team should analyze root causes of problems in order to identify lasting improvements. Finding these correct solutions requires a combination of creative free thinking and disciplined analysis.

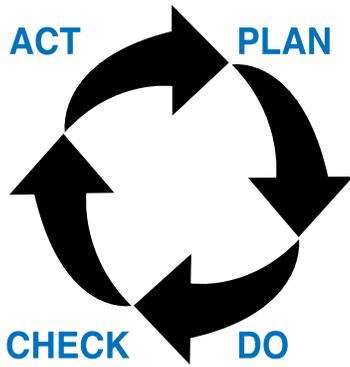
"All work is a process."

Dr. W. Edwards Deming

Quality Management and Quality Assurance

Quality management and quality assurance, as practices, have been viewed as separate and distinct philosophies. The mentality of audit, inspect, detect, rework and accountability for product quality at the end is changing. Prevention - not detection, do right the first time - not do it over, accountability at every level to hand-off a quality job - are being adopted to gain cost savings, higher quality, and confidence in products and services. As part of continuous improvement and process management, quality management and quality assurance are being viewed as complimentary - both designed to achieve excellence at the end of the process. Quality assurance and quality control are being built into the processes, replacing "inspection" as a necessary part of the process. Audits are giving way to assessments for strengths and opportunities for improvement. The Office of Quality Management continues to partner with assessment, audit, quality assurance activities to use both philosophies to achieve the desired results.

The Quality Journey



The Plan-Do-Check-Act Cycle (PDCA)

The PDCA cycle is the systematic method applied to improving processes. To achieve continuous improvement in a process, the cycle is repeated on different problems or opportunities, usually in order of their importance. The following are the elements of the Plan-Do-Check-Act Cycle:

Plan - Define the steps by which a process will be executed. Incorporate lessons learned from past results.

Do - Conduct the process to obtain the desired results.

Check - Measure the important attributes of the product or service resulting from execution of the plan.

Act - Analyze the results of the measurements compared to the desired results. Use this information to generate concepts for further modifications to the process. If appropriate, conduct pilot measurements to verify the feasibility of the proposed modifications.

In true continuous improvement, the results of the cycle lead to further ideas for refinement of the process.

Reengineering

The term reengineering has become a popular term in recent years. Most people think of reengineering a process or an organization as a completely new start and new approach to doing business. The large magnitude of the changes brought about by reengineering bring with it high risk of failure. In fact, according to a study by the Government Accounting Office, most reengineering efforts within the Government have been total failures. These failures are due to the approach taken. There are several key ingredients to a successful reengineering effort. The first is process knowledge. Before you can replace a process or system you have to understand why it works or does not work. You must also have knowledge of a better process based upon new knowledge. This knowledge can come from benchmarking other organizations, from the application of new technology, new materials, new suppliers or in some cases new customers. The second key ingredient is performance measurement, which allows an assessment of the process relative to important measures of customer defined quality. This is what should be used to make the decision to reengineer. The decision should not be made on intuition or anecdotal evidence. All too often we get impressions about a process or system based upon one or two events or situations. Often these situations do not adequately represent the true performance of the process. Thus, we sometimes make decisions which lead to replacing a system that works, albeit not perfectly, with one that may not work at all. Development of performance measures is a critical step in

The Quality Journey

improving management practices and decision making in an organization. The Plan-Do-Check-Act cycle of process improvement can be used to ensure proper use and application of reengineering efforts.

- Plan:** Determine what is important to measure
- Do:** Evaluate performance relative to performance measures
- Check:** Study and determine the scope of change needed
 - a) Large - reengineering
 - b) Small - continuous incremental improvement
- Act:** Implement the change (monitor performance)

Focus on Results

Quality management focuses on identifying and tracking the results of an organization's business. The goals identified in the strategic planning process include performance measures for the continuous evaluation of organizational and program effectiveness. This emphasis has been reinforced through enactment of Public Law 103-62, Government Performance and Results Act of 1993 (Results Act). This Act directs all agencies to develop and implement a strategic plan; link the budget to the Plan and to be held accountable for achieving stated performance goals. The results orientation can be translated from strategic goals to the detail-level work processes in an organization.

Without quantifiable information, translating and evaluating the achievement of results are difficult. Information on the outcomes of processes provides the mechanism to determine the effects, either positive or negative, of changes in work processes. Measurements fulfill two fundamental needs of organizations: they assess progress as well as organizational success in meeting mission objectives and customer expectations.

"If you don't keep score, you're only practicing."

Tom Malone
President, Milliken Co.

Why Measure?

Data derived from measurements are key to successful implementation of quality management because they pinpoint where progress is being made and where improvement is needed. This evaluation applies to all types of work processes from research to administration and to all organizational levels. Measurement effect should be communicated to employees and customers so that they can see the effect of their effort. Measurements should lead to quantitative assessments of the following quality goals:

Gains in customer satisfaction:

- * improved timeliness of service;
- * greater accuracy and responsiveness;

The Quality Journey

- * willingness to listen and solve problems;
- * increased consultation and improved relationships;
- * less need for follow-up inquiries; and
- * fewer complaints.

Gains in organizational performance:

- * reduced costs of non-quality;
- * reduced cycle time;
- * greater output with reduced resources;
- * elimination of non-value-added work;
- * improved program effectiveness and credibility;
- * greater innovation in work processes; and
- * broad-based systems for providing rewards and recognition at all levels.

Gains in workforce excellence:

- * increased employee involvement (sharing talents and expertise; showing dedication to quality performance);
- * improved employee morale and trust;
- * greater skill levels;
- * enhanced decision making; and
- * reduced absenteeism.

Each process should be reviewed continuously to determine ways it can be performed more effectively and efficiently. The Plan-Do-Check-Act Cycle should be applied to process improvement based on the measurements that are used to baseline the process and measure the results after changes are made.

"The greatest obstacle to discovering the shape of the earth, the continents and the ocean was not ignorance but the illusion of knowledge."

Daniel J. Boorstin

How to Implement Measurements

When implementing a measurement program, the following steps are important:

- * use measurements to promote improvement, not to identify poor performers or to penalize them;
- * give control over implementing changes and designing the measurements to those held responsible for performance and improvement;
- * train employees in elementary statistical methods to acquaint them with what measurements are, what they mean, and how they relate to customer requirements.
- * utilize the Plan-Do-Check-Act cycle to set performance targets, measure and assess progress, identify improvements needed, and set new targets.

The Quality Journey

Types of Measurements

Many types of measurements may be used. Examples include the following:

Customer satisfaction, expectations, and feedback:

- * identify internal and external customers and define their expectations;
- * measure the extent of satisfaction of customers, using instruments such as surveys, feedback sessions, and focus groups;
- * note that care must be taken as people often say what they think a person wants to hear, not what they think.

Cost of Quality (in terms of money, time, and other resources used):

- * required costs, what it costs to accomplish the task;
- * prevention costs, what it costs to prevent defects in the work product;
- * inspection costs, what it costs to inspect output for conformance;
- * failure costs, what it costs to rework a failure.

Baselining:

- * Determine the current status of the organization or process in enough detail to quantitatively evaluate the effect of changes.

*"Vital few,
trivial many –"*

Juran

Work process measurements:

- * applied at lowest work-process level;
- * measure process as-is before making changes;
- * should be simple and understandable to those involved in the process;
- * few in number;
- * generated by those who will use them;
- * designed to show improvement, not just that process is under control;
- * should focus on reducing the cost of nonconformance;
- * must be visible.

Benchmarking against best in class:

- * used on process/system level (for example, L. L. Bean currently is a model for warehouse operations);
- * should be done after an organization has started the journey to allow best use to be made of the results.

The Quality Journey

Progress toward Quality Awards:

- * use the Presidential or Baldrige Award Self-Assessment Guide to assess progress.

Organizational culture surveys;

- * provide baseline for evaluation of progress;
- * provide guidance for areas of emphasis.

“*Guidelines for Performance Measurement*”, DOE G 120.1-5 is available from the DOE Office of Policy and International Affairs.

Communicate, Communicate, Communicate

A quality management approach should include two-way communications to address both employee and customer needs, management plans and potential changes using a variety of resources. Examples includes:

- * informal brown bag lunches with the Secretary of Energy and employees;
- * articles written for community and local newspapers, community media coverage of quality events, and press releases;
- * articles written for Department newsletters to celebrate team successes, new quality initiatives, quality training programs, and human interest stories;
- * advertisements placed on Department electronic and stationary bulletin boards to raise awareness of quality management and progress;
- * a quality management library of tapes and books;
- * Town Hall meetings to solicit employee input for quality initiatives and teams;
- * meetings involving all employees to report on the progress of quality initiatives, status of process improvement teams, to share basic information, and to recognize employees;
- * an annual or semi-annual Quality Day;
- * participation in National Quality Month (October) activities;
- * participation in local, state, and national productivity awards programs;
- * quality improvement workshops and seminars;
- * quality partnerships with the corporate sector, school districts, nonprofit organizations, unions and other government agencies;
- * videos and visual aids tailored to the organization;
- * focus groups;
- * inclusion of quality concerns in every meeting chaired by senior managers; and
- * formal and informal feedback systems for employees and customers.

The Quality Journey

Employee Involvement

Managers should develop a strategy for involving and enabling the work force. This method should be tied to quality goals and objectives in the strategic plan. Managers should choose an approach that best matches the nature of the organization. One key element is creating an environment that supports employee contributions, teamwork, trust, and mutual respect. People who work in organizations with a high degree of employee involvement tend to be enthusiastic and positive about changes. The ideal situation is to encourage people who are working directly with customers to make more decisions for themselves and work as a team. Three principles of quality to build on are to focus on achieving customer satisfaction, to seek continuous improvement, and to fully involve the entire work force.

An involving organization is comprised of a work force in cross-functional teams and natural working groups. They share information, knowledge, skills, abilities, rewards, recognition, authority, and accountability at every level of the structure. Organizations planning to introduce employee involvement techniques should offer training for managers to explain their changing roles and to secure their commitment to share all relevant information with employees. Results from these efforts by these elements include:

- * increased employee involvement;
- * employee expectations being met;
- * periodic assessments that help managers measure progress toward desired states or outcomes;
- * better communication, which introduces greater degrees of employee involvement and makes leadership capabilities more apparent;
- * higher morale;
- * improved products and services;
- * reduced cost;
- * greater efficiency and timeliness;
- * meaningful results in areas of labor management relations and productivity; and
- * The Presidential/Baldrige Award for Quality.

Employee Recognition

Rewards and other forms of recognition provide powerful positive feedback and motivation, helping employees see the direct connection between their contributions and the effectiveness of their organization. Two elements of reward systems are performance-based and skill-based awards.

* **Performance-based rewards** reflect performance results and recognize individuals and teams (e.g., rewards for suggestions; rewards based on cost savings; bonuses, certificates, promotions, money).

The Quality Journey

* **Skill-based rewards** recognize individuals knowledge, skills, and abilities and are tied to expanded capability and flexibility. Added skills and abilities can be in such areas as technical, interpersonal, problem solving, and decision making.

Recognition programs support the expansion of employee involvement by motivating and recognizing the enhancement of skill and performance at any level of the organization by groups or individuals. Management should express awareness of and appreciation for the individual or group's effort toward fostering quality management. Ways should be sought to set up win-win situations in which everyone feels appreciated. This concept can be carried into the performance appraisal process as well.

The following are some examples of recognition systems used by private and public sector businesses:

* **Co-Worker Recognition (Thanks! You Made a Difference!)** Recognition is presented by an individual or group of co-workers at the recipient's work area. The employee being recognized receives a standing ovation, a certificate commending the performance, a cluster of balloons, a photograph of the event, or a gift certificate.

* **A Thank You Award Program** allows all employees to recognize and thank other employees for a special effort or contribution. The awards are modest, ranging in value from \$5 to \$50, and are available through a "Thank You" store for immediate presentation to the recipient. The program is funded from the Incentive Awards budget, with each office or division receiving its own allocation based on a dollar amount per employee. A "Thank You" nomination form is filled out, signed by the nominator's supervisor, and submitted for same-day pick-up and presentation.

* **The Supervisor to Employee Recognition (Good Work! You Made Our Job Easier!) Certificate** is given whenever an individual or group performs a task in an exceptional manner, is creative or innovative, or uses quality management methods to improve a process. All those recognized receive a Recognition Certificate. Thank you cards may also be issued when employees do a good job. Articles about employees doing exceptional work may appear in a newsletter.

* **The Unsung Hero Award Recognition** is given by a work group to recognize the accomplishments of an individual who might not otherwise be recognized. This recognition is designed for people in positions that ordinarily provide them little visibility or chance to be recognized. The Unsung Hero Award certificate is presented during an organization-wide ceremony. Recipients are given a Store gift certificate, and their names are inscribed on a plaque.

* **Semi-Annual Group/Team Recognition** acknowledges a group's special efforts in satisfying internal customers and suppliers. Groups recognize others outside their departments, and the winners are announced on Recognition Day.

***PRIDE Award** is an honorary award which recognizes the creativity, initiative, and dedication of Department of Energy employees who have provided service above and beyond the call of duty. Any one who has first hand knowledge of another employee's exemplary efforts can initiate the nomination by brief memorandum describing the act or performance. Presentations are made by the Secretary of Energy, whenever possible. Employees receive a PRIDE pin, a letter which acknowledges their achievement and autographed photograph.

Publicize, Communicate and Celebrate Successes

Successful quality programs keep both employees and customers informed and involved on a continuous basis, communicating and celebrating all efforts and positive results. The concept of celebration is key. Small improvements in large efforts motivate the team and taking time to recognize and communicate to others their achievements builds momentum. Celebrations produce high motivation, reinforce the organization's employee involvement objectives, stimulate employee participation, and encourage managers to involve employees. For employees, the knowledge of progress made, new initiatives undertaken, or opportunities for continuous learning leads to greater process ownership in the organization. For customers, feedback opportunities lead to increased customer satisfaction through a heightened awareness of the level of service provided and a sense of being part of the team. Involvement, recognition, and communication activities should be directed to group successes whenever possible and should utilize a wide variety of resources.

Lessons Learned

Employee Involvement

Based on their experiences in introducing increased employee involvement, about three dozen federal agencies documented their lessons learned at the request of the former Federal Quality Institute, and many also participated in a General Accounting Office study on Quality Management implementation. Four employee involvement techniques were found in virtually all organizations reviewed: information sharing, participation groups (e.g., Quality Councils and Process Action Teams), employee surveys and feedback, and employee suggestion programs. While terminology varied along with percentages of employees involved, these four techniques may be viewed as core elements of employee involvement in government today.

The implementing organizations provided many suggestions to help prepare managers for the transition to greater employee involvement, which are summarized here:

Most significant employee involvement lesson: NEVER develop expectations of someone you haven't had real conversations with. I have been amazed at the significant contributions from people that I wouldn't have guessed.

Support for mid-level managers is vital. Top-level and first-line support was good, but middle managers fear the coach/mentor role. Can't emphasize enough, the need to train middle managers and make expectations clear.

Top management must support and give teams time to develop common language and knowledge base. Managers must learn to listen to workers at all levels.

Make sure there is buy-in first by managers and supervisors to the concept of employee involvement. Unfreezing managers and supervisors so they are receptive to employee involvement and empowerment is essential.

Management resists more than employees . . . most critical is management understanding/support before much employee involvement is introduced. Make sure managers are fully trained.

Can't tell employees they are empowered - that you want them to be involved - without first changing management behavior and management systems and structure.

Lessons Learned

"The only things worth learning are the things you learn after you know it all."

Harry S. Truman

First change management systems: appraisals, communication, personnel classification.

You must be sincere about employee involvement. Can't get any real level of empowerment without relinquishing some control. Need right leadership style that expects this, celebrates it. Key ingredient is leadership.

In the beginning, management took too much of a hands-off approach to teams. Management learned that teams need a lot of guidance and support. Difficult to know in advance how to provide enough guidance without directing them.

Get team leaders together to talk about how it's going; use newsletters. All of this is very important.

If I were to do it over, we would make sure that Quality awareness training was provided before action teams were established.

Keep team administration as simple as possible. Don't ask for employee involvement and then place a large administrative, reporting burden on them so management can oversee what they are doing.

Start out with strategic planning. In our case, we came to strategic planning after a lot of efforts were underway. Planning is crucial."

Change the performance appraisal system to require involvement. The shake-out period can include what appears to be floundering and even chaos at times. The natural evolution to the concept of self-managing teams is where the faith and investment in staff pays off.

Training

The need for continuing training at all stages of the quality journey is a basic premise of quality management. The following are potential stumbling blocks for removing barriers.

Middle managers will be less of a barrier to success if they are brought into the training process at the earliest stages.

Training too far in advance of its application will be a waste. Just-in-time training is the term used to describe providing training in skills just ahead of the time a person will employ them. If there is a time lag, the skills will decay rapidly unless used.

Lessons Learned

It is important that people understand that the implementation of quality management implies a culture change, and training to support behavior growth and core values adoption is just as important as skills training.

To save costs in training, many organizations train in-house staff to be trainers for the remaining staff. In addition to keeping costs down, the experience encourages buy-in to quality principles by those doing the training. This is one way to hasten the attitude shifts required of many managers and employees.

Culture Change

One of the most difficult aspects of implementing quality management is that it requires a change (sometimes monumental) in the prevailing culture of the organization. It manifests itself most clearly in the way that people treat each other: managers and staff, fellow employees, customers, and suppliers. This change is usually unlike anything that has been experienced in the workplace and will have greater chance of success if top managers model the hoped-for behaviors themselves.

The following demonstrate barriers to be overcome and provide suggestions for achieving cultural change:

The skepticism and cynicism of those who do not believe the process will work and who hope to wait it out. This is overcome by continued, diligent and sincere adherence to the principles by the leaders of the organization, over a period of years if necessary. There is no other way.

Competing priorities from normal duties. This is overcome by managers reassigning tasks to free up people to work on quality activities. It may mean dropping certain activities which provide the least value-added for customers.

The inherent nature of people is to resist change and the fear of the unknown. Many people, especially managers, may feel that changes will put them out of a job. This fear is not easily overcome, but can be reduced by involving them directly in the change process, considering their recommendations seriously, aggressively looking for opportunities to better utilize and enhance their basic skills, and communicating these objectives on an ongoing basis. In the final analysis, many people's concerns come down to their fear of not being able to perform new tasks and the accompanying fear that they ultimately will lose income. Managers must work hard with those so afflicted to ensure that it never happens.

Lessons Learned

There Is No Silver Bullet, no panacea. There is no single perfect action management can take that will successfully implement quality in their organization. Success is achieved by taking one step at a time along many frontiers. Pursuing the superstition that a panacea must exist somewhere will only delay real progress and lead to frustration for everyone. The fad of the minute is usually a placebo at best, and often this tampering has negative value added.

Infrastructure

Developing an organizational structure that will institute, facilitate and sustain the quality improvement effort is an essential element for success. The structure is the vehicle for focusing the energy and resources of the organization toward one common goal—continuous improvement of products and services based on customer needs. The following is a list of barriers to be overcome and suggestions for organizing to institute, facilitate and sustain the quality improvement effort:

Clear linkage among infrastructure elements is critical to an effective quality management initiative.

Vertical linkage is accomplished by having at least one member of each quality organization be a member (or serve as chairperson) of the next lower level quality organization or team. Horizontal linkage is accomplished by having members of different functional departments serve together on cross-functional teams.

Linkage with all organizational elements, grade levels, socioeconomic classes, technical areas, union representatives and terms of service should be a major factor in selecting representation in groups and teams which are a part of the quality infrastructure representation, to assure the maximum coverage of processes and issues, as well as the maximum potential for innovation and changing the paradigm.

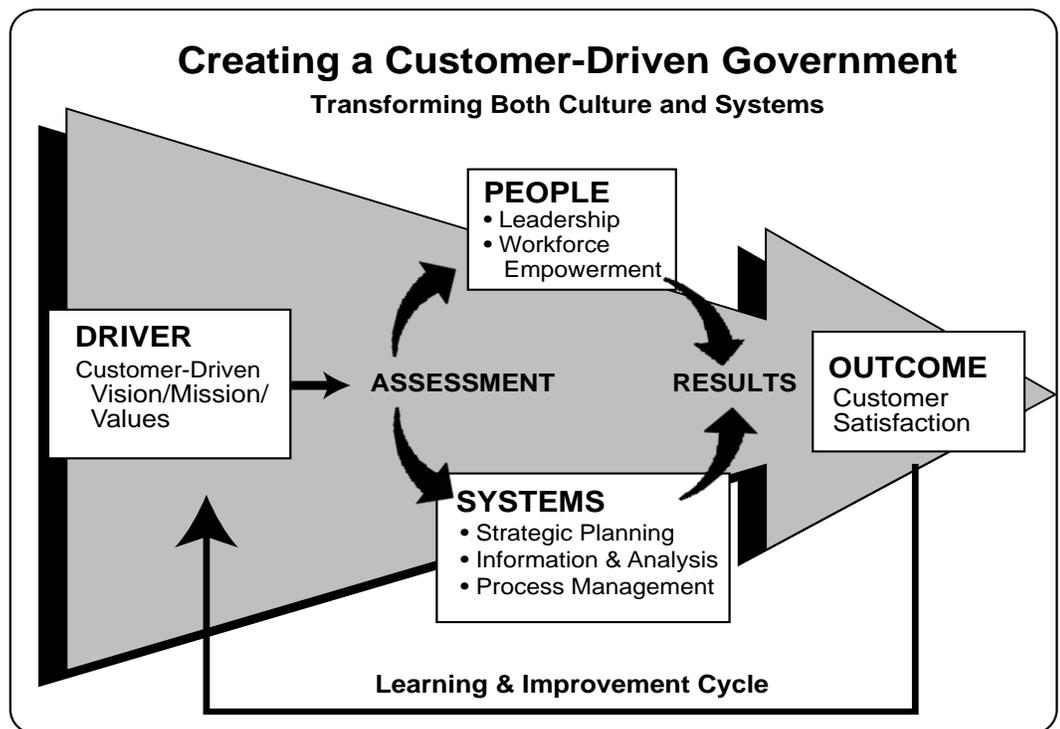
Facilitation should be included in organization operations. Whether called groups or councils, all quality organizations are teams, and the need to facilitate team dynamics for productive and efficient team operations is critical to effective team operations.

Group members should have a natural stake in the outcome, and sufficient knowledge of the product/process.

The Department of Energy's Quality Initiative

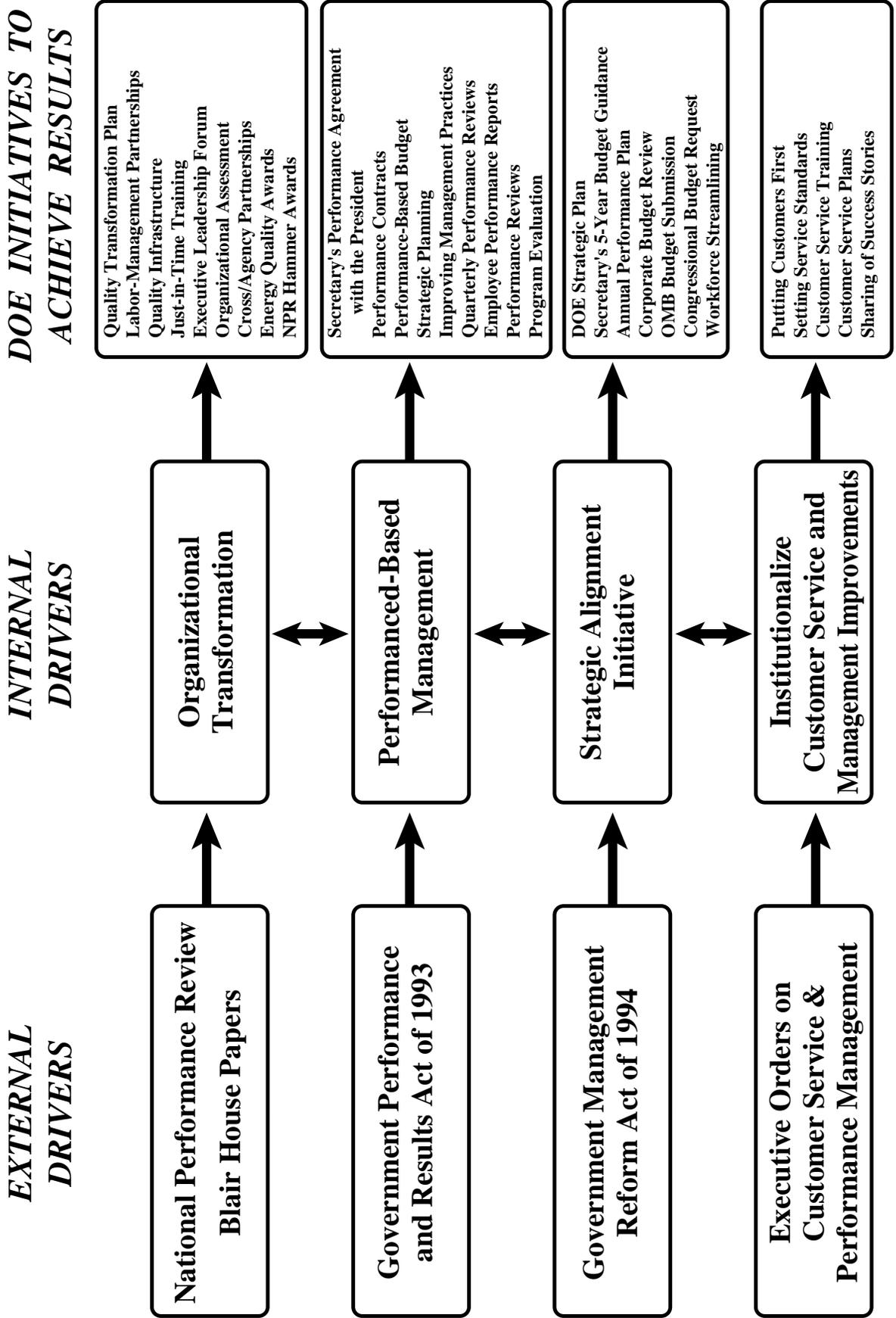
The DOE quality initiative began in 1993 in consonance with the National Performance Review and Reinventing Government initiatives. The 1993 *TQM Guidelines* set forth the operating guidance necessary to achieve a quality culture of involving everyone in controlling and continuously improving how work is done to meet customer expectations of quality, and to measure and produce results aligned with strategic objectives.

The Department of Energy has aligned its systems for strategic and operational planning, resource allocation, and performance management to assess and measure results and to chart progress. This alignment affects change and accountability in the organizational culture, as well as, the systems. Proven principles of quality management provide the unifying theme by which we are transforming the Department of Energy into a world class organization respected for the products and services we provide to the nation. The Department has adopted the model below which illustrates the critical linkage of the drivers, the people, and the systems to produce customer satisfaction and successful outcomes. The chart on the following page details the linkage between external drivers, internal drivers, and the specific DOE initiatives to achieve results.



The Department of Energy Transformation

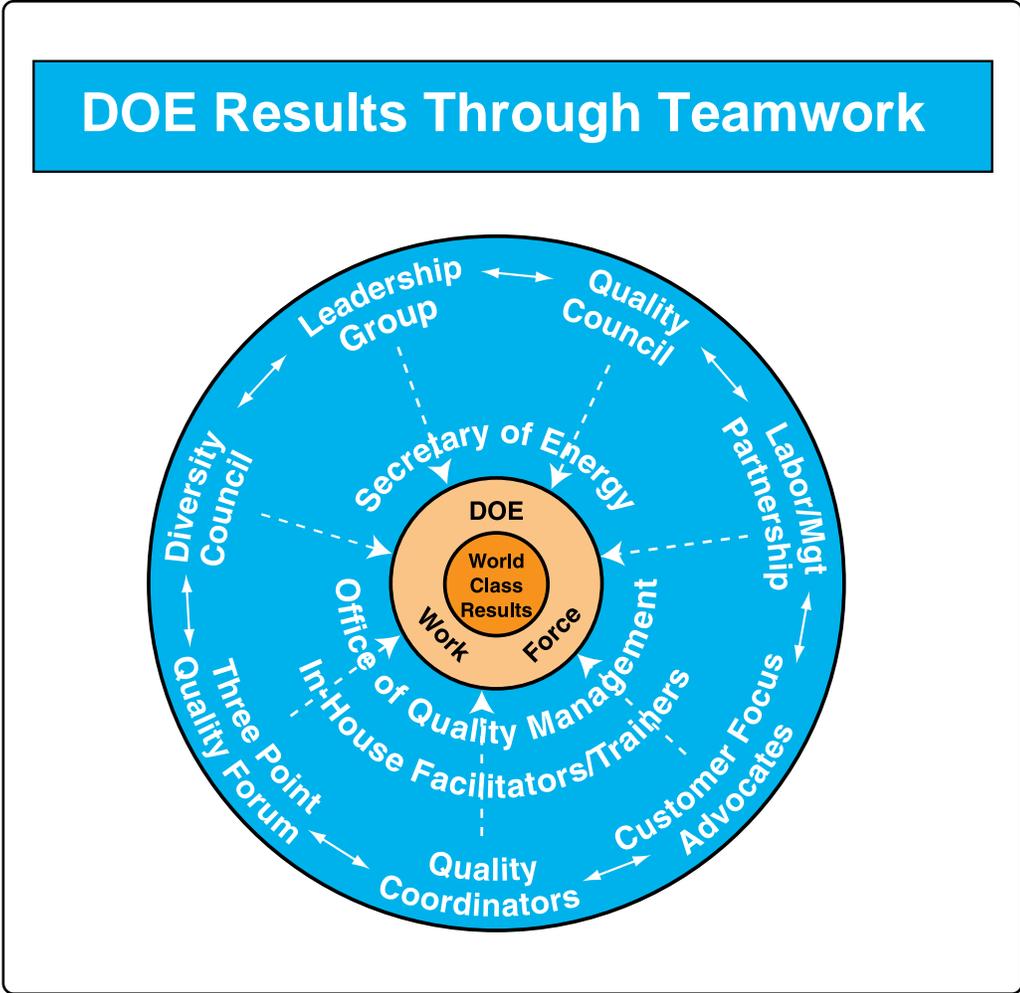
Aligning For Progress and Results



Energy's Quality Initiative

Department of Energy's Quality Infrastructure

The Department of Energy's Quality Infrastructure is multi-tiered. At the corporate-level, the Office of Quality Management serves as the catalyst to achieve a cultural transformation. This permanent organization partners with the infrastructure groups described below to initiate, facilitate and sustain change. The relationship of the various infrastructure groups is depicted below.



Energy's Quality Initiative

The Office of Quality Management. On July 29, 1994, the Secretary of Energy established a direct reporting relationship between the Office of Quality Management (OQM) and the Secretary. This relationship established OQM as the primary catalyst for accelerating the transformation of the Department of Energy to a customer driven, more efficient culture. A primary responsibility of the Office of Quality Management is to design and construct a Department-wide implementation strategy, dedicated to a partnership with Departmental executives and managers, to meet goals and objectives of the Department's quality management and strategic planning initiatives. The efforts of this office directly facilitate the achievement of success in both the Corporate Management strategy (formerly Critical Success Factors of the 1994 DOE Strategic Plan) and the business line strategies. Specifically, the Office of Quality Management provides expertise, training, and information processes in partnership with all Departmental managers and employees in improving and enhancing management practices and in maintaining the focus on continuous assessment, improvement and reengineering activities.

The ultimate customers, or beneficiaries, of all of OQM's products and services are DOE employees, partners, contractors, stakeholders and American taxpayers who benefit from a transformed organization whose dollars are wisely spent. OQM's key products and services include: transformation frameworks to create and sustain a culture of continuous improvement; consulting services, in partnership with the Department's Quality Infrastructure; a corporate facilitator cadre; specialized, just-in-time, value-added training; and relevant, quality information.

OQM provides products and services tailored to the specific needs of our customers. Key products are consulting, strategic plan integration and linkage, departmental transformation, training, information and assessment. Principle accountabilities of the Office of Quality Management are to:

- * develop the Department's strategy and plan to support quality and process improvement efforts designed to reduce costs and improve customer service;
- * deploy quality principles and practices Department-wide and coordinate the integration of cross-departmental activities within the DOE as a result of the National Performance Review;
- * develop and deliver an integrated and systematic quality training curriculum;
- * recognize DOE organizations that demonstrate achievement in quality management, service to customers and commitment to excellence;
- * facilitate sharing of information and best practices which have resulted in improved productivity and customer service; and
- * promote best management practices, Baldrige Assessment and accountability.

Energy's Quality Initiative

The Leadership Group. The Leadership Group has been chartered to champion the quality effort throughout the Department of Energy. Its objective is to serve as the Board of Directors responsible for Departmental Quality Initiatives.

The Leadership Group works closely with the Department's Quality Council to help facilitate the Department's transformation to a quality culture in conjunction with the Office of Quality Management. The Leadership Group's specific responsibilities include:

- * championing the Department's transformation to a quality ethic as it pursues its strategic direction;
- * ensuring that the required resources are committed to the process of quality improvement, customer satisfaction, and workforce empowerment;
- * overseeing the activities of the Department's Quality Council, evaluating and approving implementation proposals, recommending activities, and providing leadership support to its efforts;
- * championing the process for development of performance measures Department-wide;
- * modeling the Department's core values in all aspects of its work; and
- * supporting Department-wide efforts to establish measurable goals, develop reliable and relevant measurements of performance.

Permanent Members:

Secretary of Energy (or designate): Chair
 Assistant Secretary for Human Resources and Administration: Vice Chair
 Associate Deputy Secretary for Field Management
 Director, Office of Quality Management
 Chair, Three-Point Quality Forum

Rotating Members:

Policy, Planning and Program Evaluation
 Environment, Safety and Health
 Energy Programs
 Science and Technology Programs
 Weapons/Waste Cleanup Programs
 Public Affairs
 Laboratory - Multi-Program
 Laboratory - Single Program
 Operations Management
 Other Field
 M & O Contractor

Energy's Quality Initiative

The Quality Council. The Quality Council's objective is to act as the implementation arm of the Leadership Group. The Quality Council is a driving force for quality improvement, leading the Department of Energy to best-in-class status.

The Quality Council is a diverse group of employees at all levels of the Department of Energy. Its responsibilities are to work with the Leadership Group and other quality infrastructure members to implement Energy's Quality initiatives. The group's specific areas of responsibility include:

- * incorporate the Department's vision and core values in the quality implementation process, and model the core values in all aspects of work.
- * support the Department's quality implementation strategy and plan, and the Department's approach towards the development of a quality culture.
- * ensure that data from measurements is incorporated into the development of the approach and the implementation plan.
- * facilitate the development of performance measures and benchmarks.
- * recommend coordination and integration of activities that the Council believes are linked to the quality effort.

Permanent Members

Assistant Secretary for Human Resources and Administration: Chair, and Director, Office of Quality Management and a representative from both NTEU Chapters (Forrestal and Germantown).

Rotating Members

Council membership reflects a diagonal cross section of the DOE family, offices, interest groups, and field elements. Members will rotate to ensure full representation of all program and field elements; subteams will be established as needed to include employees across the Department.

Quality Coordinators (change agents): The quality coordinators reside within program and functional offices. Their reporting position and responsibilities (full or collateral) are determined by individual offices. The quality coordinator is the organization's point of contact on matters related to the quality initiative. Quality coordinator responsibilities include:

- * serving as internal subject matter experts on use and application of quality management tools;
- * partnering with customer focus advocates (see below) and the Office of Quality Management and other Quality Coordinators;

Energy's Quality Initiative

- * assisting in the formation and operation of process action teams by consulting on team building, meeting management, and facilitation;
- * helping in the implementation of the organization's quality plan and;
- * serving as the source of information on quality matters, such as training opportunities, conferences, resource materials, and status tracking of quality improvement effectiveness.

Customer Focus Advocates (CFA) (change agents)*: Executive Order 12862, Setting Customer Service standards, signed by President Clinton on September 11, 1993, requires that each federal agency establish and implement customer service standards to carry out the principles of the National Performance Review. (See www.npr.gov for specifics). To respond to the Administration's Executive Order, in September, 1993, the Assistant Secretary for Human Resources and Administration was asked to champion the customer focus effort, to integrate customer satisfaction into our daily operations, to provide customer focus awareness training, and to make DOE a leader in meeting the requirements of the order. The above guidance drove the establishment of the Customer Focus Advocate concept. Each Energy organization was requested to designate at least one Customer Focus Advocate. The role of the CFA is to:

- * work with management and staff to identify customers;
- * develop an organization-specific customer service plan;
- * manage the customer survey process;
- * benchmark the organization's customer satisfaction processes against best in class; and
- * play a key role in providing (customer service) training.

Since 1993, over 175 DOE customer focus advocates have been tapped by their organizations to drive a more customer-focused culture within DOE. The CFAs receive customer service and related training; develop and update their organization's customer service plans; conduct surveys of customers; and actively participate in the Administration's development of Vice President Gore's customer service report. They also supply the statistics for the Department's "critical few metric" on customer satisfaction. The customer service initiative resides within the Office of Quality Management.

**Note: In many instances the Quality Coordinator and Customer Focus Advocate's duties are performed by the same individual.*

Energy's Quality Initiative

Labor/Management Partnership Council (special interest group).

President Clinton issued an Executive Order in October 1993 directing the establishment of labor/management partnerships. On March 15, 1994, the Labor/Management Partnership Agreement was signed by the National President of the National Treasury Employees Union (NTEU) and the Secretary of Energy. Union and management representatives work in partnership to:

- * improve internal and external communications by sharing reliable/important information, as measured by employee and customer surveys;
- * identify and satisfy customer expectations and accomplishments of business-line missions by applying quality tools and principles in day-to-day functions as measured by trend data showing improvements;
- * improve partnerships at all levels in order to identify and resolve issues and problems quickly and decisively;
- * improve quality of work life for employees, including (a) ensure fairness, diversity and equity in all transactions and (b) provide products/services to help employees with change; and
- * improve employee involvement in moving through change.

Three-Point Quality Forum (special interest group). This Forum is comprised of representatives of all DOE National Laboratories. The name "Three Point" refers to the organization's founding principles:

- * commitment to success of DOE in pursuit of its missions
- * commitment to a process of continuous improvement and best business practices; and
- * the regular sharing of lessons learned in the quest for continuous improvement.

The Three-Point Quality Forum is represented on the Leadership Group, the Quality Council and many of the special teams involved in management improvement.

Energy's Quality Initiative

Secretary's Diversity Council (special interest group). The Diversity Council strives to promote excellence and equality in the Department's workforce that will transform itself and its organizational culture into creating and maintaining a positive work environment; to eliminate unlawful discrimination; to achieve equal opportunity and affirmative action; and to reflect and value at all levels, in all activities and among all its contractors, diversity. The Council is comprised of headquarters and field core groups who:

- * solicit input from a wide variety of affected parties and experts within and outside the Department;
- * identify barriers to excellence, diversity, and equality, and causes of discrimination;
- * review the effectiveness of programs in reaching all groups;
- * promote innovation, quality, and continuous improvement in the Department's performance;
- * assess problems and generate solutions for both immediate and longer-term implementation; and,
- * monitor results in the Department and report directly to the Secretary.

Teams. Quality management relies on teamwork to achieve desired goals and objectives. Teams are the mechanisms for improving processes, solving problems, reengineering, and other quality initiatives. Teams are established for a variety of purposes and have memberships based on the goals and objectives for which the team is established. Several key elements are critical to team success: a charter, defining the teams purpose; a champion/sponsor to provide management support, necessary resources, and removal of obstacles; commitment to employing effective meeting management techniques and project management principles to achieve desired results and participating in appropriate team building sessions to develop the skills necessary to function as a high performing team.

Energy's Quality Initiative

Organizational Assessment

Continuous organizational assessments against a specified set of criteria (i.e. Malcolm Baldrige, President's Award for Quality, Energy Quality Award) provides the organization with data to measure strengths and identify opportunities for improvement. The data identifies areas that may prevent achievement of desired goals, produce resource burdens, or prevent growth. The Office of Quality Management has partnered with Departmental Elements to conduct baseline organizational self-assessments using the President's/Baldrige Quality Award criteria and to develop improvement plans based upon these assessments. The criteria used for the assessments is the same as that used for the Energy Quality Award Program, which is applicable to Department contractors as well as Federal sector elements. Both the Organizational Self Assessment Process and the Energy Quality Award process are designed to promote the use of nationally recognized criteria which promote a systems approach to organizational excellence.

The Department has established several initiatives to become more proactive and to consolidate oversight and inspection/audit activities by different Departmental Elements. Business Management Oversight and Environment Safety & Health Oversight establishes performance based management requirements for the assessment of contractor performance. As well, contractor performance self-assessment is becoming the norm across the Department.

While the term assessment is used in these cases, in order to avoid confusion, the Office of Quality Management refers to the Baldrige-based Organizational Assessment to describe assessing the organization's approach and deployment in achieving quality results. This systems approach directly relates to the Deming approach to quality. Deming recognized that while continuous improvement is a necessary ingredient for quality, customer focus and strategic alignment of organizational elements are also critical parts of the overall system for producing quality products and services.

Energy's Quality Initiative

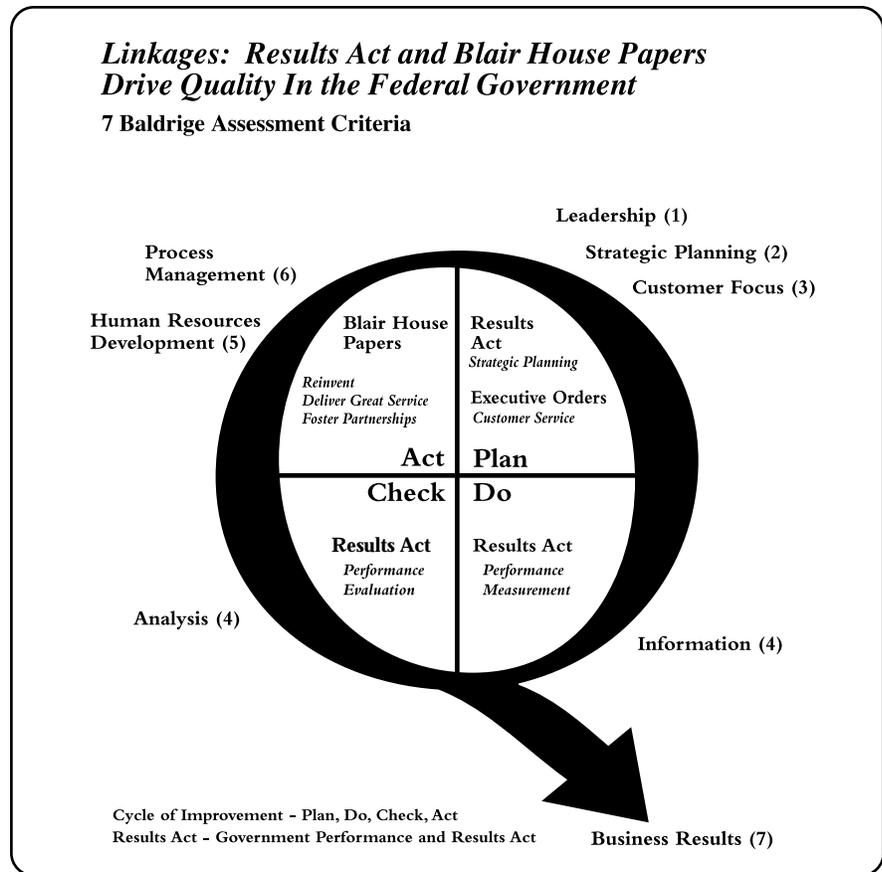
Quality Brings Results: A Sampling of Achievements

Numerous improvements have been identified and reported:

- * Top Management Committed to Organizational Transformation: 1300+ participants (as of April 1997) in the Department's Leaders for a Customer-Driven Organization Forum
- * Improved Efficiencies through team efforts; more than 30 DOE Teams have received Vice President Gore's Hammer Award for improvement efforts and efficiencies; 9 major DOE Organizations have received State Quality Awards; and 31 DOE Organizations have received Energy Quality Awards for outstanding performance improvement results
- * Office of Procurement and Assistance saved \$40 million by cutting red tape and adapting a new performance assessment approach focused on outcomes.
- * Field Management - Life Cycle Asset Management Process Improvement Team reinvented the way DOE manages physical assets; reduced directives from 1200 pages to 15 pages saving \$51 million/year
- * Kansas City Area Office, Office of Technical Management Order Reduction Pilot Team saved the American taxpayer \$2.8 million
- * Office of Safeguards and Security Central Training Academy saved \$1.3 million through use of distance learning
- * Idaho Operations Office/Lockheed Martin Idaho Technologies eliminated non-value-added work saving \$5.6 million in FY 96.
- * Improved Customer Satisfaction: Between 1994-96, external customer satisfaction increased from 73% to 85%
- * "Best in Class" Management Practices
 - 43 Energy Quality Award Winners 1995 and 1996
 - New Mexico, Tennessee, Nevada State Winners
 - U. S. Senate Productivity Award Winner
- * CD-ROM Webmaster's Award to Energy Information Administration
- * In 1995, 92% of DOE organizational elements performed a self-assessment based upon the Malcolm Baldrige criteria. 82% of these organizations developed Action Improvement Plans based upon their self-assessment.
- * In 1996, 23 out of 38 Departmental Elements completed a self-assessment. Implementation of long and short term action plans is progressing. Downsizing and reorganizations have delayed some assessments.
- * Energy Quality Award scores increased from 279 in 1995 to 341 in 1996, a 22% increase.

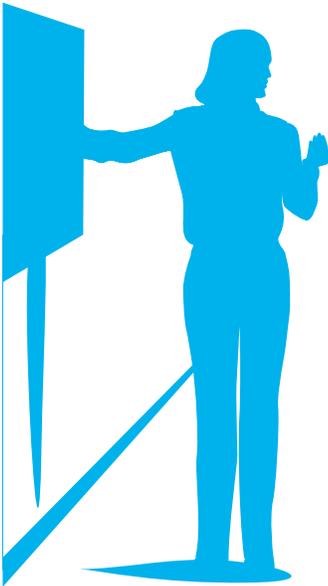
Energy's Quality Initiative

Linkages: Results Act and Blair House Papers



The initiatives of Congress in promoting improved management practices in the Federal Government include the Government Performance and Results Act, along with other reforms in performance management and information systems. These Congressional initiatives combined with specific guidance of the President and Vice President regarding “Reinventing Government”, form the basis of requirements for improving service to the American taxpayer. While these initiatives are new to Government, their underlying concepts of quality products and services and continuously improving products and services, have been embodied in quality management theory and practice. The above graphic illustrates the relationship of these new initiatives to the quality management approach and to the measurement of success in these areas by using the Malcolm Baldrige National Quality Award criteria, which measures excellence in all areas of an organization’s performance.

Appendix 1 — Terminology



Accountability: Responsibility for an activity, accompanied by rewards and recognition for good performance, and adverse consequences for performance that is unreasonably poor.

Activity: Actions taken by a program or an organization to achieve its objectives.

Alignment: The degree of agreement, conformance, and consistency among organizational purpose, vision and values; structures, systems, and processes; and individual skills and behaviors.

Assessment (Organizational): A periodic review of an organization's performance as measured by the Malcom Baldrige or President's Award criteria.

Baseline: The current level of performance at which an organization, process, or function is operating.

Benchmarking: Measuring an organization's products or services against the best existing products or services of the same type.

Best in Class: The organization having the highest quality level for a particular activity.

Bottoms up: Starting with input from the people who actually do the work and consolidating that input through successively higher levels of management.

Buy-in: A state of mind, or process of achieving that state, in which individuals believe in what is being done (as opposed to tolerating it because it is required).

Cascaded down: Starting with a top level of management, communicated to successively lower levels of management and employees.

Continuous Improvement: The unending betterment of a process based on constant measurement and analysis of results produced by the process, and use of that analysis to modify the process.

Core Processes: The processes by which organizations carry out their primary mission and provide customer service.

Core Values: Basic principles guiding all actions by an organization.

Critical Success Factor: Key organizational system (human resources; environment, safety, and health; communications and trust; business practices; business priorities) that is defined by the Department of Energy and must be aligned with organizational goals to achieve those goals.

Cross-cutting: Involving two or more different disciplines or competencies; this term is generally applied to team activities involving representatives from different organizations.

Cross-functional: Used synonymously with cross-cutting.

Culture: The basic attitudes, beliefs, customs, value systems, behavioral norms, and ways of doing things that set a general pattern for organizational activities and actions.

Appendix 1 — Terminology

Customer: One who directly benefits (or should benefit) from a product or service; the individual may be external or internal to an organization. Related terms are stakeholder and surrogate.

Department of Energy: The complex managed by the Secretary of Energy, including its Federal employees, the National Laboratories, and Management and Operating contractors.

Empowerment: Granting people the direction, power, training, information, and rewards that they need to meet their assigned goals and satisfy their customers.

Facilitator: A person trained to guide and focus group or team interaction and decision-making processes.

Feedback: Analyzed measurements of a process result, used to determine appropriate modifications of the process.

Goal: The result that a program or organization aims to accomplish.

Guidance team: A group that assists others in reaching goals and objectives; within the Department of Energy Quality initiative, the Quality Infrastructure serves this purpose.

Horizontal linkage: A direct relationship between individuals or groups within an organization without the existence of a supervisor-subordinate relationship between them.

Individual Development Plan: A plan identifying training and other developmental activities that are expected to lead to increased competence and responsibility of an individual in an organization.

Just-in-time training: The process of providing information to an individual or group immediately before a task is undertaken that will require the information provided in the training.

Leadership Group: Within the Department of Energy, the team appointed by the Secretary of Energy to champion the implementation of the Quality Initiative throughout the Department.

Measurement: A quantitative parameter used to ascertain the degree of performance; also called a metric. Also, the process of applying a measurement or metric.

Outcome measure: Assessment of the results of a program activity compared to its intended purpose.

Output: Program products resulting from program activities.

Output measure: Tabulation, calculation, or recording of program products or effort, expressed in a quantitative or qualitative manner.

Ownership: The acceptance of direct responsibility for achieving the successful and timely outcome of an activity.

Paradigm: The framework within which one perceives reality.

Appendix 1 — Terminology

Partnership Agreement: An agreement between organizations to work cooperatively to improve quality.

PDCA: An acronym for the Plan-Do-Check-Act cycle, see below.

Performance based: Associated with the outcome, rather than the process.

Performance goal: Target level of outcomes expressed as a tangible, measurable objective against which actual achievement can be compared.

Performance indicator: A parameter useful for determining the degree to which an organization has achieved its goals.

Performance measures: Quantitative results used to gauge the degree to which an organization has achieved its goals.

Plan-Do-Check-Act: A closed, iterative loop for continuous improvement in which an activity is first designed (Plan), then executed according to the design (Do), then evaluated to identify opportunities for improvement (Check), and then modified so that the design incorporates the improvements (Act).

Process Action Team: A team established to study and modify a process to improve the functioning of the process itself or to improve the product or results of the process.

Process Enhancement Team: Synonymous with process action team.

Process Improvement Team: Synonymous with process action team.

Process Mapping: Acquiring a clear understanding of how a process presently works, i.e., how work actually gets done, in developing a vision of how it might work better by creating a picture of the key relationships among the processes internal functions and external interfaces as well as its participants, categorized both as customers and suppliers.

Process Owner: Usually the manager with responsibility for the key process outputs.

Program Evaluation: Assessment of how efficiently and effectively the program is meeting its objectives.

Program Planning: Determination of how the program will meet its objectives through its activities, systems and resource use.

Quality Awareness Training: Basic level understanding of the broad concepts of Quality Management.

Quality Coordinator: Within the Department of Energy, one or more person(s) identified as the identified as the contact(s) within an organization with whom other organizations should communicate on matters involving the Quality initiative. Within an organization, person(s) who coordinate and facilitate quality activities.

Quality Council: Within the Department of Energy, a team comprised of members representing diversity in individual characteristics, organizational levels, and organizations; the team represents the entire Department of Energy in recommending the implementation processes for the Energy Quality initiative. The Quality Council is tasked by the Leadership Group.

Appendix 1 — Terminology

Quality Improvement Team: Synonymous with process action team.

Quality Journey: The process of striving for ever-increasing excellence. The term journey connotes a long time period and a lack of prescriptiveness.

Quality Management: A management philosophy that involves everyone in an organization in controlling and continuously improving how work is performed in order to meet customer expectations of quality and to measure and produce results aligned with strategic objectives.

Self-Assessment: A systematic evaluation of an organization's performance performed by the people involved in the activity, with the objective of finding opportunities for improvement and exceptional practices. Effective evaluations are performed relative to an objective set of performance standards, measures, or criteria such as Baldrige.

Situation analysis: Assessment of trends, strengths, weaknesses, opportunities, and threats, giving a picture of the organization's internal and external environment to determine the opportunities or obstacles to achieving organizational goals; performed in preparation for strategic planning efforts.

Stakeholder: Any group or individual who is affected by or who can affect the future of an organization--

customers, employees, suppliers, owners, other agencies, Congress, and critics. See also customer.

Stakeholder analysis: Assessment of the needs and expectations of stakeholders in the results of an organization's or program's activities.

Statistical process control: The modification, as needed, of a process based upon a statistical analysis of results of that process.

Strategic issue: Problem or opportunity affecting the realization of an organization's vision.

Strategic planning: A process for helping an organization envision what it hopes to accomplish in the future, identify and understand obstacles and opportunities that affect the organization's ability to achieve that vision, and set forth the plan of activities and resource use that will best enable the achievement of the goals and objectives.

Strategic Quality Planning: A disciplined effort to define the purpose of the organization and how it will achieve performance results that lead to customer satisfaction and cost effectiveness. Within the Department of Energy, this process includes integration of the Department's vision, mission, core values, quality review team strategic planning, program and laboratory strategic planning, and critical success factors.

Strategies: Courses of action that will lead in the direction of achieving objectives.

Suboptimization: Pursuit of local process improvement goals to the detriment of the overall goals of the organization.

Appendix 1 — Terminology

Supplier: One who provides goods or services to another.

Task team: See process action team.

Team: Two or more people cooperating to achieve an objective.

Top down: Starting with the highest level of management in an organization and propagating through successively lower levels of the organization.

Total Quality Management: See Quality Management

Trivial many: The vast majority of problem causes, which collectively produce a relatively small percentage of the problems in an organization or process.

Vertical linkage: A relationship between two groups within an organization in which communications flow is enhanced by common membership of an individual in the hierarchy on successively higher or lower groups.

Vision statement: A statement of what the organization hopes to be like and to accomplish in the future.

Vital few: The small minority of problem causes, which collectively produce a dominant percentage of the problems in an organization or process.

Walk the talk: Operate in a manner consistent with the manner in which one professes to operate and in which others are asked to operate.

Win-lose: An interaction between two parties that is to the advantage of one and the detriment of the other.

Win-win: An interaction between two parties in which both parties receive net benefit.

Appendix 2 — Some Recommended Readings and Web Sites

Quality Management Implementation Strategy:

Carr, David K. and Littman, Ian D. *Excellence in Government: Quality Management in the 1990 s*. Washington, D.C.: Coopers, Lybrand, 1993.

Brown, Hitchcock, and Willard, *Why TQM Fails and What to Do About It*, New York, Irwin, 1994.

Equal Employment Opportunity Commission Workshop Handout, Do's and Dont's for Starting Federal TQM Programs. Washington, D.C., 1988.

Feigenbum, Armaud V., *Total Quality Control*, New York: McGraw-Hill, 1983.

Osborne and Gaebler, *Reinventing Government*, New York: Plume, 1993.

Employee Empowerment:

Byham, William and Cox, Jeff, *Zapp! The Lightning of Empowerment: How to Improve Productivity, Quality and Employee Satisfaction*. New York, Harmony Books, 1991.

Daniels, Aubrey C., *Bringing Out the Best in People: How to Apply the Astonishing Power of Positive Reinforcement*, New York, McGraw-Hill, Inc., 1994.

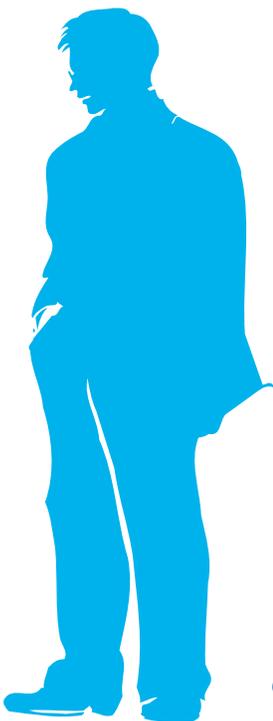
Quality:

Crosby, Philip B. *Quality is Free: The Art of Making Quality Certain*, New York: McGraw Hill, 1979.

Juran, Joseph M. Juran, *Leadership for Quality: An Executive Handbook*, New York, The Free Press, 1989.

Hunt, V. Daniel, *Quality in America*. Homewood, Ill., Technology Research Corp., 1992.

AT&T Quality Improvement Process Guidebook, AT&T, Baskin Ridge, New Jersey, 1988.



Appendix 2 — Recommended Reading

Deming, W. Edwards, *Out of the Crisis*, MIT Center for Advanced Engineering Study, Boston, Mass., 1986.

Porter, Michael, *Competitive Advantage, Creating and Sustaining Superior Performance*, New York, Free Press, 1985.

Peters, Tom and Austin, Nancy, *A Passion for Excellence*, Random House, New York, 1985.

Crosby, Philip B, *Quality Without Tears*, American Library, New York, 1985.

Zeithaml, Parasuraman, and Berry, *Delivering Quality Service*, New York, The Free Press, 1990.

Ernst and Young and the American Quality Foundation, *The International Quality Study - Best Practices Report - An Analysis of Management Practices that Impact Performance*, 1992.

Teams:

AT&T Technologies, *Process Quality Management and Improvement Guidelines*, Greensboro, 1988.

Cooksey, Clifton, Beans, Richard and Eshelman, Debra, *Process Improvement, A Guide for Teams*. Arlington, VA, Coopers & Lybrand, 1993.

Harrington, H. J., *Business Process Improvement*, New York, McGraw-Hill, 1991.

Heskett, Sasser, and Hart, *Service Breakthroughs*, New York, The Free Press, 1990.

Scholtes, Peter R, *The Team Handbook: How to Use Teams to Improve Quality*, Madison, Wisc., Joiner Associates, 1989.

Personal Behavior:

Covey, Stephen R, *The Seven Habits of Highly Effective People: Restoring the Character Ethic*, New York, Simon & Schuster, 1990.

Covey, Stephen R, *Principle-Centered Leadership*, New York, Fireside, 1991.

Appendix 2 — Recommended Reading

Strategic Planning:

Guidelines For Strategic Planning, DOE/PE-0099, July, 1991.

King, William R. and Cleland, David I, *Strategic Planning and Policy*, New York, Van Nostrand Reinhold Co., 1978.

Steiner, George A, Strategic Planning: *What Every Manager Must Know*, New York, The Free Press, 1979.

Ackoff, Russell L., *Creating the Corporate Future*, Wharton School of Business University of Pennsylvania, New York, John Wiley & Sons, 1981.

Steiner, George A., Miner, John B., and Gray, Edmund R. *Management Policy and Strategy*, New York, MacMillan, 1982.

Ohmae, Kenichi, *The Mind of the Strategist*, New York, Penguin Books, 1983.

Bryson, John M., *Strategic Planning for Public and Nonprofit Organizations*, San Francisco, Jossey-Bass Publishers, 1990.

Wilcox Jr., William J., *An Introduction to Strategic Planning*, Martin Marietta Energy Systems, Inc., Y-12 Plant, YAD-599, Oak Ridge, Tenn., 1989.

Pfeiffer, J. William, Goodstein, Leonard D., and Nolan, Timothy M., *Shaping Strategic Planning (in association with University Associates, Inc.)*, San Diego) Glenview, Ill., Scott, Foresman, and Co., 1989.

Fueling A Competitive Economy, United States Department of Energy Strategic Plan, DOE/S-0108, April, 1994

Business Process Reengineering:

Andrews, Dorine C., and Susan Stalick, *Business Reengineering: The Survival Guide*, Prentice Hall, New York, 1994.

Carr, David and Henry Johansson, *Best Practices In Reengineering*, McGraw Hill, 1995.

Caudle, Sharon L., Dr., Reengineering for Results: *Keys to Success from Government Experience Section 2: Understand Reengineering*, National Academy of Public Administration, Washington, DC, 1995.

Appendix 2 — Recommended Reading

Champy, James, Reengineering Management: *The Mandate for New Leadership*, Harper Business, New York, 1995.

Hammer, Michael and James Champy, *Reengineering The Corporation: A Manifesto for Business Revolution*, HarperCollins, New York, 1993.

Hammer, Michael, and Steven Stanton, *The Reengineering Revolution*, Harper Business, New York, 1995.

Hyde, A. C., *Reengineering and Process Innovation: Management Fundamental*, The Brooklyn Institution, 1995.

Linden, Russell M., *Seamless Government: A Practical Guide to Re-Engineering In the Public Sector*, Jossey-Bass Publishers, San Francisco, 1994.

Linden, Russell M., *From Vision to Reality: Strategies of Successful Innovators in Government*, LEL Enterprises, Charlottesville, VA, 1990.

Strassmann, Paul A., *Reengineering*, Information Economics Press, New Canaan, CT, 1995.

Customer Satisfaction:

Barsky, J., *World Class Customer Satisfaction*, New York, Irwin, 1995.

Denton, D.K., *Horizontal Management: Beyond Total Customer Satisfaction*, New York. Macmillan, 1991.

Dutka, A., *AMA Handbook for Customer Satisfaction*, Lakewood, IL, NTC Publishing, 1994.

Horovitz, J., and M. Panak, *Total Customer Satisfaction*, New York, Irwin, 1994.

Lytle, J., *What Do Your Customers Really Want?*, Chicago, Probus Publishing, 1993.

National Quality Research Center, *1994 American Customer Satisfaction Index Methodology Report*, September, 1994.

Appendix 2 — Recommended Reading

Naumann, E., and K. Giel., *Customer Satisfaction Measurement and Management*, New York, ITP, 1995.

Rust, R.T., and R.L. Oliver, *Service Quality: New Directions in Theory and Practice*, Thousand Oaks, Sage, 1994.

Yi, Y., "A *Critical Review of Consumer Satisfaction*" in V.A. Zeithaml, editor, *Review of Marketing 1990*, Chicago, American Marketing Association, 1990.

Performance Measurement:

Corbeil, Ronald C., *Action-Oriented Evaluation In Organizations: Canadian Practices*, Wall & Emerson, Inc, Toronto, 1992.

DOE Performance Indicators For Environment, Safety & Health, U.S. Department Of Energy, Office Of Environment, Safety And Health, March 29, 1996. (<http://www.eh.doe.gov:80/systems/pi.html>).

DOJ Manager's Handbook On Developing Useful Performance Indicators, U.S. Department Of Justice, Version 1.1, April 1995.

Guidelines For Performance Measurement, U.S. Department Of Energy, DOE G 120.1-5, June 1996

How To Measure Performance, A Handbook Of Techniques And Tools, U.S. Department Of Energy, Training Resources And Data Exchange, Performance-Based Measurement Special Interest Group, October 1995 (<http://www.llnl.gov/pbm/handbook>).

Kaplan, Robert S. and Norton, David P., *The Balanced Scorecard, Measures That Drive Performance*, Harvard Business Review, January-February 1992.

Kaplan, Robert S. and Norton, David P., *Putting The Balanced Scoreboard To Work*, Harvard Business Review, September-October 1993.

Kaplan, Robert S. and Norton, David P., *Using The Balanced Scorecard As A Strategic Management System*, Harvard Business Review, January-February Review, 1996.

Katzenbach, Jon R. and Smith, Douglas K., *The Wisdom Of Teams*, Harper Collins Publishers, Inc., New York, 1994.

Appendix 2 — Recommended Reading

Kirkendall, Nancy, *Organizational Performance Measurement In The Energy Information Administration, Proceedings Of The 1996 Annual Research Conference*, Bureau Of The Census, U.S. Department Of Energy, August 1996.

METC Performance Improvement Measurement Methodology, U.S. Department Of Energy, Morgantown Energy Technical Center, May 15, 1994 (<http://www.metc.doe.gov/tqm.html>).

Prichard, R.D., *Measuring And Improving Organizational Productivity: A Practical Guide*, Praeger, New York, 1990.

Rush, Brian and Ogborne, Alan, *Program Logic Models: Expanding Their Role And Structure In Program Planning And Evaluation*, The Canadian Journal Of Program Evaluation, 6:2, 1991.

Self Assessment and Annual Review Manual, Appendix F, Section A, University of California, Office of the President, Laboratory Administration Office, April 1997 (<http://labs.ucop.edu/library.html>).

Sink, D. Scott and Tuttle, Thomas C., *Planning And Measurement In Your Organization Of The Future, Industrial Engineering And Management Press*, Norcross, Georgia, 1989.

Thor, Carl G., *The Measures Of Success: Creating A High Performance Organization*, Oliver Wright Publications, Inc, Essex Junction, Vt, 1994.

Web Sites of Interest:

- www.doe.gov (Department of Energy)
- www.explorer.doe.gov (Department of Energy)
- www.npr.gov (National Performance Review)
- www.quality.nist.gov (Malcolm Baldrige Award)

We also recommend using various search engines to locate other web sites.

Appendix 3 — Team Checklist

Things to Do Before Beginning Process Improvement

Clarify the project mission.

- * What problem or process are we studying?
- * What data do we have to characterize the process?
- * What is the charter of this team?
- * How much power and authority do we have as a team?
- * What decisions can we make on our own?
- * What does our Sponsoring Manager expect of us?
- * What would we like as our team name?

Discuss benefits and rewards of participation and potential outcomes.

- * What are the expected outcomes?
- * What do we gain from doing this?
- * How will we be rewarded and recognized for our work?

Clarify roles.

- * Who does what?
- Team Leader
- Sponsoring Manager
- Facilitator
- Team Member
- Scribe/Recorder

Identify and discuss concerns, expectations, and hopes for the project.

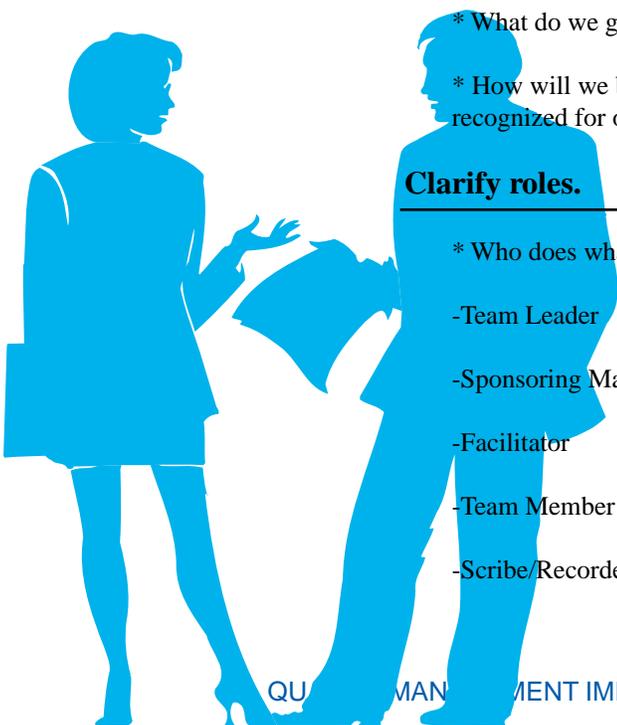
- * What does each member want from this project?
- * What are the fears and concerns?

Discuss time lines.

- * How often will we meet?
- * For how long?
- * Where?
- * What is our target completion date?
- * How does this fit in with other priorities?
- * How will we communicate?
- * Agendas
- * Minutes
- * Record-keeping procedures
- * Presentations (when, to whom, how often?)

Determine necessary support resources and service.

- * Where do we go for help?
- * Secretarial support?
- * Computer?
- * Technical services?
- * Printing services?



Appendix 3 — Team Checklist

Identify ground rules, behavioral and operating norms.

- * How do we want to interact?
- * What do we expect of each other?
- * How will we handle decision-making?
- * How will we handle differences in opinions?
- * What happens when members miss a meeting?
- * How will we ensure the completion of work?

Some suggested norms:

- * attendance is high priority
- * full participation
- * listen for possibility
- * all points of view equal and valuable
- * diversity and differences of opinion encouraged
- * straight talk
- * questions welcome
- * decision-making by consensus
- * stay on track, stick to the agenda
- * honor time and promptness (start and end on time)
- * one conversation at a time (watch interruptions and side conversations)
- * get closure on all items

* shared responsibility for all tasks and assignments

* honor assignments

* scribe/recorder role - rotated each meeting

* minutes distributed within two days after each meeting

* evaluation at end of each meeting

Determine evaluation methods

* How will we determine how we are doing both in our problem-solving and in our team efforts? (What we are working on as well as how we are working.)

Clarify commitment level

* Does each member still choose to participate in light of the previous information?

* Where will this fit with members' other priorities?

Appendix 4 - Effective Meetings

Ask yourself:
Is this an effective meeting?

"IF I WERE TO SUMMARIZE IN ONE SENTENCE THE SINGLE MOST IMPORTANT PRINCIPLE I HAVE LEARNED IN THE FIELD OF INTERPERSONAL RELATIONS, IT WOULD BE THIS: *SEEK FIRST TO UNDERSTAND, THEN TO BE UNDERSTOOD.* THIS PRINCIPLE IS THE KEY TO EFFECTIVE INTERPERSONAL COMMUNICATION."

Stephen R. Covey

Do you know the purpose of this meeting?

Do you have an agenda?

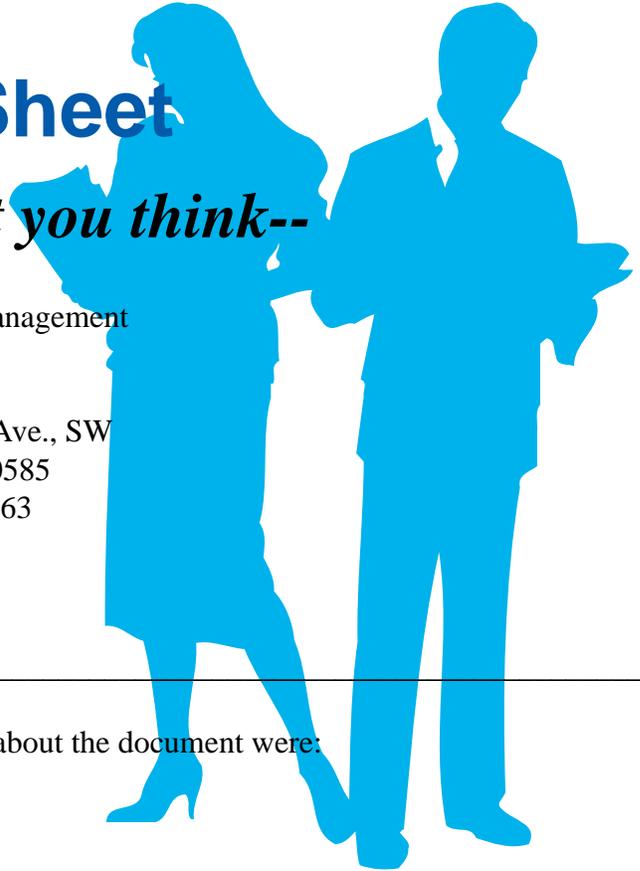
Do you know your role and are you prepared?

Do you know how and to whom the results will be communicated?

Appendix 5 — Reader Response Sheet

Tell us what you think--

Office of Quality Management
Room 4B-172
Forrestal Building
1000 Independence Ave., SW
Washington, D.C. 20585
Phone: (202) 586-5363
Fax: (202) 586-6056



The things I liked most about the document were:

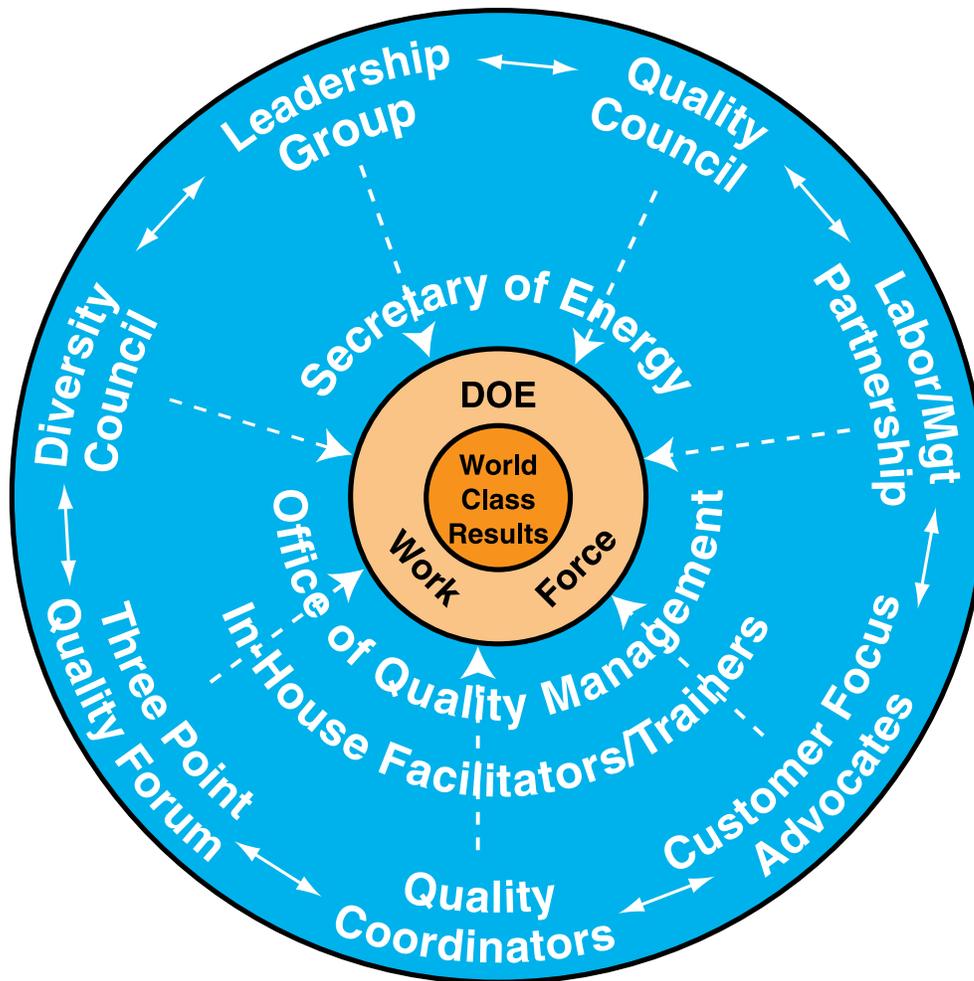
The things I liked least about the document were:

In the next update, the things I would like to see added or changed are:

Other comments, suggestions and corrections:

Respondent's Name, Title, Phone Number (optional):

Department of Energy Results Through Teamwork



U.S. Department of Energy
Washington, DC

www.explorer.doe.gov:1778/QMguidelines.html