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**A RESEARCH STUDY TO DETERMINE
THE EFFECT OF TOTAL QUALITY MANAGEMENT
ON EMPLOYEE MORALE IN
PLANT PROCEDURES DIVISION
AT EG&G, ROCKY FLATS, INC.**

by

Erleen F. Casey

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**A research project report submitted to the faculty
of the University of Phoenix in partial fulfillment
of the requirements for the degree of
Bachelor of Arts in Management**

January 1994

MASTER

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EXECUTIVE SUMMARY

A Research study to Determine the Effect
of Total Quality Management (TQM) on Employee Morale
in Plant Procedures Division at EG&G, Rocky Flats, Inc.

by

Erleen F. Casey

EG&G at Rocky Flats, Golden, Colorado, experienced a high amount of low morale, due to the plant site having been designated to close, and the uneasiness of the working force was very visible.

Some employees accepted early retirement in October 1992, however, all received letters of 120 days notice in March 1993, and were advised several cuts would be made by October 1, 1993. This information alone caused many insecurities in employees, and caused morale to decrease even more.

This is an in depth study of morale, which was upgraded in Plant Procedures Group (PPG), through the effect of TQM. The primary research included a survey of employees with results included. The study also increased additional questions in PPG, some of which were added to the agenda of the Process Improvement Team (PIT) to improve PPG in the eyes of customers.

Statistics did show that morale improved, not necessarily because of TQM or the progress of the Process Improvement Team (PIT), but due to efforts of the staff implementing the principles of TQM the best they knew how.

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This research paper is dedicated to my family (small in number, but BIG in CARING), to whom I give a humongous **THANX !**

First to two special people I worked with, whom I considered my work family. My lead Ann and her supervisor John. Without their constant persistence, continual support, faithful patience, and devoted belief in my talents, I would not have accomplished my goal. Thanx to both of you!

Second to my real biological family, all at home together. My oldest daughter Janice, her husband Randy, and my grandchildren, Randall, Jacqueline, Rebecca, Ryanna (who happen to be their children), and Scott, and my youngest daughter LaDonna, who attended college at Manhattan Christian College (MCC), in Manhattan, KS, and took a break to work at Montessori School in Louisville, CO, to enable her to return to MCC. They all should know how much I appreciated their tolerance, words of acceptance, encouragement, and respect in my decision to complete my degree (with only a 30 year break in school), faithful determination to prod me at the right time, sheer devotion, and pure love. Their endurance level was very high, as there were many times I inconvenienced them, and sometimes down-right ignored them! We had a very close and devoted relationship, and without their continuous love, and loyal support, I would not have even begun this encounter, much less be able to have had the strength to sustain me through the adventure to succeed.

Third, but by no means least, I give a big special CONGRATS to me, as I know what all I have given up and what all I have had to "tell myself" just to make it through. I have benefitted from the support of my "family" and have done well, but I also know I certainly deserve all the accolades I will receive!

THANX and a big round of applause to us all!

A word cloud consisting of the word "applause" repeated multiple times. The words are arranged in a circular pattern, with some words appearing larger than others, creating a sense of depth and movement. The words are black and set against a white background.

SPECIAL DEDICATION

This is unusual, I know, but I am taking the liberty to have two dedications.

The first dedication on the previous page was made approximately 1 year after I started this project at the University of Phoenix, and I would prefer allowing that one to remain. However, in working these many months on this paper I grew to become acquainted with a very intelligent, but caring man, someone who has changed so many people's lives, that the number would be so high no one could read it. That man, of course, is W. Edwards Deming, the name always associated with Total Quality Management. W. Edwards Deming died shortly after Christmas this past year, and I grieved his death. This is even though I never met him, or really knew him, but I did know of his work, and saw him in some of his many lectures captured on video tapes which will be used, I'm sure, by countless numbers of more people in this world whose lives he will touch, even though he is no longer residing on this earth.

Thank you, Dr. Deming, for all you gave to us.

CHAPTER 1

Introduction

Problem Statement/Purpose.

The Research Problem.

Due to the teeter-totter status of job security at EG&G, Rocky Flats the past two years, through cuts in production, cuts in the budget, and cuts in personnel, plus with the irregularity between the new hire and promotion systems, poor management in a few areas, poor communication, lack of recognition, lack of rewards for hard work, and a perception from some employees of lack of leadership and vision in some managers, employee morale was considerably low. Employees at EG&G, Rocky Flats did not know from day to day if they would be employed the next day, or even if they would be in the same department. Some heads of departments even published in weekly highlights that employee morale was extremely low.

According to Webster, morale is the mental and emotional condition (as of enthusiasm, confidence, or loyalty) of an individual or group with regard to the function or tasks at hand; a sense of common purpose with respect to a group; the level of individual psychological well-being based on such factors as a sense of purpose and confidence in the future; and self-esteem is a confidence and satisfaction in oneself.¹

Rocky Flats employees had almost "none of the above!" There were posters in several areas employees put up that certainly gave the impression morale is low. The different "sayings" also reflected employee self-esteem as low, in addition to morale:

THIS JOB IS A TEST.

IT IS ONLY A TEST.

Had it been an actual
job, you would have
received bonuses,
raises, and promotions.

NOTICE

Due to
Government
Spending

The Light at the
End of the
Tunnel
has been Turned
OFF"

Being a part of a team does build self esteem in employees, supervisors and non-supervisors alike, but most prominently in non-supervisors. Using these ideas and processes could lift the morale of employees. Happier employees mean better workers and products they produce, which in turn means happier customers who receive the finished product.

Research Purpose.

The primary purpose of the study was to determine, through the formation of the Process Improvement Team by implementation of TQM at EG&G, Rocky Flats, if morale improved in Plant Procedures (a department of approximately 100 people under the direction of the Engineering and Technology Manager.)

Through the use of a survey, and with a portion of some of the minutes from the weekly ET Newsletter, the ET Update, was it ascertained if there was a relationship between the application of TQM at Plant Procedures Division of EG&G, Rocky Flats, and employee morale. Was it possible to determine TQM was beneficial and advantageous not only to current employee morale, but to improve morale of future employees at EG&G, Rocky Flats, as well?

Roughly 100 people in Plant Procedures were the sample for the entire population of EG&G at Rocky Flats of several thousand people. These people included salary grade employees in exempt and non-exempt categories, plus contractor/temporary employees.

Employees needed to know the General Managers were supporting the implementation of the TQM, as well as supporting them, the employees. They needed the support not only as employees, but as human beings, and that had not happened yet.

According to a letter issued March 30, 1993, when the EG&G Rocky Flats Process Improvement Review was conducted, a review team consisting of the Corporate Director of Quality for EG&G, and the Director of Quality Resources for EG&G Energy Measurements reviewed the progress for ROCKY FLATS. The letter reflected that while some parts of the TQM were beginning to combine into a workable plan which could cause improvement, a complete TQM system did not exist. The review team noticed that Rocky Flats had not utilized a 'TQM Model' to assist in the designing of the TQM system. Because of the lack of a model to establish the 'completeness' of what was currently in place, it was

difficult to test the TQM system. A model was recommended that would give more credibility to the customer as well as the work force, which would help avoid mistakes and omissions that "went along with" do-it-yourself TQM designs. An excerpt from the letter reflected the following information:

"during our review, we were unable to find any general, organizational goals for TQM.... While this does not say that goals of this kind do not exist, it indicates that the organization's TQM goals, ... are not well understood. While they may exist, they are not seen to exist as part of the 'TQM effort'." 2

Problem Background.

The following recapitulation might better define how conditions were at EG&G, Rocky Flats. To furnish the information may assist to interpret better the poor attitude many of the employees had, and the excellent reasons they had to justify their bad perspective.

There had been many transitions at EG&G, Rocky Flats in the past 15 years alone. From 1991 through the present, January 1994, EG&G had been the contractor under the Department of Energy. Earlier Rocky Flats had been operated by Los Alamos/Sandia Laboratories, Dow Chemical, and Rockwell

International, to name a few of the former contractors. The main reason why many of the employees did not even want to participate in the new TQM program was because the employees had been through so many different transitions. They felt like "what's the use," or "why bother." There were many more newer employees, however, who felt like "why not—it's worth the effort!"

Periodically during late spring and early summer 1991, announcements were made on the plant intercom system that people over 60 who had 15+ years at EG&G, Rocky Flats could take an early retirement. The cut-off date for their decision was 1 July 1992, but that date was postponed several times and concluded as 30 September. Each time the date changed, upper management changed the dates for turn-in of the "people to cut list ". In a few areas of Rocky Flats the manager was required to submit a list to upper management of at least three people in their department to place on the lay-off list. This list became known in some groups under those managers, as the "hit list".

In October 1992, a letter, subject: "Trying Times and Emotional Issues", was sent to all EG&G, Rocky Flats employees, from the Employee Assistance Program. The program was implemented to help with emotional issues and stresses the employees, or their family members, might be experiencing.

Late November 1992 a letter from the Plant General Manager, subject: "Rocky Flats Transition Plan", was sent to all employees. The letter outlined the transitional work that was needed to be accomplished to prepare EG&G, Rocky Flats for its move from a weapons production facility to one highlighted on environmental cleanup, waste management, production contingency, and economic development. During this same period, TQM was implemented at EG&G, Rocky Flats, to set in motion the new ideas of TQM which might cut the waste in production, plus improve employee morale at the same time.

Then the week before Christmas 1992 they were informed that all Rocky Flat employees would be receiving a nation-wide EG&G letter that to preclude possible lay-offs in the near future, there would be no merit increases, or promotions for the next year. Some employees were quite irate, as promotions and/or raises had been promised, and now nothing would transpire.

Several recommendations had popped up in an attempt to "save the Flats". One solution was to have a complete turn-around of functions at Rocky Flats. This would be good for environmental reasons, as well as the economy. Due to no direct knowledge of the facts, a good guess by the writer would be

that maybe earlier in the history of Rocky Flats, 90% of the plant site was producing some hazardous type functions or waste, and 10% were working on environment type functions. If turned around, 90% would change to environment and 10% to cleaning up hazardous waste. However, this plan would not satisfy the people who wanted to shut down the site completely, and thus do away with the stress which was affecting employee morale.

Classes in TQM were begun at Rocky Flats to train employees and ask for cooperation in supporting the new system. The classes reflected the principles of TQM originally laid down by W. Edwards Deming and J. M. Juran who helped Japan turn around in the international market shortly after WWII. These goals included customer satisfaction, continuous improvement, empowerment of employees, teamwork, scientific approach, and leadership. These were high ideals and goals for all employees of Rocky Flats to strive for in a troubled time.

The TQM plan at Rocky Flats was called the Process Management Team (PMT), or Process Improvement Team (PIT). In the Plant Procedures Group another plan which used the PIT to succeed successfully was called the Enhancement Team (ET). Employee input to the team was always requested.

To provide a formal system that promotes co-participation between employees and management in communication and resolution of issues was the objective.

The ET originally consisted, at the minimum, one manager and one representative from each group within Plant Procedures. At that time there were at least fourteen members. Representation on the team was on a rotating basis within each group to allow participation by other members of the Plant Procedures organization.

Research Question.

The question that needed to be answered to fulfill the purpose of this research project was whether or not there was a relationship between the implementation of the Enhancement Team with PIT and employee morale. In order to determine if there was a relationship, the following questions needed to be addressed in the surveys, as a minimum:

- a. Is TQM is being implemented as it should be at Rocky Flats?
- b. Has employee moral improved due to TQM?

- c. Has communications between non-supervisory employees and supervisors/managers improved since implementation of TQM/ET?
- d. Has there been evidence ET is "working" and should continue?
- e. Has the level of morale improved in Plant Procedures since the formation of the ET?
- f. Has the ET done as well as originally anticipated?

Operational Definitions.

The data for this project was obtained the following ways. A letter sent to all members of Plant Procedures. (See Appendix A.) The Survey Questionnaire which was attached to the above letter. (See Appendix B.) A limited number of weekly minutes which showed the accomplishments and problems the ET with PIT has experienced and solutions to problems the ET might have encountered. (See Appendix C.) Data formulated which was received from surveys distributed in August 1993 to employees in the different groups under the Plant Procedures Director. (See Appendix D.)

) The level of agreement with the survey statements was evaluated using a five point scale. The possibility of ET making a difference in morale was defined as a score greater than an average level of some type of agreement, which was a score of four or greater.

Dependent and Independent Variables

) The independent variables used to test the relationship in this study were the perceived level of the implementation of ET and the training of employees in the concepts of TQM through the formation and continued development of the Enhancement Team in Plant Procedures by doing a case study of the effectiveness of the ET.

The dependent variable is the level of morale.

Technical and Other Terms.

Critical Success Factor	Leadership practiced by managers who embrace the principles, model the behavior, and "walk the talk" of TQM. ³
Customers of the process	Groups who receive outputs of the process and products actually received. ⁴
Dependent Variable	Variable whose value depends on the value of an independent variable. ⁵
Effectiveness	Refers to the quality of an output; the state of producing a desired effect. ⁶
Efficiency	A measure of performance that compares output production with cost or resource utilization. ⁷
Enhancement Team (ET)	The name given the TQM team under the Director of Plant Procedures.
<u>ET Update</u>	A printed set of minutes distributed to all employees in Plant Procedures Group, usually weekly, after the ET meetings.
Exempt	A salaried employee, grade 41 or higher.
Hypothesis	An unproven proposition or supposition that tentatively explains certain facts or phenomena; a proposition that is empirically testable.

Independent Variable	Variable whose value does not change when the value of other variables are changed. ⁸
Lower Control Limit (LCL)	If all the points on the control charts fall within the UCL and LCL, the process is in a state of statistical control. ⁹
Mission Statement	Broad organizational goal, based on planning premises, which justifies an organization's existence. ¹⁰
Non-Exempt	A salaried employee, grades 23 to 28.
Operations	Day-to-day activities an organization uses to transform inputs into outputs. As such, operations can be viewed as a system. ¹¹
Plant Site	The main part of Rocky Flats EG&G 'city', off Highway 93, between Golden and Boulder.
Performance	The level of actual accomplishment in relation to a desired objective or goal. ¹²
Positive Reinforcement	The use of positive consequences to encourage desirable behavior.
Process-Control Procedure	Quality control procedure for monitoring quality during production of the product or rendering of the service. ¹³
Process Management Team (PMT)	Team in place for life of process. Responsible for managing the process and identifying areas for improvement. Create PIT to improve selected areas, as appropriate. ¹⁴

Process Improvement Team (PIT)	Short-term team established by PMT and comprised of members who are extremely familiar with the subprocess to be improved. Responsible for identifying root causes, developing solutions, and monitoring/ documenting improvement. ¹⁵
Quality	"The degree to which an item or process meets or exceeds the user's requirements and expectations." (DOE Order 5700.6C) ¹⁶
Quality Circles	Small groups of workers and managers who meet regularly to discuss and resolve problems of productivity, quality, and the work place in general. The impact of quality circles appears to be significant ¹⁷
Quality Control	Strategy for managing each state of production so as to minimize or eliminate errors. ¹⁸
Total Quality Management	Strategic commitment to improving quality by combining statistical control methods with a cultural commitment to seeking incremental improvements that increase productivity and lower costs. ¹⁹
Upper Control Limit (UCL)	The UCL equals the total defectives divided by the number of employees. If all the points fall within the UCL and LCL, the process is in a state of statistical control. ²⁰
Work Statement	A brief statement of work which summarizes the major process. ²¹

Hypotheses and Sample.

Hypotheses.

Because EG&G employs more than 5,000 people, the decision had been made to poll the employees in Plant Procedures only, and to ascertain the findings prior to polling the entire workforce, as the TQM Team plans to do that study later. Permission and approval had been obtained from the Director of Plant Procedures, after reading the letter and the survey, to conduct the survey. The Director knew the survey questions were already developed, when a discussion arose in an ET meeting about the doubtful future existence of the ET. The Director requested distribution of the survey at once. A good side to the new plan of urgency was there was a closer surveillance over the number of surveys sent out for distribution, and to ascertain that all (and if not all, most) surveys were returned. This accounts for the 90% return of surveys.

The hypothesis taken into consideration for this research project was the effect of TQM on employee morale which could affect different populations in separate, or unique ways.

- [1] H_0 : The null hypothesis—there was no relationship between the application of PITs for TQM through the realization of the Enhancement Team (ET) and higher morale for employees in Plant Procedures Group (PPG) who had been employed in the industry 8 years or more.

H_A : The alternate hypothesis—there was a relationship between the application of the PITs for TQM through the realization of ET and higher morale for employees in PPG who had been employed 8 years or more.

- [2] H_0 : The null hypothesis—there was no relationship between the application of the PITs for TQM through the realization of ET and higher morale for employees in PPG who had been employed less than 8 years.

H_A : The alternate hypothesis—there was a relationship between the application of the PITs for TQM through the realization of ET and higher morale for employees in PPG who had been employed less than 8 years.

- [3] H_0 : The null hypothesis—there was no relationship between the application of the PITs for TQM through the realization of ET and higher morale for employees in PPG who had participated/served on ET.

H_A: The alternate hypothesis—there was a relationship between the application of the PITs for TQM through the realization of ET and higher morale for employees in PPG who had participated/served on ET.

- [4] H_O: The null hypothesis—there was no relationship between the application of the PITs for TQM through the realization of ET and higher morale for employees in PPG who had not participated/served on ET.

H_A: The alternate hypothesis—there was a relationship between the application of the PITs for TQM through the realization of ET and higher morale for employees in PPG who had not participated/served on ET.

Scope and Limitations.

The surveys were handed to each manager, who in turn handed a survey to each employee at staff meeting. Groups included Technical Writing, Assurance Procedures, Technical Operations Control, Environmental and Waste Management Procedures, Procedure Processing and Control, and Management Control Procedures and Plans, all under the PPG Director.

The design of the survey was to obtain information which would reflect whether or not employees were of the opinion morale had improved due to the efforts of the PIT teams which were usually assigned from the ET meetings. Also, weekly minutes containing information about how much better the ET was doing, and anything else relating to morale were collected from the ET Update.

Limitations which could have affected the outcome of the survey were:

- [1] Due to the intense desire of the Director to obtain the surveys from all employees, some employees could feel coerced into completing the surveys and complete them incorrectly, intentionally.
- [2] Refusal of some employees to complete the survey due to job insecurity and not knowing if the supervisor would have a way to find out which employee wrote what comment.
- [3] Too many responses in the "neutral zone" which would not reflect a response that could be skewed correctly.
- [4] The sample population perhaps too limited in perspective.
- [5] Having too many questions, and having people wanting to answer a few, or rushing through the questions to complete the survey faster, and not giving correct attention to answer the question better.

General Procedures.

The primary approach for collecting the data through the means of a detailed survey questionnaire was the baseline established in the problem statement—morale was notably low at Rocky Flats, and in Plant Procedures. The surveys, along with minutes of the Enhancement Team ET Update, acted as a guide in compiling the information. There were approximately 125 employees surveyed in Plant Procedures which was an approximate 2% sample of all employees at EG&G, Rocky Flats.

Since the only people surveyed were employees of PPG, within EG&G, Rocky Flats, Golden, Colorado, it should also be safe to realize the results would only be applicable to employees of PPG, within EG&G, Rocky Flats.

Information was consolidated and compiled using a statistical formula of a Chi (X^2) test. Information from the employees reflected whether or not the guidelines set in motion by the Enhancement Team was working in raising morale, in order to document or refute the hypotheses.

Summary.

The information obtained and the survey results were an attempt to gain understanding of what programs might assist in employee morale in a plant where morale is as low as it was at Rocky Flats. The results did reflect whether or not the Enhancement Team in Plant Procedures actually raised the morale of employees of the Plant Procedures Division at EG&G, Rocky Flats. Based on findings of the study, recommendations have been given as to why Plant Procedures Division or EG&G, Rocky Flats should or should not continue ET or the PITs of the TQM program, based on whether or not employees feel the program is lifting morale. By looking into how TQM worked in other organizations, businesses, agencies, companies, and government offices, it could be determined whether or not the implementation of TQM at Rocky Flats was a good concept in the first place. Had it been a worthwhile endeavor in other companies? What did they achieve with TQM? Was their employee morale lifted? The other groups needed to be challenged to see what had been accomplished.

CHAPTER 1 NOTES

¹ Webster's Ninth New Collegiate Dictionary, "Morale."

² David P. Crowell, EG&G, Inc., and John R. Grant, EG&G Energy Measurements, Inc., EG&G. INC., 45 William Street, Wellesley, Massachusetts 02181-4078, letter to the EG&G Rocky Flats Management Team, March 30, 1993, Subject: EG&G Rocky Flats Process Improvement Review.

³ EG&G Rocky Flats TQM Support Services, EG&G Rocky Flats - Total Quality Management - An Overview, 8/21/91.

⁴ EG&G Rocky Flats TQM Support Services, DESCRIBING PROCESS FLOWS—Understanding and Improving Work Processes, Additional Resources, October 1992.

⁵ James A. F. Stoner and R. Edward Freeman, Prentice Hall, Englewood Cliffs, NJ 07632, Fifth Edition, Glossary, page 702, Management.

⁶ Paul Hersey and Kenneth H. Blanchard, Prentice Hall, Englewood Cliffs, NJ 07632, copyright 1993 by Prentice-Hall, Inc., Organizational Behavior, "Chapter 14, Group Dynamics: Helping and Hindering Roles in Groups."

⁷ EG&G Rocky Flats, TQM - An Overview.

⁸ Stoner and Freeman, page 704.

CHAPTER 2

Literature Review

Introduction.

Total Quality Management (TQM), proven to work in other companies as a fixer of broken systems, was implemented in 1991 at EG&G, Rocky Flats.

What then, denotes TQM? TQM has an operating philosophy and strategy that enables an organization to achieve total customer satisfaction through the continuous improvement of all work systems and processes. TQM has become the employee taking responsibility by caring about the finished product.¹

Broken down individually, the three words, Total - Quality - Management, according to Webster, means: ²

Total: Comprising or constituting a whole; involving a complete and unified effort especially to achieve a desired effect.

Quality: A peculiar and essential character; an inherent feature; degree of excellence; superiority in kind; a distinguishing attribute; an acquired skill.

Management: The act or art of managing the conducting of or supervising of something; judicious use of means to accomplish an end; capacity for managing: executive skill; the collective body of those who manage or direct an enterprise.

What is quality? Quoting Crosby, "a conformance to requirements"; quoting Juran, "fitness for use", quoting Deming, "That which delights the customer", and quoting the Department of Energy, "The Degree to which an item or Process Meets or Exceeds the User's Requirements and Expectations."³

TQM at Rocky Flats has attempted to ensure utilization of resources:

- To examine competing knowledge bases.
- To explore alternative hypotheses.
- To be willing to present your point in a professional NOT personal manner.
- To emphasize knowledge, logical presentation, and explanation.
- To avoid a vote to resolve differences.
- To avoid "I win, you lose" dominance games.
- To encourage even those who are reluctant to express their opinions.⁴

TQM principles at EG&G Rocky Flats has stressed customer satisfaction as shown in Figure 2-1

Figure 2-1

TQM PRINCIPLES AT EG&G ROCKY FLATS PLANT⁵

The empowerment of the employees increases morale, as the employees take ownership and responsibility, and assist with the decision making, as the employees care more about the finished product.⁶

The empowerment of the employees increases morale, as the employees take ownership and responsibility, and assist with the decision making, as the employees care more about the finished product.⁶

The teamwork includes momentum of many hands, hearts, and heads. It gives a visible model for others to follow. Employees working together for a common goal boosts employee self esteem. It is management and employees working smarter, not harder, and the changes do not occur overnight.⁷

The mission of TQM at Rocky Flats has been to support and coordinate the successful implementation of process improvement (PI) by providing:

- Education required for making the changes that PI involves.
- Consultation/Facilitation helps teams and individuals improve processes.
- Communication services to coordinate team activities and to PI information to the general plant population.
- Tracking and Reporting data related to cost/product improvements.
- Planning for steering committee, and other similar committees.⁸

TQM principles and methods at Rocky Flats include:

- A set of fundamental principles as customer satisfaction, customer improvement, empowerment of employees, teamwork, scientific approach, and leadership

- A set of tool and techniques includes analytical and statistical, interpersonal and group process, and management and planning⁹

The goal of the PI Teams as part of TQM at Rocky Flats as shown on the training vugraph was to:

**"PROCESS IMPROVEMENT through
PROCESS IMPROVEMENT TEAMS (PITs)**

EG&G Rocky Flats is committed to the continuous improvement of our work process by empowering our employees in a never-ending quest to satisfy internal and external customer expectations. The success of this endeavor requires the full participation of all employees. EG&G further recognizes that to meet the challenges of the future, education as well as significant changes and growth are needed. The benefits of these efforts will be a safe, rewarding work environment where quality products and services are the standard, and pride of work is the norm. The time to begin is now."¹⁰

Theoretical Framework.

In most instances of journals and literature where information was extracted, money and the time saved by the company were the primary listed accomplishments of TQM. However, other information was understood indirectly from the comments and feelings of higher self-worth and higher morale from the employees. The employees morale improved because of being asked to help and actually assist the managers and CEOs in accomplishing goals for everyone connected with the company. It was not just the "higher ups" who were allowed to net-work or trouble-shoot the problems, and this in turn had the employees having a better feeling of their self-esteem by knowing they helped with the outcome.

Review of Literature

The Beginning of Total Quality Management (TQM)

W. Edwards Deming was credited with the original concept of TQM with assistance from J. M. Juran.

Deming was born in 1900 in Sioux City, Iowa, and graduated from the University of Colorado in 1921. Deming went to Yale in 1925 for his PhD, and graduated in 1927 with a degree in Math and Physics.¹¹

After World War II, the prevailing policy in product assembling in the United States shifted from a quality product to a 'get it out as fast as you could' mass production product. Deming's and Juran's ideas were not accepted at that time in the United States, so they became American advisers to Japan, beginning the importance of quality messages to the Japanese.

Deming stayed in Japan from 1947 to 1950 and helped alter the economy there drastically. By the 1970s the quality of products in mass quantities shifted, to Japan becoming the best in the world.¹²

About that time NBC did a White Paper which emphasized the idea that if Japan could, why couldn't the United States do it too? The last half hour of program documented Demings' methods in quality. U. S. companies finally listened, as to stay in business improvement was needed. Deming's ideas were competent, dependable, significant, essential, and vital to stay alive.¹³

TQM in the New, Quality First, World

The term quality has been explained differently, not only in different areas, but in different languages, companies, and individuals. "One individual, Juran, who had been a noted quality expert/guru since the early 1950s, gives the definition of quality as 'fitness for use', which does not describe what is wanted," says Ben Pitman, a consultant for Information Services organizations.¹⁴

Gus Welty explains that quality performance is so very important and vital to TTX Railroad Company not just for the vendors, but also for its own team.¹⁵

Phillip Crosby says quality is 'conformance to requirements'. The first immediate question then comes up as to whose requirements are these?

Pitman's answer is "with the user's and your own." Pitman, who specializes in solving people problems, states quality is "in the eyes of the beholder." The first major step or hurdle of any program is to get an answer which everyone agrees to within the organization.¹⁶

Industry has determined poor quality products cost the company some 20% to 50% in operating expenses. It becomes imperative to do the job right the first time so there won't need to be rework of any process in the system. Fixes at times cost 100 times more than doing it correctly the first time.

Pitman stresses two items to measure: (1) what is probably being delivered and (2) what the customer expects to be delivered. The only way to manage quality is through a total effort of the entire organization. View quality as everyone's responsibility. View quality as a continuing process, not just a one-time one-shot program. This could include employees' rising morale, as the employees would feel a bigger part of the overall picture, since advice from them was being considered.¹⁷

Quality must not become just another fad—it must be an on-going program. Pitman states that " Total Quality Management requires changes in how leaders lead, plus what is communicated to the other employees, what the rewards are, how decisions are made, and how the products are developed."¹⁸

Gus Welty, Senior Editor of the Railway Age, states one set of numbers in particular leaps off the pages:

"The TTX fleet represents only about 8% of all U.S. freight cars—but it generates 24% of total freight car miles. That is equipment utilization of the most intense kind—high mileage that, especially for internodal and autorack cars, tends to be run at high operating speeds."¹⁹

The system had problems, but took what TTX President/CEO, Raymond C. Burton, Jr., explains as a "great leap of faith", and adopted TQM in 1991. A new focus on the entire system was done. TTX accumulated a billion dollars worth of freight cars the last 5 years and intends to spend the same the next 4 years.

Burton stresses working with the vendors in a partner-ship type of business. Public recognition is given to quality suppliers. Working together, as a team, most positively improves the product, and indirectly improves relationships.

Excellent Supplier Awards are given vendors who "pass" the test. TTX used 150 pointed questions from quality and equipment to the performance of field service personnel. Fleet personnel telephoned and interviewed ~350 people who dealt directly with TTX, owner-railroads, and shippers.

When the article was written, 51% of TTXs revenues were derived from the internodal railcar fleet. TTX received 30% of revenue from autorack cars, and the autorack fleet numbers about 32,000 cars. The revenue that remains, accounted for by Railbox and Railgon equipment and by the TTX fleet, came to about 15,800 flat cars.

Robert J. Proske, CFO of Craftex Mills, Inc., in Blue Bell, Pennsylvania was the team facilitator to incorporate TQM at Craftex Mills, Inc. After one study, team members discovered 42 different kinds of flaws that could occur. Each flaw was categorized, built into a reference library for future use, occurrences of these flaws quantified by frequent and matched to the rework time required.²⁰

A follow-up team was assigned to determine the root cause of the flaw and the new team leader, who had served on the original team, received support from almost the entire plant, with production going on schedule. This support could also be interpreted as a team effort actually gaining momentum in team morale. The cause was a machine maintenance problem and that discovery initiated a half-million dollar capital improvement project, with a return on investment exceeding 100 percent. Craftex is totally convinced TQM works, as long as it is implemented and followed up correctly.

TQM was dissected by balancing three concepts at the same time—teamwork, data-based thinking, and customer focus. Craftex visited customers'

places of business and assistance was possible using TQM and saving money through cutting down on materials and time.

One big problem businesses have is that they get the computer results too late to work on them. With TQM, workers take action before they produce and ship additional flawed products. With the devised control chart, the monitor was processed with little cost of time. Nine hours of setup time was saved, adding 5-1/2 percent capacity to the plant, by using TQM. Employers need to change their thinking to expand it to a broader sense.

Similar Systems

Similar systems to TQM have been used and abused through the years. Is TQM going to follow?

Two former systems with similar problems were quality circles and zero-defects. Implemented years ago, used for a few years, almost forgotten about by most, and never even heard of by people born after 1960, the commitment and comprehensiveness TQM demands are primary differences between old programs and modern day TQM.²¹

One developer, Zurich-American Insurance Group, has developed a means of improving customer service. The process is driving all business processes,

spreading into financial services with underwriting insurance claims. The immediate goal is to improve customer relations and service which will provide an advantage over competitors, increase productivity, and reduce costs, and will boost the insurer's bottom line. The company needed to become more adaptable and ready to change immediately. One of the unanticipated contributions of TQM, however, has been how motivated the employees have become, how morale has improved, and the fact that their annual turnover rate is presently 10% in comparison to 40%, less than 20 years ago.

Eventually, down the road, companies who do not fully implement TQM into their businesses will fail to solve these problems, and will fail in competing with other companies who have implemented TQM.

Mark Savory, National Director of Ernst and Young's Insurance Industry Consulting Services, thinks even though the original TQM programs have not worked in the past for the insurance industry, they will evolve into a tool by management which will allow competition in the marketplace. Also, Marian Freedman states companies willing to take risks will end up winners. Marian feels when TQM is done well, it appears to have no limits.

CEO Raymond Marlow of Marlow Industries, Dallas, Texas, states TQM is the most popular acronym since TGIF! TQM is an umbrella term for new quality programs which have spread through U.S. businesses in the past few years.²²

Essential ingredients of TQM programs are: 1) intense focus on customer satisfaction; 2) accurate measurement of every critical variable in business operations; 3) continuous improvement of products and services; and 4) new work relationships based on trust and teamwork (which boosts morale).

In 1991 the small business winner of the Malcolm Baldrige National Quality Award, Marlow Industries, based in Dallas, Texas, finally adopted TQM from pressure by customers. Experts have made up guidelines for small firms to follow who are just considering using TQM: 1) TQM must start from the top; 2) there are many roads to TQM; 3) empowerment does not mean abdication; 4) communication is critical; and 5) TQM can help in unforeseen ways.

TQM will not solve every problem small businesses have and may even invent new problems; however, it appears overall that TQM is going to be the way businesses need to go to keep up, or in this case, go ahead of the crowd.

The positive difference between TQM and former programs that failed is that linking processes to results is being accomplished. TQM pulls together excellent ideas under one tent which have never been so clearly linked before.

Marlowe states: "We have shown ourselves through the years to be much more adaptable than either European or Japanese business. Those countries have fairly rigid institutions, but we are very flexible. Combine the TQM discipline with our adaptability, and you can predict the results with certainty."

Lawrence Holpp of Quality Partners, a consulting firm, reflects the puzzling choices between TQM and Self-Directed Teams (SDT). Companies must go back to the middle ages—choose weapons and come out fighting! The war is against poor quality, low productivity, inadequate resource utilization, and high costs. The spoils are customer satisfaction, survival, and market share.²³

Holpp feels both TQM and SDT, are definitely hot ideas and both can produce impressive results. There is a critical difference between the two different approaches. TQM is an ongoing process of improvement, which will constantly need nurturing, forever down the road. He feels TQM is based on a gold standard, almost a religious transformation, as it requires a belief that something will work, even though there are doubts it will work.

Conversely, SDTs are considerably small, focusing on organizational units, which are carefully made to be accomplished as routine things employees do everyday, as clocking in and out, taking breaks, assigning work tasks, and checking outputs. The principal difference between SDTs and TQM is that a company cannot have SDTs without being over obsessed with quality; however, it can throw its entire resources into quality without committing to SDTs. He explains that the ideal situation would be using them both in harmony.

Some of the differences of TQM and SDT are shown in Figure 2-2, of common elements for both ideas.

ELEMENT	SELF-DIRECTED TEAMS	TOTAL QUALITY MANAGEMENT
JOB DESIGN/ STRUCTURE	It is essential to redesign the work prior implementation. The team must control own the <i>whole</i> job, including all work inputs and outputs.	The organizational structure generally becomes flatter on its own, but structure change is not a precondition to implementing TQM.
DECISION MAKING	Teams often participate in all decisions that affect them, including the once-taboo areas of pay, performance, policies and people issues.	The degree of empowerment varies with the organization, but is generally tied to specific problem-solving projects.
FLEXIBILITY	SDTs often have complete responsibility for the actions of their business units including profitability and growth. As a result, they also have significant freedom to design their work process and may have input into products.	Teams must seek specific approval or managemnt sponsorship to pursue projects beyond their basic charter.
SUPERVISION	Traditional supervisors may be completely absent. Instead leadership may rotate or be divided up according to preference and talent.	Traditional roles may remain, though responsibilities often change. Supervisors become coordinators, team leaders and facilitators.
LABOR RELATIONS	A complete rethinking of job descriptions and traditional labor contracts is required. SDTs demand a true, long-term labor-management partnership.	While labor and management must collabarate, few or no contract changes ar required.
QUALITY	Quality is one of several team goals. In managing a whole piece of the business, the team may get involved with planning, scheduling, cost, product development and even sales and distribution.	Quality is first. But it is interpreted broadly to include traditional quallity assurance as well as anything else that contributes to service and customer satisfaction.
CUSTOMERS	SDTs make their primary focus the <i>external</i> customer. As a business unit with some degree of economic flexibility, teams learn to work with internal customers as <i>partners</i> in meeting external cudstomers' needs.	External and <i>internal</i> customers are a continuous, dynamic focus. This sometimes creates system imbalances when the needs of customers conflict.
TRAINING	Training is continuous and self-directed. Leaders and team members become subject-matter experts and teahers themselves. Many team members take on multiple functions and are cross-training in al team jobs.	While lifelong learning is emphasized, it often comes down to a few training programs on teamwork and problem-solving skills rather than a full range of business-relevant subjects like budgeting, finance and operations.

FIGURE 2-2

Differences of TQM and SDT

Source: Lawrence Holpp, Making Choices. Self-Directed Teams or Total Quality Management?" Training, May 1992, Page 72.

Holpp recommends 10 ways to create harmony between teams and quality as follows:

1. Start with clear, business and ethical reasons for engaging in TQM or SDT.
2. Develop a mission statement that brings your commitment to life.
3. Develop and communicate an implementation plan.
4. Provide opportunities for input and feedback.
5. Engineer early wins.
6. Train and deploy salespeople.
7. Begin with widespread education.
8. Expand the program.
9. Celebrate successes.
10. Trust the process.

Do not tamper with the process when feelings might not be working.²⁵

President of Innovative Management Technologies, Inc., and creator of Total Performance Management, Robin L. Lawton has a strategic process to develop leadership in quality, innovation, and speed. Lawton assesses three steps to customer satisfaction: 1) create awareness about the new way to think about quality and to run the business; 2) carefully select a few products on which to focus the change effort; and 3) form teams.²⁶

Innovative Management Technology employees broke into teams. The focus of Team-1 was on the first retirement check retirees received. Team-2 made an effort to apply advanced methods to understanding customer needs. Both teams discovered that 80% cycle time reduction was possible.

One of the biggest changes the company noted was that both teams threw out the old products and either redesigned or created innovative new products. The company, by focusing on the customers, began its quality initiative in the human resources department, and now plans to have it implemented throughout the company by the end of 1992.

Figure 2-3 shows how the culture is created.

TQM in the Government

James J. Kline, an editor for Government Finance Review, explained managements which are quality-oriented are called total quality control, total quality process, quality improvement process, and total quality, but the main one used was TQM. TQM stresses meeting customer expectations and requirements not only the first time, but every time you do business with a customer.²⁸

How To Create a Customer-Centered Culture²⁷

Figure 2-3

Kline reflected the idea TQM was implemented through the process by:

1) identifying and correcting problems by using information from data, by not using peoples emotions or opinions; 2) empowering employees by using teams to learn of and solve problems; and 3) improving the company's ability to meet or perhaps even exceed the demands of customers. He estimates a good 85% of productivity and quality of improvements in any company could result from improving the work systems and processes.

The acronym PDCA represents the administrative stages which link quality tools with improvement recommendations and management implementation.

Table I shows how the PDCA states are linked to the quality tools.²⁹

Becoming involved with the Northern Colorado Center for Quality Excellence in 1987 was how TQM was begun in Fort Collins city government. Several leading companies in Fort Collins provide TQM training to managers of Colorado businesses. In 1988 the city hired a statistical process control trainer, and later hired someone from a power and light consulting branch.

Table 1
ADMINISTRATIVE STAGES OF TQM AND QUALITY MANAGEMENT TOOLS

Quality Improvement Process	Brainstorm Technique	Pareto Chart	Flow Chart	Multi-Vote Technique	Fishbone Diagram	Scatter Chart	Histogram	Run Chart	Control Chart
1. Identify your product or service.	*		PLAN						
2. Identify customers, customer requirements, suppliers and supplier specifications.			*	*					
3. Identify your current work process.			*						
4. Identify improvement opportunities.		*	*	*		*	*	*	*
5. Establish and verify cause and effect.	*	*			*	*	*	*	*
6. Revise the work process and establish measurements.	*		*	*					
7. Conduct a small scale test of the revised process.			DO						
8. Evaluate test results.		*	CHECK						
9. Standardize and implement the improved process.		*	*			*	*	*	*
10. Measure and analyze customer satisfaction based on feedback.	*	*	*		*				
11. Celebrate the quality story			ACT						

Kline states the city manager's comments on the problems encountered are comprehensive and worth noting in total.

"There are several problems we have encountered in our effort to implement this. Some are common to all organizations, such as management and employee buy-in, transitional inertia, and finding time and money to train and implement. Others are common to service organizations, such as applying SPC tools to services that don't lend themselves to those tools....Unlike the public sector however, the private sector also can gain from wisely spending money to achieve higher customer satisfaction, higher sales, greater profits and market share. For us, spending more on customer satisfaction may mean happier customers, but no necessarily more revenue." 31

Table 2 shows the structure used in the city of Fort Collins, Colorado, which linked the teams and activities of the teams with management.³⁰

TABLE 2
FORT COLLINS, COLORADO
LEAD TEAM ORGANIZATIONAL CHART

Different teams include a street team looking at better safety equipment; a forestry team being concerned about the mortality rate of newly planted seedling trees; and a waste water team trying to match more closely the information needs of internal customers with the lab tests it conducts.

The Quality Council, chaired by the city manager, includes the deputy city manager, service directors, and quality improvement coordinator. It provides coordination and organizational direction to the quality improvement activities. The service area and departmental lead teams are lead by a service director, department, or division head. The policy and guidelines within the area and handling of overall logistics, communications, and operational matters for these teams are accomplished by these department heads.

The division or section heads lead the Division teams and support the quality improvement efforts of the teams at operational level. Operational teams are sometimes structured to include members from a one functional area within the organization. They select what improvement or task they want to work on. Members choose their own teams, and sometimes serve on more than one team. Those members who serve on more than one team are assigned to the task team because of their background and experience.

The U. S. Coast Guard Yard in Curtis Bay, Maryland almost had to shut down 90 years after it was founded in 1899. TQM was credited with turning the situation completely around. The Department of Energy was complemented on how well TQM had been successfully implemented. They cut the plan and set the goals into year sections. The goal is to align near-term, which is 1-5 yrs, mid-term which is 5-10 yrs, and long-term, which is 15-20 yrs or longer, objectives.

The plan will closely parallel the original plan implemented at the Coast Guard Yard, enabling the Yard to be part of the larger over-all picture.³²

Three critical elements make up the strategic plan as shown in Figure 2-4.³³

Critical Elements of a Strategic Plan

Figure 2-4

Figure 2-5 shows the mission statement from the Coast Guard Yard.³⁵

Financial Management Service
Mission, Goals, and Vision Statement

FMS Mission

The mission of the Financial Management Service is to improve the quality of government financial management. Our commitment and our responsibility is to help our government customers achieve success. We do this by linking program and financial management objectives, and by providing financial services, information, advice, and assistance to our customers. We serve taxpayers, the Treasury Department, federal program agencies, and government policy makers.

Figure 2-5

Strategic planning is a well-conceived plan that helps assure the appropriate goals and objectives can be dreamed of and can also be achieved.

Eight key steps to implement strategic planning are:

- Step 1. Plan to Plan.
- Step 2. Formulate a Vision and Identify the Mission, Goals, and Objectives.
- Step 3. Analyze the Mission.
- Step 4. Assess the Environment.
- Step 5. Determine the Needed Changes in Direction.
- Step 6. Identify the Key Strategic Issues.
- Step 7. Design the Implementation Plan.
- Step 8. Implement the Plan.³⁴

Figure 2-6 shows a comparison of organizations of the past and future.³⁶

Organizations of the Past and Future	
OLD	NEW
Hierarchical	Flatter and Smaller
Centralized Planning and Decision Making	Centralized Planning Process and Decentralized Decision Making
	Strategic Thinking at All Levels
Separate Data Systems	Integrated Data Systems
Internal Focus	Strong Customer Orientation
Little Interest in Retooling Workers	Continuous Retraining
People as Variable Cost	Job Security for Core Staff
Quality Control Through Inspection	Built-in Quality Through Process Control

Figure 2-6

The government must remember the general public is the customer and must be the ultimate determiner of quality.

Background for Demings 14 Points of Management

Demings quality plan for management, created statistically process control and better service. TQM gave higher quality with better service, less rework, and more productive use of time and material with more reliable products, processes, and services which increases customer satisfaction and loyalty.³⁷

Deming found a chain reaction of quality that included a lot of folklore. One myth is you couldn't have quality and production. Deming stressed in meetings with teams of companies throughout the United States that it is time to get rid of that idea. He questioned executives and employees alike as to why it is that productivity increased as quality is improved—yes, less re-work!

Improvement rises uniformity of output and reduces rework and mistakes. Deming recommended the flowchart, Figure 2-7 for every business. The cycle continues going around and never ends. Once a system is in statistical control it can only be improved through management action.

Blaming workers for problems in the system solves nothing. There are businesses where the employee has never been told what is allowable and what is not allowable. Management needs to learn to recognize and solve problems in the system. Engineers need to learn to use statistical methods. Everyone must learn to focus on a never-ending and on-going improvement of

the production system. Deming stated that only then would the chain reaction of quality begin.

Figure 2-7

Most businesses hold workers responsible instead of admitting the responsibility of a problem at the management level. Management should be responsible for the system, to find and correct the cause of defects.

Statistical tools are critical for overseeing and improving the system. Most problems are system faults. The managers must get with the people and find out what the problem is and find the source of the problem, as once the problem is correctly placed, the answer is easier to find.

Blaming employees for something wrong with the system is not good business, and buying from the lowest bidder is not always the best policy.

Statistical tools are also critical to finding the sources of trouble. Common causes included:

- poor design of product or poor design of service
- inadequate or improper training
- ineffective supervision
- incoming materials not correct for job
- procedures incorrect for requirements
- machines not in order
- uncomfortable working conditions
- the constant shift on the part of management from using quality and then switching to quantity, and then changing back again.³⁸

W. Edwards Demings' quality improvement plan provides management with 14 points for achieving goals. Deming suggests to improve quality and quantity, everyone needs to do their best. He related the response he mostly gets from company bosses is "but everyone is already doing his best!" Deming maintained that the best efforts to be effective required guidance.³⁹

Demings 14 points for Management

1. Develop a constance of purpose for the betterment of service and product.
Create and publish a statement of the objectives of the organization.
Initiate both short term and long term applications. Commit resources to:
innovation, research, training and improvement.
2. Accept a new philosophy in all areas—to include top management and all employees. Know that mistakes and defects are not a way of life. Reliable service reduces cost. Delays and mistakes raise costs. Payment for waste is 10-40% of a typical American manufacturer cost.
3. Halt dependence on mass inspection. Inspection is for improvement of process and reduction of cost but raises the cost and does not improve quality. Good or bad quality is built into products and services. High quality is achieved through robust design process control and total quality management. Defects are not free.

4. Stop awarding business to the lowest bidder on the basis of price alone.

"There is no such thing as price without knowledge of quality" ("buyers cannot judge quality - they can judge productivity.") Purchasing managers must learn to use statistical methods. Purchase products and services based on lowest total cost.

$$\begin{array}{r} \text{Purchase price} \\ + \text{ cost to correct problems } \\ = \text{ total cost} \end{array}$$

Do business only with vendors who can furnish statistical evidence of quality. Start by finding one qualified vendor. Sometimes there is only one available.

5. Improve constantly and forever the system of production and service.
6. Institute training on the job whenever new job or new equipment statistical methods reveal when training is needed and when it is finished.
7. Improve supervision by asking what's wrong instead of who's wrong.
Effective supervision involves more than bringing problems to employees attention. Pointing out problems will not prevent further occurrences. Improve supervision—teach and institute leadership. A supervisor must learn to use statistical tools to improve the system.

8. Drive out fear - create trust - create a climate for innovation.

CONTINUAL IMPROVEMENT

FIGURE 2-8

Ways to ascertain security are:

- To be without concern or worry
- To ask questions about the job
- To talk with people to offer suggestions and criticisms
- To report materials not usable
- To report machines out of order.

Fear of not meeting exact quotas prevents improvement and a climate of fear prevents discovery and correction of problems in the system.

9. Break down barriers between departments. Work together for the same end goal by pooling expert knowledge. Only top management can effectively bring people in the different departments together.
10. Eliminate slogans for the work force; i.e., as in posting goals for the workers without a plan of action. Guidelines to achieve goals must be provided by management. How else can workers learn? The answer has to start at the top.
11. Eliminate quotas for production. Learn and institute methods for improvement instead, as quotas do not help workers achieve management goals. Quotas can be a direct cause of lowered quality of product and service.
12. Remove barriers that rob people of pride of workmanship.

Barriers to pride include:

defective materials	poor supervision
inadequate training	posters and slogans
unsafe working conditions	numerical quotas
being treated as a commodity (layoffs)	
delivering poor quality products or services	

13. Encourage education and self improvement, as everyone must achieve statistical literacy. Teach statistical theory and practical methods to

management personnel, and to hourly workers and non-management personnel. Employee education and self improvement enforces the organizations commitment to long term survival.

14. Take action and allow adequate time to accomplish the transformation.

For an achievement, ask "what are you doing?" Changes are visible in 3 years, and in 5 years the company should show an improvement. There are no shortcuts. Don't be fooled by quick success or brilliant advances. ⁴¹

Know that businesses do have a chance to survive.

Uses of Control Charts:

Studies by Dr. Walter Shuhart of Bell Labs show control charts are the key element in implementing the same variation of processed data.⁴²

Common causes are variation caused by the system, and special causes are variation caused by specific events.

Two uses of control charts are to:

- judge past performance; i.e., is the process in statistical control
 - produce a lot of products in a state of statistical control

- during production establish and maintain statistical control
 - give off statistical signals of the existence or detection of a special case, so action can be taken at once.

STEPS IN BUILDING A CONTROL CHART 44

Collect data:	Number of <u>Employee</u>	Number of <u>Defectives</u>	
	1	15	
	2	10	
	3	15	
	4	9	
	5	20	
	6	16	
	7	14	
	8	19	
	9	23	
	10	25	
	11	<u>15</u>	
		181	To get the average:

$$\bar{X} = \frac{\text{total defectives}}{\text{number of employees}} = \frac{181}{11}$$

$$\bar{X} = 16.45$$

$$\bar{X} = \text{Upper Control Limit}$$

$$UCL = \bar{X} + 3 \bar{\bar{X}} = 28.6$$

$$LCL = \bar{X} - 3 \bar{\bar{X}} = 4.3$$

X-bar and 'R' Charts are two types of control charts, and both charts can be taken into the future. The range chart stays within the control limits or range.

CONTROL CHART A

Figure 2-9

CONTROL CHART B

Figure 2-10

Control charts help to maintain a state of statistical control.⁴³

If all the points fall within the UCL and LCL, the process is in a state of statistical control.

CONTROL CHART C

Figure 2-11

Take the data and plot the points at specified intervals of time on the chart as immediately as possible. If the point goes out of the chart, it is a signal of a special cause, so take action right away.

The chart is plain so the manager can see exactly when it went out of control—15 minutes ago—5 minutes ago, etc. The control charts help achieve timely removal of special causes of trouble.

The future control limits are not put in by judgement and can not be faked. The control limits are not specification limits and can predict what the process will continue to do if left alone. What if patterns include the following possible reasons for action:

- one point out of control
- a run or trend up or down
- a series of seven points above or below the average.

The time it takes to plot a point is insignificant in comparison to the benefits of what the manager will benefit from it, and once managers start using the charts, they are very happy with them.

It is not difficult to learn how to plot points on a control chart, and a limited amount of charts are needed in most places.

Find a problem—get data to throw light on it and use whatever means possible to solve the problem. You might have to redo the chart later, or re-evaluate it, if it goes out of control. Control charts reduce over-adjustment (each time a point goes up or down) and under-adjustment (doing nothing), and minimizes the net economic loss from both mistakes.

Control charts show what the process is, not what it should be. Only management can change the system.

New Principles of Training and Supervision

A supervisors job is to help people do a better job with less effort. Deming questions how can a worker learn how to improve his/her work if not told a mistake has been made? The manager must communicate to workers that mistakes will not be tolerated; however, workers should not be told about defectives and mistakes, unless there's a special cause on the chart. The control charts enable workers to detect and correct special causes.⁴⁷

No one should be penalized or blamed for a performance they cannot govern, and violation only leads to lower production. Workers are not responsible for defectives produced by the system, management is. Control charts enable management to detect and correct common causes.

The solution then is to move the worker to a different area with better training. Proper training is critical to producing high quality output. If training can not be carried out correctly, workers will learn the wrong procedures and stick with them. Deming warns there is only once chance to parachute to the right spot. Statistical methods are a key part of any training program, as it determines when training is needed and when it is no longer useful.

Achieving statistical control improves quality of output; helps people develop their abilities; and helps workers contribute to improving the system

The importance of training is to train the right people for the right job. Improper training is costly and reduces workers' morale. Ranking workers also reduces morale and is ineffective, as someone is either at the top or the bottom. By helping those out of line, managers can focus on helping those who need improving. Workers are a part of the system and management is responsible for improving the system. Deming reminds managers "how can employees produce good quality within a bad system?" Proper training raises morale.

Successes and Obstacles

Obstacles to success include a lack of loyalty of purpose. If management has no plans, there is no guarantee the company will stay in business. The business can always improve by making a better product or giving better

service. Businesses should emphasize on short term profits. Workers are fed by fear of an unfriendly takeover by another owner buying out the company.⁴⁹

Deming supports evaluation of performance, annual review, merit rating, annual appraisal, and management by objectives. He lists the many evils of merit ratings, as follows:⁵⁰

- builds fear
- destroys long-term planning
- stifles ideas
- nourishes rivalry and politics
- destroys morale
- demolishes teamwork
- nourishes short-term performance
- leaves people bitter, depressed, or down, once they get their rating
- 98% were rated inferior even though the workers were not inferior
- encourages mobility of management

Obstacles to Success also include: ⁵¹

- to work on breaking down barriers between departments
- to search for examples
- the presumption that quality control methods will not work for small companies
- lack of teaching in schools of business
- Use of acceptance tables for testing of incoming products.
- delegation of quality problems to the "quality control department"
- the supposition that "our problems lie in our work force"

There is no need for inspection except for safety or economic reasons.

Workers are delivering the mistakes and defects caused by the system. It is impossible to inspect the quality into the product, as there is no way to sort the good from the bad. It is better to improve the process—management.

In some areas businesses play games with figures. Unfortunately accounting tricks don't make the pie bigger, they just take from other pies!

More obstacles of success include:⁵¹

- the mobility of management and the mobility of labor
- half of the employees learn a job and then high turnover
- running organizations on visible figures alone
- loss caused by purchasing from the lowest bidder
 - businesses need to have more than one vendor
- gain in business resulting from happy customers, as "a happy customer brings in 8 more"
- loss in business due to unhappy customers (an "unhappy customer loses 15 customers")-then the company has no customers or figures
- gains from improvement of performance of the work that follows
- loss resulting from the annual rating
- idea that help can only come from someone who understands the business.

Quality and Productivity in Service Organizations

○ ○ ○

SERVICE

○

MANUFACTURING

All employees need quality control. Three of four people are employed in service organizations, as restaurants, schools, mail centers, banks, insurance agencies, police departments, etc. The fourth person is in manufacturing.⁵²

Deming recommended dividing the responsibility, because then no one is responsible. If a mistake is made, send it back for correction, then the same mistake is not made again. The longer a mistake goes without correction, the more expensive it is to correct it.

Quality of service should always be measured by the customers opinion. Service providers need to improve quality, lower costs, productivity, improvement of capacity, and customer satisfaction. ⁵³

Stop awarding business on the basis of the price alone. The loss of future business is immeasurable. Begin awarding a business on the basis of:

$$\begin{array}{rcl}
 & \text{Purchase price} & \\
 + & \text{cost to correct problems} & \\
 = & \text{total cost} &
 \end{array}$$

End dependence on mass inspection. Improve forms and procedures to improve quality, and eliminate unnecessary record keeping. The only way to

reduce cost and improve quality is to improve the process. Improve supervision by teaching and instituting leadership. Involve them—the employees—in improving the system. This can only improve self-esteem and build morale. Use tools to improve the system—to map out the problem.

Two systems of quality are 1) quality of design—carried out simply for getting it alright and 2) quality of performance—if they know where the fault lies. The differences between service and manufacturing organizations is service organizations must implement the 14 points to improve quality, to keep existing customers, and to gain new ones.

Quality and the Consumer

The customer is the only judge the business should care about. The triangle of interaction: 54

Figure 2-12

Deming says no one can outguess the future loss of business from an unhappy customer. The quality characteristics that displease the customer cannot be determined until it is usually too late. Oliver Beckwith in 1947 at an American Society of Testing Materials said "Dissatisfied customers do not complain, they switch." And Robert Peach with Sears and Roebuck said "The goods come back, but the customers don't." ⁵⁵

CONSUMER RESEARCH

Figure 2-13

The process of communication the old way had three steps: ⁵⁶

- 1 - design
- 2 - make all were independent of each other
- 3 - sell

The new way adds:

- 4 - test and the steps are no longer independent

THE DEMING CIRCLE: 59

DESIGN: Includes production and marketing.

MAKE: Do control chart to keep cost low and consistent

SELL: Selling your finest quality product to the customer

TEST: Do the consumer research

Deming states employee comments made after the system is in place are:

"How much pleasanter it is to work her now than it was 2 years ago."

"We're happier now."

"We understand better what the job is."

"It's obvious the management is trying to help us to do the job."

The employees have had a chance to learn. Managers can not expect what was right yesterday to be right today. There will end up being more jobs - not fewer. Supervision is at last helping the people to do a better job. This is the aim of quality control—to improve quality and productivity and remain in a competitive position.

Michael Crichton of the Rising Sun explains that "The Japanese have a saying: fix the problem, not the blame. In American organizations, its all about who #%\$@! up. Whose head will roll. In Japanese organizations, its about what's #%\$@! up, and how to fix it. Nobody gets blamed. Their way is better."⁶⁰

Can TQM Be Useful in the Public Sector?

One last question to be addressed is whether or not TQM can be useful in public sector organizations. James E. Swiss, associate professor of political science/public administrator at North Carolina State University, feels 'orthodox TQM' does not work well in government agencies. He feels the new 'reform TQM' approach is adoptable and can work if properly monitored, as long as it is always in the process of being improved.⁶¹

The system was originally resisted by many workers. There was a laid-back feeling that once the system was up and running, it didn't need nurturing any longer, so would eventually die. For these reasons TQM must continually

improve on in order for high performance to continue. He states "TQM's continuous improvement principle, if internalized by workers and managers, may be its most valuable contribution. ... Worker participation, now often called empowerment, has been an important management axiom...TQM's quality circles represent a valuable concrete step toward increased participation."⁶² This can only mean increased morale in employees and managers.

Nobel prize winning physicist Murray Gill-Mann states:

"What a specialist does, typically, is to look at some narrow aspect of a very complicated situation, and then other specialists look at other narrow aspects, and so on, and then whoever it is who's supposed to make a decision, for example, has to synthesize all these narrow views somehow and try to understand how the whole thing works. It's no good."⁶³

Summary.

Based on this data, TQM has worked in other organizations, businesses, agencies, companies, and government offices. Because TQM has been a valuable endeavor in other areas, it can be a good concept for implementation at Rocky Flats. TQM was endorsed by former President Bush, "Reasserting our leadership will require a firm commitment to total quality management and the principle of continuous improvement Quality improvement principles apply ... to the public sector as well as private enterprise."⁶⁴

Many companies with workers being part of the plan did show a rise in employee morale. Perhaps there can be a similar happening at Rocky Flats.

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CHAPTER 3

Methodology

Introduction

Background in Chapter 1 gave information in determining if the morale could be improved at Rocky Flats. The review of literature in Chapter 2 presented the implementation of TQM at other places of industry as well as government organizations. The base found that TQM was working in those businesses and how TQM was operated. Chapter 3 gives a more detailed explanation of the instrument used to obtain data, and how data was applied.

Research Design.

The survey helped speculate which hypotheses were correct. The excerpts from minutes of the Enhancement Team showed the progress made from before the time the surveys were handed out and after they were analyzed.

Research Design Strategy.

Since the implementation of the Enhancement Team, minutes were kept and included everything discussed from the on-set, to the date of this study. A selected number of these minutes showed the amount of time the team spent researching different methods to reach one common goal—better working conditions and better management support for employees of Plant Procedures.

The survey questionnaire was the "road map", or instrument chosen, and was used primarily for data collection. There was a comparison of the answers between employees in the workforce 8 years or more, or less than 8 years, plus a comparison of employees who had served on the ET and those who had not served on the ET. There were two different types of research methods used. One included the survey/questionnaire of co-workers and supervisors, and second was observations in the guise of the ET minutes.

Population and Sample.

The subjects of the research study were employees of Plant Procedures Group. Approximately 120 employees were provided a questionnaire to be filled out and returned to the sender.

The questions were specifically chosen to gather the data for the testing of the hypotheses. They address the questions referred to in Chapter 1.

The first draft of the survey questionnaire was pre-tested by three co-workers and friends. This was accomplished to determine if the questionnaire was completely understood, to see if everyone would interpret the questions the same way, and for constructive criticism on whether the questions were concise, understandable, and useful. The recommendations turned back were taken into consideration for the next draft.

The second draft of the survey questionnaire was pretested with two male co-workers/friends to review for clarity, after which two other female co-workers/friends reviewed the questionnaire for content. Once again any accepted, recommended changes were incorporated into the third draft.

The third draft was reviewed by two managers, one a female, primarily proficient in grammar and format, and both familiar with the study and the goal to keep in mind. The last draft was reviewed by one supervisor, two former employees of the group, and two family members, for comprehension. The only difference in the survey questionnaires was the coding used, to ascertain the difference in the exempt and the non-exempt participants. Employees who choose to, could remain anonymous, which was explained in the cover letter.

At that point preparation was in progress to wrap up the questionnaire, do a last proof of the cover letter, sign the cover letter, run copies, and prepare envelopes to send the questionnaires to all employees in Plant Procedures. At this point was when the Director, who was the last supervisor to review the survey, requested a few questions be added to the surveys, they be finalized, and sent out within 2 days, completed, and received back within 5 days.

Upon completion of the study, a report was developed which outlined the total consensus overall opinion of the employees completing the questionnaire. Also included in the questionnaire were blank lines to encourage comments from the employees about different questions in the survey. The response to the opportunity the employees to comment was pleasantly high. Later, after the report was completed and implemented in ET, the surveys were divided by length of employment and whether or not the employee served on ET, to compare the percentage with the overall employee response. A breakdown of how each question was answered and an interpretation of each answer in included in Appendix C.

Selected minutes of the *ET Update* was also a part of the study. The minutes showed the progress from the beginning of the Enhancement Team to the result being implemented in the Plant Procedures Group.

Measurement of Variables.

The measurement variable, the hypothesis, showed the calculated outcome of the survey. Indirectly what the basic research might find was that perhaps morale had not been raised significantly in the Plant Procedures Group, or perhaps not even at all, but results could show there was simply a closer camaraderie with co-workers.

The next step accomplished was to formulate a decision rule, which was done when the survey and other information was obtained. After the sample was obtained, the decision rule will be used to determine whether or not the hypothesis has been accepted or rejected.

Research Instruments.

The sequence of responses in the questionnaire were intentionally ranged from highly disagree to highly agree, (negative to positive), as the person would read all the words carefully before considering checking one of high frequency.¹

Both the questionnaire and inclusion of minutes from the ET were included as the information from both are unbiased.

If the average of the responses was 4 or higher, the hypothesis would be considered to be accepted. The mean average of the questions were to determine if morale in Plant Procedures was higher due to TQM. The example on the next page shows how the questions were to be evaluated:

Numbers:

<u>Categories of Response:</u>	<u>X</u>	<u>f</u>	<u>FX</u>
Strongly Disagree	1	598	598
Disagree	2	672	1344
Neutral	3	1160	3480
Agree	4	943	3772
Strongly Agree	5	454	2270
Not Applicable 629 (for information only)		-----	-----
		3875	11464

For each scale statement, the scale was multiplied by the number of employees who selected that response. The average mean was calculated by adding the 1st column, then adding the fx column and dividing that sum, which was fx by f. This was done individually for each survey question. Thus the formula:

$$X = fx / f \quad \text{or} \quad X = 11464 / 3875 = 2.958$$

The design of the questions began intentionally with questions about the overall picture, questions about Total Quality Management (TQM). The focus then turned to Rocky Flats' version of TQM, which was the Process Improvement Team (PIT) of Rocky Flats, to the group actually surveyed, or the Enhancement Team (ET) of Plant Procedures.

Sampling Methods and Procedures.

Different processes were used to show how the data was obtained, which assisted in the determination of acceptance or rejection of the hypothesis. Highlighting the selected weeks agenda in the minutes, demonstrates or reflects accomplishments or lack of accomplishments made by the Team in Plant Procedures.

Having several co-workers, supervisors, and managers read and comment on the questionnaire, additions or corrections made as a result, ensured that each question was relevant and completely understandable. The comments also ascertained that the questions asked were as unbiased as possible.

Use of Plant Procedures employees was implemented due to the diversity in length of employment at Rocky Flats from a few months to 20+ years, plus ages ranged from 20 years through 65 years, education level contrasted from high school through doctorates degrees, work experience of an assortment from a few months through 45 years of being in the work force, an almost equal percentage of men and women, and a fair average of exempt v. non-exempt.

Analytical Methods.

The data was analyzed individually by measuring the questions asked as to whether the morale had improved. The test statistic chosen was Chi², to determine the test results.

The sample size was determined by the fact it was more practical to use the group from which the author was a member, and because the size of the group is close to 2% of the total number of employees at Rocky Flats.

Approximately 60% of the employees are male, and 40% are female. This was the only demographic segregation made.

The level of probability used was determined after the questionnaire was accomplished, and with what the data showed.

The null hypothesis was tested using the results of the questionnaire and the minutes. These tests showed whether or not the hypotheses were accepted or rejected.

The actual test statistic was accomplished from the data with a Chi-square test implemented at a .05 level of significance. This information showed whether or not the guidelines set in motion by the Enhancement Team was working in helping to raise morale in the area. As later reflected statistics wise, there was no large relationship between the implementation of the Enhancement Team and employee morale in Plant Procedures. The select small group, a percentage of all employees at Rocky Flats, showed whether or not the implementation of TQM at Rocky Flats through the example of the enhancement team has helped raise employee morale at EG&G, Rocky Flats. The indirect finding was that since the results were finalized, there has been a higher degree of people working together for the betterment of the Division to service our customer, other employees of EG&G, Rocky Flats.

Summary

Information was obtained from the two sources of information and were the determining factors in whether or not the hypothesis was accepted or rejected. This information was obtained and analyzed to see what the results revealed, and which hypothesis was correct!

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CHAPTER 4

Results and Findings

Introduction

The results presented in this chapter indicate if TQM, through the implementation of ET in Plant Procedures Division (PPG) at EG&G, Rocky Flats, helped morale in PPG. The surveys were distributed in seven different staff meetings, with the Director handing the surveys for each Group to each Group Manager, and then each Group Manager handing them out individually to the staff members in that Group. Surveys were also handed out by the Secretary's to contractor employees or temporary employees in each group, or other employees, who were unable to attend the staff meetings. The surveys were given a suspense to be handed back to the secretary of each group, within 3 to 4 working days of receipt, depending on when the staff meeting was held for that group. Each secretary and manager made certain that only the number of employees in that group received surveys, and counted them when they were returned to ascertain whether or not that group had returned all the questionnaires.

Results/Findings

Of the 120 individuals given survey questionnaires, 109 actually participated. The high percentage of participation was attributed partially to the method used to hand them out, and the urgency and importance of the feedback of the surveys from the Director. In addition to the Research Project for consideration from the results of the survey, the effectiveness of the Enhancement Team, and whether or not the Team would even continue, hinged on the results. There was an approximate 90% return on the surveys. The actual breakdown of the total surveys are shown in Appendix C. The surveys by question similarity are shown in Figure 2, with the breakdown of answers.

Question	Rating					fx	x
	5	4	3	2	1		
Quality of TQM	39	75	137	84	64	1138	2.85
ET and Morale	117	199	249	150	112	2538	3.08
Mgr & Employee Involvement in ET	38	88	99	90	67	986	2.58
ETs Impact on Comm	9	41	64	23	22	469	2.95
ET and Bias	39	54	87	42	42	788	3.10
ET Accomplishments (Acc)	19	64	85	30	29	695	3.06
ET Acc - Procedures	55	155	154	106	101	1670	2.92
ET Acc - Specific Issues	100	195	197	101	129	2202	3.05
ET Value	38	72	88	46	32	854	3.09

All six tests tested to accept the null hypothesis. However, the ET is progressing better than it ever had before, and "talk in the ranks" has it that morale has improved in the past year in Plant Procedures. Perhaps this is not due to the direct efforts of TQM, but because management and employees are working together, and communication, which along with trust, are key factors in making TQM work. In the authors opinion the test did not actually have negative results.

The actual questions included in the survey are at Appendix C. The cover letter is located at Appendix B, and the Report of Survey is located in Appendix D.

CHAPTER 5

Conclusions of Data Analysis and Literature Review

TQM has progressed in the past 18 months since this paper was begun and EG&G Rocky Flats has even received some recognition as to how well the TQM being presented to employees has been accepted by employees and upper management alike. Along with TQM, the PITs in Plant Procedures have been functioning, and have been reporting back to ET on a weekly basis. Attendance has been better at the ET meetings, and the meetings are no longer cancelled just because some of the managers are unable to attend. Overall the attitude of the ET and the members have been striving to make happier customers as well as employees in the area. The formation of the PITs have enabled supervisors and employees alike to work side by side, to network with each other, and to labor for a common goal - a better Plant Procedures for our customers, plus a trust in each other that can only be better for everyone involved and give Plant Procedures a win-win status at EG&G, Rocky Flats.

EG&G Rocky Flats could very definitely use a "face-life" in that management has to take a risk, to show the employees that upper management is behind TQM and set up teams to begin implementing plans from blue-prints and other graphics.

2 of 2

TQM has worked in other government type facilities, and it can work at EG&G, Rocky Flats. If management approves and outwardly endorses TQM working, and continues to have a positive outcome on the future, v. a negative outlook at what didn't work in the past, TQM can be alive and well at EG&G, Rocky Flats.

It was very clear from especially the feedback from the questions relating just to TQM that there are a lot of people unhappy with TQM. This is why upper management needs to set guidelines, and set examples for the employees to follow. If they have a positive attitude and are really behind the project 100%, then great, it just needs to show that this is what they are really meaning.

It was very clear in the Chapter 2 Literature Review, that everyone (meaning businesses) needed to join in, or get on the band-wagon with TQM. It does work, and has proven it can work in many countries around the world. Dr. Deming did indeed leave a legacy, and it is more precious than gold!

Effects of Limitations

The main purpose of TQM is to take risks, not to limit your business and the ideas of your employees the way blinders are used on horses. TQM users can make a difference and can increase not only profit, but employee self-esteem, and trust between the upper management, management, and the employees, as well.

Recommendations to Management

Go out on a limb! Allow the employees to set up teams and come up with their own ideas. The working force are the people directly handling all of the business on a daily basis, and are the ones most likely to come up with better ways of doing what is being done now in a faster way. The comments received from the surveys are a good indication that given, or afforded the opportunity, employees will come through and carry management through with the program which is being implemented.

THE CHALLENGE IS THERE - HOLD ON AND YOU CAN GO FAR!

APPENDIX B

Erleen F. Casey
Procedure Processing and Control
T-130H, EG&G Rocky Flats Inc.
Rocky Flats Plant, P.O. Box 464
Golden, CO 80402-0464

Employees of Plant Procedures
EG&G Rocky Flats, Inc.
Rocky Flats Plant, P.O. Box 464
Golden, CO 80402-0464

August 17, 1993

To All Members of Plant Procedures:

Total Quality Management (TQM) has been implemented through the Process Improvement Team (PIT) approach in various ways in different organizations at EG&G, Rocky Flats Plant. In Plant Procedures this has been achieved by the formulation of our own Enhancement Team (ET).

Your input to the questions on the attached survey is crucial for two reasons. First, it will aid the members of ET and Dennis Dole, our Director, in determining whether or not we are achieving some/all of our current goals. Second, the information in the survey will be used for the required statistical information in my research paper, as one of the requirements towards my Bachelor of Arts in Management Degree from the University of Phoenix.

The survey is coded. If you received a survey where the top right corner is blank, your survey is for the non-exempt employees, and contractor/temporary employees. If you received a survey with the letter 'E' printed in the top right hand corner, your survey is for exempt employees. This will determine, in addition to other information, whether or not there is a difference in the answers between the different types of employees. All employees of Plant Procedures are essential elements in accomplishing the goal of the Enhancement Team.

This survey is being conducted with the knowledge of, and permission from our Director, Dennis Dole.

Please return the completed survey, as expeditiously as possible, but no later than Monday morning, August 23, 1993, to your respective manager, per their instructions.

If you would like to know the survey results, please call me at x3031.

* * * * *

[THIS PORTION IS OPTIONAL]

Printed name	Building and cubicle Numbers	Telephone Number
* * * * *	* * * * *	* * *

Please indicate your degree of agreement or disagreement by circling the answer that most closely demonstrates your response to the question. If the question does not apply to you, or your work area, circle the NA for not applicable. Filling out the survey may be accomplished in pen (any color) or pencil. All questions on the survey need to be answered. I do welcome comments, and there is ample space on the last page to add positive feedback, or constructive criticism.

SAMPLE QUESTION:

STRONGLY DISAGREE		STRONGLY AGREE
	(Circle)	

A. At times the winds at the main plant site at Rocky Flats are severe.	1	2	3	4	5	NA
---	---	---	---	---	---	----

Thanks in advance for your effort in helping us help each other.

Erleen F. Casey
Plant Procedure Control

1 Attachment
as stated

APPENDIX C

SURVEY QUESTIONNAIRE FOR EMPLOYEES OF PLANT PROCEDURES

How many years/months have you been employed during your lifetime? As a permanent employee, how many years/months have you worked at Rocky Flats Plant (RFP)? How many years/months have you been working in the Plant Procedures Group (PPG) at Rocky Flats Plant? If you are or have been a contractor/temporary at RFP, how many months/years have you been working at RFP and/or how many months/years have you been employed in PPG? In addition, Plant Procedures concept of the Rocky Flats Process Improvement Team (PIT) is the Enhancement Team (ET). Have you ever served as a member of the Enhancement Team? If so, how many times/months?

I've been employed: (total time)

_____/_____
years months

Have you served as a member of the ET?

☐ no ☐ yes _____
number of times/months served

As a permanent employee at RFP:

_____/_____
years months

As a contractor/temporary employee at RFP:

_____/_____
years months

As a permanent employee in PPG:

_____/_____
years months

As a contractor/temporary employee in PPG:

_____/_____
years months

STRONGLY
DISAGREE

STRONGLY
AGREE

(Circle)

1. My attitude about my job during the period of time working at Rocky Flats has improved.	1	2	3	4	5	NA
2. The Total Quality Management (TQM) plan at Rocky Flats is better than my experience with TQM in places I've been employed off-site.	1	2	3	4	5	NA
3. TQM is being implemented as it should be at Rocky Flats.	1	2	3	4	5	NA
4. The activation of TQM will help alleviate stress caused by possible future layoffs at Rocky Flats the next 2 years.	1	2	3	4	5	NA

STRONGLY
DISAGREESTRONGLY
AGREE

(Circle)

5. Total Quality Management (TQM) at Rocky Flats is not a waste of time.	1	2	3	4	5	NA
6. I perceive the level of implementation of TQM in Plant Procedures as high.	1	2	3	4	5	NA
7. Employee morale has improved at EG&G, Rocky Flats due to TQM.	1	2	3	4	5	NA
8. The goal of TQM is to enable an organization to achieve total customer satisfaction through the continuous improvement of all work systems and processes. This TQM goal is being accomplished at Rocky Flats through the Process Improvement Team (PIT).	1	2	3	4	5	NA
9. My attitude about my job while working in Plant Procedures has improved.	1	2	3	4	5	NA
10. Plant Procedures Enhancement Team (ET) is enhancing the overall quality of documents at Rocky Flats.	1	2	3	4	5	NA
11. Having one manager and one representative from each of the Plant Procedures groups sit in on the ET meetings is an adequate representation of all members of Plant Procedures.	1	2	3	4	5	NA
12. Plant Procedures is an excellent place to work.	1	2	3	4	5	NA
13. I would be more likely to attend a meeting of ET if fewer managers were present.	1	2	3	4	5	NA
14. I feel the ET as a group should address more process improvement issues (such as the DMRs required for the changes to PPG 001, PPG 002, and PPG 003.	1	2	3	4	5	NA
15. Since the implementation of ET, communication has improved between non-supervisory employees and supervisors/managers.	1	2	3	4	5	NA

	STRONGLY DISAGREE			STRONGLY AGREE			
	(Circle)						
16. The Enhancement Team (ET) has provided increased guidance to Plant Procedures customers.	1	2	3	4	5	NA	
17. Since the initiation of ET in November 1992, I have noticed a more positive outlook in my own attitude about myself at work.	1	2	3	4	5	NA	
18. The ET has helped reduce development time for new procedures, revisions, and changes.	1	2	3	4	5	NA	
19. If I had it to do over again, I would still accept my present position in Plant Procedures as the place for me to work at Rocky Flats.	1	2	3	4	5	NA	
20. The ET is biased, and favors employees in exempt positions.	1	2	3	4	5	NA	
21. The ET meeting is open to all employees, and encourages employees in every <i>ET Update</i> , to participate. This demonstrates a strong commitment to me and my work.	1	2	3	4	5	NA	
22. I feel the managers' participation in ET is a stumbling block.	1	2	3	4	5	NA	
23. Plant Procedures is meeting the mission statement goal of providing and maintaining a site-wide procedures program that ensures continuous on-going control of sound administrative and technical procedures.	1	2	3	4	5	NA	
24. The ET has helped streamline the procedure process.	1	2	3	4	5	NA	
25. There has been enough evidence that ET is "working" and I think it should be continued.	1	2	3	4	5	NA	
26. The ET has obtained answers from personnel which had been previously unanswered.	1	2	3	4	5	NA	

STRONGLY
DISAGREESTRONGLY
AGREE

(Circle)

27. The ET has helped increase cost effectiveness.	1	2	3	4	5	NA
28. Managers should have less participation required of them regarding Enhancement Team (ET) issues.	1	2	3	4	5	NA
29. The efforts of the ET has increased employee morale in Plant Procedures.	1	2	3	4	5	NA
30. The ET has improved communications within the Plant Procedures organization.	1	2	3	4	5	NA
31. The ET has helped enhance customer satisfaction.	1	2	3	4	5	NA
32. The ET has addressed some issues from the employees within Plant Procedures as well as the customers.	1	2	3	4	5	NA
33. Managers have too many actions required of them regarding ET issues.	1	2	3	4	5	NA
34. If I were a voting member of the ET, more issues would be addressed.	1	2	3	4	5	NA
35. The ET has done as well as I originally anticipated.	1	2	3	4	5	NA
36. From my own point of view, the level of morale has improved in Plant Procedures since the formation of the ET.	1	2	3	4	5	NA
37. The ET has been a benefit to me as well as to the Plant Procedure Group.	1	2	3	4	5	NA

- - - - -
 The Plant Procedures Enhancement Team
 has addressed the following issues thus far:

Cost Effectiveness of Plant Procedures	Four 10-hr days for our employees
Review of Salaried Compensation Questions	Reference Library Easily Accessible
Make information readily available to writers as required in 1-88000-PP-003	Dirty Conditions of T130H
Improve system of assigning procedure levels	Operations Review Committee Process

STRONGLY
DISAGREE

STRONGLY
AGREE

(Circle)

38. Through the efforts of the Enhancement Team (ET), the cost effectiveness issue in Plant Procedures has been addressed.	1	2	3	4	5	NA
39. From my point of view, ET has been effective with the issue on the review of salaried compensation questions.	1	2	3	4	5	NA
40. The issue about making information more readily available to writers as required in 1-88000-PP-003 is working.	1	2	3	4	5	NA
41. In my opinion ET has helped improve the system of assigning procedure levels.	1	2	3	4	5	NA
42. The effectiveness of ET has helped the idea becoming more of a reality of four-10 hour work days for employees in Plant Procedures, while giving customers continuous service for six-10 hour days a week, with no over-time being expended.	1	2	3	4	5	NA
43. From my point of view ET is addressing the issue about a reference library which is easily accessible.	1	2	3	4	5	NA
44. Because of ET the dirty conditions of T130H have been improved.	1	2	3	4	5	NA
45. In my opinion the ORC process has improved because of ET support.	1	2	3	4	5	NA

APPENDIX D

ET Survey Report

August 1993

Plant Procedures

EG&G Rocky Flats

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ET Survey Summary

Intent

The purpose of the survey was to gather information from members of Plant Procedure that would ultimately result in our making some desired and useful changes to how we are developing our business. The survey is our way of entering into a conversation that can benefit all members of Plant Procedures.

Survey Response

We had 109 surveys returned from 120 people. This is approximately a 90% return.

General summary

Generally responses are positive regarding Plant Procedures and ET. Comments point to a definite need to improve ET and TQM in our organization. The most negative ratings have to do with morale, yet comments point to this being more a result of these transitional times than ET.

Members of Plant Procedures provided a wide variety of comments. The general message is that we want Plant Procedures to succeed and want true TQM to be part of the way we do business.

Surveys for Change

The difference between traditional corporate surveys and "surveys for change" is in how the survey process is managed and where the greatest effort is placed.

Emphasis	Traditional Survey	Survey for Change
High	Report	Change
	Survey	Discussion

Low	Discussion	Report
	Change	Survey

Using This Report

1. Ask yourself if your perspective on ET and Plant Procedures is represented by this report. If not, how does your perspective differ.
2. Realize that the information presented here is an honest portrayal of individual perspectives at a given point in time. The rules for dealing with perceptions are:
 - take nothing personally.
 - appreciate the honesty and concern of people who participated in the survey.
 - avoid shooting the messenger or playing "I wonder who said that" games.
 - be wary of reading information into the data that is not there.
3. Make sure we understand the real issues before we start working on solutions. Also make sure those who participated in the survey are part of the analysis and solution process. To do this we recommend:
 - each group in Plant Procedures (manager and employees) participate in a facilitated discussion of the contents of this report. The facilitator should not be part of the Manager's organization. It is the facilitator's responsibility to be sure everyone that has something to say is heard and to manage group dynamics.
 - brainstorm on what issues have caused the perceptions identified in the survey, and what's preventing ET (and Plant Procedures) from being as successful as it could .
 - prioritize the issues list to come up with the most significant issues that need attention. Ensure the issues are items that the group can control or influence. We also need to have the courage, wisdom and objectivity to answer the questions, "How am I part of the problem? How am I not part of the solution?" Any group that says "We're perfect, all the problems are because others don't do things our way" have a distorted perspective
 - analyze the top two or three issues to be sure we have truly identified the problem before coming up with possible solutions.
 - Brainstorm ways to solve the problem.
 - commit to specific actions that can be taken within 5 working days or less. It is important to have small successes quickly.
 - follow-up as needed.
4. Whatever we do must fit our needs and be perceived as valuable to the members of Plant Procedures.
5. Realize that we will never be able to have a perfect team. There will always be some who will check out or not participate, and that's OK.
6. Questions designated with an asterik (*) are worded in a negative manner such that a "disagree" response may be expected.

Quality of TQM

Summary of questions 2, 3, 5, 6 & 8.

Question	Disagree Neutral Agree						NA
	0	1	2	3	4	5	
2. The Total Quality Management (TQM) plan at Rocky Flats is better than my experience with TQM in places I've been employed off-site.	0	9	18	21	7	2	34
3. TQM is being implemented as it should be at Rocky Flats.	1	24	21	29	8	2	6
5. Total Quality Management (TQM) at Rocky Flats is not a waste of time.*	0	6	7	20	32	24	2
6. I perceive the level of implementation of TQM in Plant Procedures as high.	0	12	20	32	14	6	7
8. The goal of TQM is to enable an organization to achieve total customer satisfaction through the continuous improvement of all work systems and processes. This TQM goal is being accomplished at Rocky Flats through the Process Improvement Team (PIT).	4	8	18	35	14	5	7

Comments

- *I have not seen any changes marked as "TQM driven." Therefore I cannot give TQM credit for any improvement.*
- *I don't know enough about TQM to know whether it is being implemented or if ET is making a difference.*
- *Q#8 - To date, RFP is interested only in dollars saved; a long way from what TQM is all about.*
- *I have worked at places implementing TQM (for many years, and just starting). I have also served on several process improvement teams dealing with procedures, programs and processes.*
- *If TQM is fully implemented, not portion of TQM, then it would improve the system.*
- *The value of 3 (circled) indicates I have no opinion of any ambivalence about the question because of not having: 1) been here long enough to see TQM in action. 2) been informed of where TQM will help. 3) seen it apply to contractor position.*
- *All employees need to be trained on TQM to work as a team problem solving together, put out a quality material continuously, and to continue to improve, modify and change. Adversity to change is a fear. Lots of discussion. No rolling down hill changes observed.*
- *I have seen very little evidence of TQM in PPG.*
- *I feel if TQM were allowed to be implemented as the "plan" really follows, it could improve morale of employees, not only here in PPG, but through plant-site. Unfortunately, it isn't being done as it should be.*
- *TQM Is not implemented in our particular group of PPG. I find our manager to be unresponsive - not receptive to problems -- only wants to hear the good.*
- *Q#3 - It is in MCPP.*
- *Q#6 - It is in MCPP.*

ET and Morale

Summary of questions 1, 4, 7, 9, 12, 17, 19, 21, 28, & 34.

Question	Disagree Neutral Agree						
	0	1	2	3	4	5	NA
1. My attitude about my job during the period of time working at Rocky Flats has improved.	0	6	13	26	30	13	3
4. The activation of TQM will help alleviate stress caused by possible future layoffs at Rocky Flats the next 2 years.	0	18	19	24	14	8	8
7. Employee morale has improved at EG&G, Rocky Flats due to TQM.	0	17	30	30	5	0	9
9. My attitude about my job while working in Plant Procedures has improved.	0	8	14	19	31	14	5
12. Plant Procedures is an excellent place to work.	0	5	9	20	34	22	1
17. Since the initiation of ET in November 1992, I have noticed a more positive outlook in my own attitude about myself at work.	0	13	19	25	11	2	21
19. If I had it to do over again, I would still accept my present position in Plant Procedures as the place for me to work at Rocky Flats.	2	9	5	9	27	37	2
21. The ET meeting is open to all employees, and encourages employees in every ET Update, to participate. This demonstrates a strong commitment to me and my work.	0	5	7	32	22	15	10
28. The efforts of the ET has increased employee morale in Plant Procedures.	0	14	15	35	14	3	10
34. From my own point of view, the level of morale has improved in Plant Procedures since the formation of the ET.	0	15	19	29	11	3	14

Comments

- *I believe morale has declined in the last year but I wouldn't blame it all on the ET.*
- *Q#19. - Too soon for judgment.*
- *Q#21 - It just encourages my participation.*
- *Q12 - Could be much better!*
- *Q#4 - Alleviation of stress is not a TQM objective, nor is layoff.*

Manager and Employee Involvement in ET

Summary of Questions 11, 13, 22, 27, 31.

Question	Disagree Neutral Agree						
	0	1	2	3	4	5	NA
11. Having one manager and one representative from each of the Plant Procedures groups sit in on the ET meetings is an adequate representation of all members of Plant Procedures.	0	8	13	18	32	12	8
13. I would be more likely to attend a meeting of ET if fewer managers were present.*	0	15	21	18	16	3	18
22. I feel the managers' participation in ET is a stumbling block.*	2	22	17	17	14	8	11
27. Managers should have less participation required of them regarding Enhancement Team (ET) issues.*	0	13	22	19	12	11	14
31. Managers have too many actions required of them regarding ET issues.*	1	6	17	27	14	4	22

Comments

- *If ET survives, I feel management participation is required, both for their experience and for their ability to get things done that I could not do.*
- *One thing I did think TQM strove for was employee involvement. I believe more people would be willing to become involved if they didn't have to consider the feeling or attitudes of their manager. Also, more issues might be submitted if employees did not have to fear disapproval from their managers.*
- *The rotation of ET members has never taken place in our group, as originally planned.*
- *Q#11 - Yes, if one or other polls rest of group for comments or issues, otherwise, no.*
- *Q#22 - Only if they discourage employee empowerment.*
- *Q#27 - If we implement TQM.*
- *When the ET was first developed, my manager told my group that we would alternate as reps in the meeting. The "Lead Writer" was to be the first rep - but it never changed and he is still the rep.*
- *I do not see the purpose of the ET, if the ET bans managers, what will they be able to accomplish? Even less than now? I have never attended an ET meeting, but have submitted issues that went nowhere.*
- *Q11 - 6 month rotation too slow also.*
- *I feel ET Would be more effective with more PP employee participation. Have employee take some of the actions with managers support. Good learning experience.*
- *I feel that more people need to be involved on the ET, at least as observers, to fully understand what is happening and how it is working. This is the only way for it to be successful.*
- *Managers play too strong a part in ET meetings. It is important that managers attend but they need to allow the employees to work with the issues. The managers are intimidating.*
- *I'm glad Dennis initiated ET and has shown his great support.*
- *Also, new members have not attended since the start. Need new blood.*
- *I feel if there were only 2 managers at the ET meetings, there would be a better attendance of employees. The managers could rotate or "take turns." It could still be mandatory that at least 2 people be representative of each group for a quorum, but one of them (I feel) doesn't have to be the manager.*
- *Question 11 - Not for the larger groups.*
- *It was discouraging that management support was not universal in that one or more managers were very frequently absent, indicating their own lack of commitment or interest.*

ETs Impact on Communication

Summary of Questions 15 & 29.

Question	Disagree						Neutral		Agree		NA
	0	1	2	3	4	5	6	7	8	9	
15. Since the implementation of ET, communication has improved between non-supervisory employees and supervisors/managers.	0	10	14	32	18	4	13				
29. The ET has improved communications within the Plant Procedures organization.	1	11	9	32	23	5	10				

(No Comments)

ET and Bias

Summary of Questions 14, 20 & 34.

Question	Disagree						Neutral	Agree			NA
	0	1	2	3	4	5					
14. I feel the ET as a group should address more process improvement issues (such as the DMRs required for the changes to PPG 001, PPG 002, and PPG 003.	2	8	8	25	33	23	10				
20. The ET is biased, and favors employees in exempt positions.*	2	23	21	23	10	7	23				
34. If I were a voting member of the ET, more issues would be addressed.	0	7	13	39	11	9	30				

Comments

- Q#34 - Too many now for TQM effort.
- Q#34 - I no longer turn in issues as ET offers no help in resolving them - too many other responsibilities.

ET Accomplishments - General

Summary of Questions 16, 27 & 31.

Question	Disagree						Neutral	Agree						NA
	0	1	2	3	4	5		0	1	2	3	4	5	
16. The Enhancement Team (ET) has provided increased guidance to Plant Procedures customers.	1	11	17	32	14	3								13
26. The ET has obtained answers from personnel which had been previously unanswered.	2	7	9	29	20	7								17
30. The ET has addressed some issues from the employees within Plant Procedures as well as the customers.	1	7	4	24	30	9								16

Comments

- Q#16 - The Hot Line has - not ET.
- Shouldn't closed/resolved issues be more evident, or, maybe published differently? Difficult to tell what's been accomplished, unless you read "Update."
- I do not believe the ET provides info to, or benefits the "customers of Plant Procedures."
- Q30 - Addressed, but few resolved

ET Accomplishments - Procedures

Summary of Questions 10, 18, 23, 24, 27, & 31.

Question	Disagree Neutral Agree						NA
	0	1	2	3	4	5	
10. Plant Procedures Enhancement Team (ET) is enhancing the overall quality of documents at Rocky Flats.	0	14	18	33	21	10	13
18. The ET has helped reduce development time for new procedures, revisions, and changes.	0	21	21	23	19	7	18
23. Plant Procedures is meeting the mission statement goal of providing and maintaining a site-wide procedures program that ensures continuous on-going control of sound administrative and technical procedures.	0	9	10	20	49	17	4
24. The ET has helped streamline the procedure process.	0	19	19	26	22	7	16
27. The ET has helped increase cost effectiveness.	0	20	18	20	20	9	19
31. The ET has helped enhance customer satisfaction.	0	18	20	32	24	5	13

Comments

- Q# 10 - The people are, but not ET.
- Q#18 - PPG series has, not ET.
- Overall, I do not think ET has addressed procedure process improvement! Procedure development is still complex, and could just be the nature of the job.
- Q#31 - ET has assisted through other surveys and questions to customers an overall enhancement of customer satisfaction.

ET Accomplishments - Specific Issues

Summary of Questions 38, 39, 40, 41, 42, 43, 44, & 45.

Question	Disagree Neutral Agree						
	0	1	2	3	4	5	NA
38. Through the efforts of the Enhancement Team (ET), the cost effectiveness issue in Plant Procedures has been addressed.	3	13	11	33	24	8	17
39. From my point of view, ET has been effective with the issue on the review of salaried compensation questions.	3	15	22	21	18	7	23
40. The issue about making information more readily available to writers as required in 1-88000-PP-003 is working.	1	13	15	33	23	10	14
41. In my opinion ET has helped improve the system of assigning procedure levels.	4	15	11	28	22	9	20
42. The effectiveness of ET has helped the idea becoming more of a reality of four-10 hour work days for employees in Plant Procedures, while giving customers continuous service for six-10 hour days a week, with no over-time being expended.	2	11	8	13	34	26	15
43. From my point of view ET is addressing the issue about a reference library which is easily accessible.	1	18	16	25	26	9	14
44. Because of ET the dirty conditions of T130H have been improved.	3	4	5	20	25	26	27
45. In my opinion the ORC process has improved because of ET support.	6	17	13	24	23	5	21

Comments

- *Q#38 - How is this going to benefit our customers, who should be our main concern?*
- *Q#41 - 1-50000-ADM-05.01 owned by SAA determines this, not us.*
- *Q#42 - Dennis and Rick achieved this, not ET.*
- *Q#44 - My personal efforts and the MCPP Housekeeping policy did much more.*
- *If there are issues that were taken care of by ET, I'm not aware of the resolution (other than the 4 - 10 hour days). I do read the minutes when they are issued.*
- *Q39 - Should be continued discussion & promulgation of info from mgmt, & continued efforts from mgmt to improve SC issues.*
- *Q41 - ET didn't accept any responsibility for dealing with this issue at all.*
- *Q43 - Where is it? Is there one?*
- *Q45 - Changes I've seen in ORC had nothing to do with ET.*
- *The discussion of morale is pertinent, and, I believe the original discussion of 4 day work weeks was 4-10 hour days, with some employees taking off Friday, Saturday, Sunday, others off Saturday, Sunday, Monday, and others off Sunday, Monday, Tuesday. This would give everyone in our department Sunday off, and Sunday would be the only day we would not be giving 10 hours a day service to our customers. This would be a great morale builder, and if put in place, would be a great customer pleasing booster.*
- *Because of salary inequities and work distribution inequities, I am apathetic to the Plant Procedures group. The ET did not address these issues with Salaried Comp to my satisfaction.*

ET Value

Summary of Questions 25, 35, & 37.

Question	Disagree						Neutral		Agree		
	0	1	2	3	4	5	NA				
25. There has been enough evidence that ET is "working" and I think it should be continued.	1	12	14	29	26	14	13				
33. The ET has done as well as I originally anticipated.	0	6	17	31	20	14	21				
35. The ET has been a benefit to me as well as to the Plant Procedure Group.	2	11	15	28	26	10	17				

Comments

- *Without a major change of direction, I see the current struggle as a dying corporation trying to use advertising to make people buy what they no longer need. This simply is so that the management and employees of this dying corporation won't lose their jobs. If ET is no longer needed, let it die a graceful death.*
- *I believe strongly in the Plant Procedures Enhancement Team. It is my opinion that some people will never be satisfied and bearing that idea in mind "they" are not happy with ET. ET is only as good as the people in the group and the concerns received. Recently, concerns have been tapering off. I do not know what this means. Maybe this questionnaire will identify ET weaknesses? I do believe we (ET) can be an effective tool. Right now I feel ET is wallowing or adrift.*
- *I believe many of the issues brought to the ET are not worthy of the time/energy spent. I believe many of the issues brought to the ET are not adequately dispositioned.*
- *In my opinion, ET has not met all of the goals in their charter. The most current issue pending addresses the needs of the employees to feel that they have an ear with management, and are requesting a clear understanding of what ET should be accomplishing. As a member of ET, I feel that I have helped in eliminating a formal voting process for a group consensus. I have felt frustrated and embarrassed when issues are put off with no action week after week. I think the need still exists for managers to feel comfortable with one another, and to be able to project that co-participation of all employees in the matters of Plant Procedures. I perceive the power issue of "The Communicator" newsletter to be a direct blow to TQM in Plant Procedures.*
- *ET should continue. It's a valuable tool for plant procedures. Possibly, the TQM advisors could be contacted for assistance in keeping et at the TQM level of conducting meetings.*
- *I feel ET should definately continue, and when everyone can work together as a team, which is what TQM is all about, then ET will flourish and function correctly, and as it should have from the beginning.*

ET General Comments

- *Plainly, if ET is to survive it must find other things to do. The think-tank idea is interesting but would require major changes and strong leadership. Perhaps, there are smaller issues to address, for example, how PPG functions internally.*
- *I disqualify myself from this survey based on my being here within the group only a few weeks and having very little knowledge of ET, PIT or TQM. However, I will say that compared to my last contract here at RFP within a different group, the attitude and outlook within Plant Procedures is more positive, helpful and friendly. Management seems to work with their people versus being aloof and non-supportive.*
- *I've been on plantsite 3 years as a contractor, but I've only been to one ET meeting so I may not know enough to accurately answer all questions.*
- *I do not feel this is a valid survey for determining the continued existence of ET. There are too many questions addressed to ET that are actually TQM-related. Although ET was implemented as a TQM effort, the structure and participation focus on non-TQM principles. ET has a great potential for amazing results if: 1) we are all trained to the TQM concept; and 2) a qualified TQM facilitator works with the ET until we are entrenched in the process and can function on our own.*
- *Good questionnaire. I am interested in the results and how to use them to really apply TQM.*
- *There are too many questions connected to the ET that have nothing to do with the group. My attitude, for instance, and personal perceptions: Answers would be different if not ET-related. - A possible solution to improving results of ET:*
 - *Implement a team for managers only to work on improving leadership, teamwork, empowerment, and managerial skills, and to develop a mutual understanding and support of TQM.*
 - *Also, form a group of non-managers to work on issues, having occasional participation in group by managers. Full and committed support of managers would still be required in resolving issues and implementing ideas, even if managers not in all meetings, or*
 - *Make a decision to just drop the whole thing and accept things as they are, and as they will become. Keep crying "wolf" (TQM), with no action to back it up, and no one will believe it if and when you really mean it.*
- *I don't know a whole lot about TQM and have not had a lot of involvement with the ET, so some of these questions were difficult to answer. For those reasons, I answered with a lot of 3's (No Opinion). I put N/A for previous TQM off-site because I had no involvement with TQM prior to RFP.*
- *There's overkill in the amount of paperwork and forms to fill out.*

ET General Comments (continued)

- *A number of questions ask for a judgment on a causal relationship between ET & certain goals or issues. The problem is, the link just isn't there. The intent of ET & TQM is excellent. What is needed to improve ET is: 1) better representation of employee quality issues (this is a communication issue - not a "bodies in the meeting room" issue); 2) better causal analysis - what is the real problem; and 3) a strongly held and lived belief that we each make a difference. Plant procedures is one of the better run and more upbeat organizations on this site. Diminishing rewards, threat of layoffs and potential erosion of benefits makes fighting the complacency a tougher battle. Talent level here is outstanding. We need to work out what is the best way to make TQM work (as it should work) on a site high in leadership ability, but low in demonstrated leadership practices.*
- *I am not entirely familiar with the TQM effort, and therefore I have answered your questions as best as I can based on difference between Dec - Feb. 92-93 and present day July to present. Good luck with your degree.*
- *My N/A answers are because I lack enough information to give an opinion. Other answers I gave were primarily based on heresy from other employees who had direct knowledge and not from my personal experience which is extremely limited regarding this subject. (Note from data entry - this person has been employed for 1 month as a subcontractor.)*
- *I just recently became a part of the PPG and have been in my current position for 1 month. In that time, my experience here has been a very positive one; and I appreciate the opportunity that I have here. I'm not as familiar with ET as some of the other employees here who have been here longer. A lot of my answers are N/A because I can't answer them right now. In my opinion, the value of the individual and the concept of team are being promoted - ET, individual staff meetings, enhance both.*
- *As a contractor, and a new one at that, my knowledge with the effects or ramifications of ET is minimal. More information on this activity could be disseminated to all new contract employees.*
- *During my "tenure" on the ET, far too many issues were addressed that were strictly management/employee conflicts or communication problems.*
- *I've not worked for EG&G long enough to have an opinion about the performance of ET (as a result, answers were marked "3" or "N/A"). However, the subjects covered in the questions appear to demonstrate that perhaps ET covers far too much ground, (both organizational and personnel issues) and would perhaps be more effective if either one area or the other were chosen to direct the efforts of ET. I do feel that scheduling for ET since I came here in late May has been erratic and poorly communicated. I would be more involved if scheduling and topics were communicated and the scope or focus of the group were more defined.*
- *I have answered all of the questions that I feel that I can intelligently answer due to my recent rehire.*

INTEROFFICE CORRESPONDENCE

DATE: November 18, 1992

TO: Distribution

FROM: D. L. Dole, Plant Procedures, Bldg. T130H, X7584

SUBJECT: PLANT PROCEDURES ENHANCEMENT TEAM - DLD-141-92

PURPOSE

The purpose of this memorandum is to inform Plant Procedures personnel of the establishment of the Plant Procedures Enhancement Team (ET) and to solicit your input to the team.

DISCUSSION

In an effort to provide a formal system that promotes co-participation between employees and management in communication and resolution of issues, the Plant Procedures ET was established. The ET consists of a manager and representative from each of the groups within the Plant Procedures Organization. The current ET members are:

H. L. Bluder	B. M. Moore
D. M. Butler	J. B. O'Meara
D. L. Dole	C. D. Robinson
J. L. Dunlop	R. Schoenberger
C. S. Getman	H. E. Smith
G. S. Hyatt	P. J. Sosa
T. J. Kehoe	C. W. Stone

Representation on this team will be on a rotating basis to allow participation by other members of the Plant Procedures organization.

Three ET meetings have been held to date to establish ground rules, methodologies, charter, etc. The charter for the ET is shown in Attachment 1. It is important to note that the ET is not a substitute for the normal process of communication and interaction between an employee and their Manager or Group Lead. That critical interface must remain intact. Also, the following criteria should be used to identify those issues that are inappropriate for consideration by the ET:

- Resolution has not been pursued through your Manager.
- Industrial Relations issues, e.g., Equal Opportunity, Harassment, should be referred to management or Industrial Relations.
- Personal salary, merit increase, performance appraisal, etc., should be discussed with your manager or Salary Compensation.
- Personal conflicts with other Plant Procedures personnel should be discussed with management.

The ET is now prepared to begin working with issues as presented to the team by any Plant Procedures member. The method for presenting an issue to the team is through completion of a Plant Procedures Issue form (Attachment 2) and submittal to any ET member. The issues will be entered into the ET system on a chronological basis and reviewed by the team in the order in which they are received by the Notekeeper to ensure that all issues receive the same priority. After an issue has been dispositioned by the ET, the originator will receive written notification of the outcome. Minutes of the ET meetings will be distributed as a means of communicating issues, and publishing dispositions, to the entire organization.

The ET members are excited about the potential of the team and the opportunity to work with those issues that will improve the quality of work and the effectiveness of the Plant Procedures organization. It is my hope that the improvement brought about by everyone's involvement in this effort will make the Plant Procedures organization one of which you are proud to be a member.

RESPONSE REQUIREMENT

Please submit a Plant Procedures Issue form for any issue that you would like to have reviewed by the ET. If you have any questions, please contact any ET member.

jkg

Attachments:
As Stated

Distribution

B. D. Adaris	S. Mathiasmeier
M. E. Baldaia	M. H. Montez
L. S. Beebe	B. M. Moore
H. L. Bluder	D. A. Munoz
R. L. Booco	S. L. Nortnik
K. A. Briggs	J. B. O'Meara
M. A. Brown-Strattan	A. B. Papp
L. M. Brugger	R. L. Peabody
S. J. Bruske	D. L. Peck
D. M. Butler	J. O. Perrine
E. F. Casey	D. J. Pikkaraine
R. G. Cloud	S. L. Retundi
J. N. Conyers	P. L. Rich
A. V. Cook	E. L. Riley
J. L. David	C. D. Robinson
J. L. Dunlop	F. L. Sanda
D. R. Edmiston	C. Sandoval
M. K. Fiore	C. R. Sauerland
M. S. Frazier	J. E. Schauer
C. S. Getman	R. Schoenberger
R. D. Gilbert	H. E. Smith
D. L. Gordon	P. J. Sosa
K. V. Hansen	M. J. Stampados
D. J. Harlan	C. W. Stone
K. J. Haughn	S. M. Tracy
A. Hays	A. L. Vigil
D. L. Hildebrandt	J. L. Wegner
B. M. Hoffman	T. E. Wright
D. Hoffmann	
G. L. Hunter	cc:
G. S. Hyatt	H. S. Berman
G. W. Jensen	M. M. McDonald
A. E. Johnson	
A. E. Jones	
C. B. Jones	
D. A. Kane	
T. J. Kehoe	
J. B. King	
L. E. Klanecky	
T. J. Kluge	
M. D. Knoblauch	
T. R. Kostelecky, Jr.	
P. C. Koza	

PLANT PROCEDURES ISSUE FORM

Group: TAPG, TOC, TW, E&WM, ADMIN. PP&C
(Circle One)

ET Rep. _____
Submitted by: _____
(Optional)

ISSUE/CONCERN (One Sentence Summary)

BACKGROUND/DISCUSSION

SUGGESTED SOLUTIONS

ET DISPOSITION/RESPONSE

Issue No. _____
Date Recd. _____
Disposition Date _____

CHARTER

SCOPE

The Plant Procedures Enhancement Team provides an open forum for the timely identification of issues, concerns, and problems from within the group that would affect the writing group's effectiveness and quality of work. The team accepts and addresses written issues or concerns from individual members of the writing groups, determining if the concern should be addressed within the Team or referred to upper management. This process shall ensure that a formal system exists through co-participation of employees and management to promote communications, resolve problems, and enhance the overall quality of the Plant Procedure Groups' efforts towards quality documents for the Rocky Flats Plant.

STRUCTURE

- (1) Voting members shall consist of one manager and one representative from each of the Plant Procedures Groups. At least one representative from each group must be present to have a voting quorum. A simple majority vote will rule.
- (2) A moderator (rotated weekly) will open, close, and direct the meeting to help ensure discussions are kept on track and issues dealt with in a timely manner.
- (3) A non-voting person will attend each meeting in the capacity of Notekeeper to record and disseminate the information from each meeting and the agenda for the next meeting.
- (4) Regularly scheduled meetings will be held, the time and date to be determined at the conclusion of each meeting.
- (5) Non-voting presenters and guests are welcome at the meetings.

INTEROFFICE CORRESPONDENCE

DATE: September 1, 1993

TO: All Plant Procedures Personnel

FROM: *J. O. Perrine*
J. O. Perrine, Technical Assurance Procedure Group (TAPG), Bldg T130H, X6621

SUBJECT: ENHANCEMENT TEAM (ET) RECOMMENDATIONS - TAPG-018-93

Casey, E. F.
Proc Processing & Control
T130H

PURPOSE

The purpose of this memorandum is to provide a list of compiled recommendations from all of the Plant Procedures groups following analysis of the Plant Procedures Survey results during the week of 30 August 93.

DISCUSSION

Listed below are the recommendations provided to me by the writing groups of Plant Procedures in response to the ET meeting of August 31, 1993:

1. Rotate ET members at shorter intervals (5 weeks) to keep new blood in the ET.
2. Have a "white flag" type of situation to allow members to indicate their sense of being overpowered by a managers presence.
3. Concentrate analysis of the survey on the written comments, and consider duplicate written comments as serious.
4. ET needs TQM training as a PMT.
5. Representation may need to be based on job description, not by group.
6. Redefine ET charter.
7. Reduce management domination, rotate leadership assignments or have outside facilitator.
8. Get management team TQM trained.
9. Have TQM representative present something to ET.
10. Have ET decide if it is an issue ET can handle or does it need to go somewhere else. Communicate that decision to all PP members.

11. Set a time limit of actions requirements on an issue and hold people responsible for the actions.
12. Give each issue an Issue Custodian to be the Point of Contact for all reporting on that issue.
13. When an item is closed, identify who the issue was sent to or what action was taken to cause the issue to be closed.
14. Have the ET moderator in place for 4-6 weeks to help maintain continuity.
15. Have ET meetings outside working hours. Some people just can't participate when regular work is always so backlogged.
16. Have more all-hands meetings on the porch, where everybody can hear information firsthand.
17. Get the PPG-001, 003, 004 procedure revisions underway quickly.
18. Turn the ET newsletter into more of a Minutes of the Last Meeting type document rather than just an issues report. This will provide more information transfer.

RESPONSE REQUIRED

Please review these recommendations and be ready to discuss and resolve them at the next ET meeting on Wednesday, September 8, 1993, @ 8:00 A.M., in T130H War Room. For anyone who cannot attend, please provide your input to a valued ally who will be able to present your information to the team.

*Comments due COB
to Rick S. 10-15-93*

Rocky Flats Plant

REVISION 0, DRAFT B Enhancement Team Charter

APPROVED BY: _____
Plant Procedures Director Print Name Date

Effective Date: _____

1 **MISSION**

2

3 The purpose of the Plant Procedures Enhancement Team (ET) is to provide an open
4 forum in which Plant Procedures personnel can present issues, concerns, or problems that
5 affect themselves or other members of the directorate. ET ensures that a formal system
6 exists for coparticipation of management and employees that will promote
7 communication, address issues, and in general enhance the quality of the work
8 environment within Plant Procedures organization.

9

10 **SCOPE**

11

12 The ET accepts and addresses issues, submitted in writing, that could affect Plant
13 Procedures' effectiveness as a writing group or the quality of work life for any Plant
14 Procedures employee.

15

16 ET assigns subcommittees, process management teams (PMTs), or process improvement
17 teams (PITs) to assist in issue resolution on a case-by-case basis.

18

19 **DEFINITIONS**

20

21 **Action Group** A group, of at least two persons, that is appointed by ET, or has
22 volunteered to assist ET in comment resolution that may act as a subcommittee, PMT, or
23 PIT.

24

25 **Action Plan** A detailed scheme, program, or method planned out and published for the
26 accomplishment of an objective. An action group shall present either a verbal or written
27 Action Plan at the ET meeting following the meeting in which they were assigned a task.
28 The Action Plan shall be tracked on the ET Whiteboard.

29

30 **ET Member** All Plant Procedures personnel are ET members by virtue of their
31 employment. **Representation** at ET is determined by each of the functional groups in
32 Plant Procedures with no distinction as to numbers, status, or duration of tenure. For
33 example, one Plant Procedure group may decide to have three representatives at all ET
34 meetings, and one of these representatives is the manager or designee. This group can
35 also decide to rotate representatives on a staggered basis every three months. Another

1 group, however, may have nine representatives, none of which is a manager; and all
2 members serve for six months.

3
4 **Issue Custodian** That person who volunteers or is assigned responsibility for tracking
5 the progress of an ET Issue until it is resolved or passed out of the ET forum.

6
7 **Quorum** The minimum number of ET members who must be present for decision
8 making (voting) to occur. The minimum representation for an ET quorum is two
9 members from each of the Plant Procedures functional groups. The manager can be one
10 of these members but management representation is not required. Whenever a quorum is
11 present and voting occurs however, ALL members present may vote on an equal level
12 with all other members present.

13
14 **White Flag Rule** A notification method in which a white flag is used by an ET member
15 to indicate that a speaker is dominating a discussion or in any way overpowering the
16 situation. The offending speaker is then expected to show courtesy and stop the
17 discussion domination.

18 19 RESPONSIBILITIES

20 21 **Issue Custodian**

22
23 Track the status of assigned issues.

24
25 Maintain the designated "white board" with the current status of assigned issues.

26
27 Retain any documentation concerning open issues.

28
29 Solicit expertise/resources for issue disposition.

30 31 **ET Member**

32
33 Participate in discussions , pollings, and votes during the ET meetings.

34
35 Participate in subcommittees, PMTs, or PITs when requested.

1 Act as moderator on a revolving and voluntary basis

2

3 Moderator

4

5 Open and close each ET meeting.

6

7 Maintain order and focus during the ET meetings.

8

9 Conduct polling when appropriate

10

11 Establish the agenda for the following ET meeting.

12

13 Review ET meeting minutes with the Notekeeper before distribution.

14

15 Ensure that the notekeeping responsibilities are equally rotated among all the writing
16 groups.

17

18 Explore and use various group decision-making techniques.

19

20 Notekeeper

21

22 Produce and disseminate meeting minutes and agenda prior to the ET meetings.

23

24 Record the information discussed at the ET meetings.

25

26 Retain ET Issues Notebook.

27

28

1 **DIRECTIONS**

2

3 **Moderator**

4

5 [1] Open each meeting with introductions of all members .

6

7 [2] Discuss new issues.

8 [A] The issue originator must be present for the discussion of a new issue

9 [B] Discussion will be limited to the immediate issue at hand

10 [C] Although a time limit is not a requirement, the moderator may strongly
11 direct the discussion to ensure adequate time for all items to be addressed.

12 [D] The new issue discussion should be focused on "What is the issue, really?"

13 [E] " Is this an ET issue, or does it need to go somewhere else for resolution?"

14 [F] Use either "consensus polling" techniques, or a vote to determine action on
15 an issue. If voting is used, a simple majority of all members present decides
16 the issue.

17 [G] At the appropriate time, summarize the issue and its resultant actions for
18 clarification and for the Notekeeper

19

20 [3] Get reports from existing Action Groups

21 [A] Each Issue Custodian reports on the progress, status, and/or resolution of
22 their issue.

23 [B] Open discussion of the issue and its progress may take place. The
24 Moderator is reminded to use time judiciously.

25 [C] Remind Issue Custodians to keep the "White Board" updated.

26 [D] Request justification for any missed milestones or nonaction periods.

27

28 [4] Open the floor for discussion of any nonwritten issues that may occur.

29 [A] Moderator control tightly any discussion on issues not yet formally
30 submitted in writing.

31 [B] Unless the issue is immediately resolved, request the originator submit in
32 writing. This will enhance tracking efforts.

33

34 [5] When issues are presented for closure, ensure that the originator concurs with all
35 dispositions prior to closure.

- 1 [6] Summarize all activities which occurred this meeting. Ensure the Notekeeper has
2 no questions about any discussion or action.
3
4 [7] Poll the group to determine the effectiveness of today's meeting. When each
5 member has been heard, the meeting can be closed.
6
7 [8] Solicit volunteers to be the next moderator.
8

9 **Notekeeper**

- 10
11 [1] Record in whatever fashion is comfortable the notes of activities and discussions
12 at the ET meeting.
13
14 [2] Ensure that any direct action assignments and/or specific commitment dates or
15 actions are recorded.
16
17 [3] At the conclusion of the meeting, transcribe the notes into the word-processed
18 format for the ET minutes.
19
20 [4] Review the minutes with the Moderator and ensure both agree on the contents.
21
22 [5] Deliver a copy of the minutes to each Plant Procedure Manager by Friday
23 following the ET meeting.
24
25 [6] Ensure that the items discussed and not accepted by ET are identified along with
26 the disposition.
27

28 **ET Member**

- 29
30 [1] Attend ET meetings when appropriate.
31
32 [2] Participate in the discussions, consensus polling, voting, and in Action Groups.
33
34 [3] Complete the ET Issues Form in accordance with the instructions in the Issue
35 Notebook.

1 **BYLAWS**

2

3 Unless otherwise addressed, conduct all meetings under the general guidelines of *Robert's*
4 *Rules of Order*.

5

6 When consensus polling is used on an issue, all members present will be given full
7 opportunity to express their position.

8

9 When voting is used, each member in attendance is given one vote, equal to every other
10 vote.

11

12 A voting quorum consists of two representatives of each Plant Procedures writing group.
13 The Directors staff is not a required member of the quorum.

14

15 A discussion quorum consists of one member from each writing group.

16

17 The Issue Custodian is responsible for maintaining their issue status on the White Board.

18

Charter

Plant Procedures

MISSION STATEMENT

Provide and maintain a sitewide procedures program that ensures consistent generation, maintenance, and control of sound administrative and technical procedures that will protect the environment, and the health and safety of the public and Rocky Flats Plant (RFP) employees.

SCOPE

To ensure that all procedures at the Rocky Flats Plant comply with RFP, Department of Energy (DOE), Environmental Protection Agency (EPA), Design Agency, and other applicable regulatory requirements. The Plant Procedures organization provides and maintains the procedure development process for RFP. Support and administrative capabilities are provided, as necessary, to generate, revise and control all administrative and technical procedures as defined and authorized by 1-11000-PAPG-001, 002, and 003 which implement regulatory requirements.

ORGANIZATION

The Director of Plant Procedures directs the management, planning, and control for the Plant Procedures organization in accordance with DOE and RFP policies, procedures, and directives.

The following departments report to the Director of Plant Procedures:

- Technical Assurance Procedures Group
- Technical Operations Control
- Technical Writing
- Environmental & Waste Management Procedures
- Administrative Procedures
- Procedure Processing & Control

RESPONSIBILITIES

Responsibilities of the Plant Procedures organization include, but are not limited to, the following:

1. Control and maintain the procedure development process at RFP to ensure compliance with regulatory requirements and meets or exceeds industry standards. Develop and maintain procedures for use by RFP personnel regarding the procedure development process, writing guidelines, etc.
2. Ensure that prescribed activities at the Rocky Flats Plant can be performed in accordance with accountable, approved administrative and technical procedures that provide traceability, compliance, and certification history.
3. Interface with DOE, RFP, and Design Agency technical personnel and management to resolve procedural issues associated with product, facility operation, regulatory compliance, health and safety, environment/waste and quality.
4. Provide guidance to RFP organizations concerning DOE and RFP standards for procedural development.

5. Prepare, revise, maintain, and control all War Reserve (WR) related documents in accordance with established agreements with Los Alamos National Laboratory, Lawrence Livermore National Laboratories, and Sandia National Laboratories; and with established procedures listed in the Rocky Flats Technical Writing Standards Manual, the Rocky Flats Program Management Manual, the Sandia Engineering Procedures Manual, and RFP classified document control requirements.
6. Prepare, revise, and maintain administrative and technical procedures necessary to satisfy the safety envelope, complete mission requirements, and ensure the safe and effective operation of RFP facilities.
7. Provide a verification and validation function to assure that administrative and technical procedures are functional and clearly presented, and that the safety of all Rocky Flats employees, the public, and the environment will not be compromised.
8. Prepare, revise, and maintain technical procedures in support of vital safety systems, facility operational safety requirements, environmental/waste operations, facility utilities, maintenance, emergency preparedness, and safeguards and security.
9. Prepare, revise, and maintain administrative procedures in support of sitewide functions including management controls, health and safety requirements and environmental/waste operations.
10. Maintain the Operational Safety Analysis (OSA) program and establish its configuration with controlled procedures.
11. Lead and support the DOE-wide Procedures Special Interest Group, in the interests of information sharing and resource savings.

ACCOUNTABILITY

DOE Orders, Institute of Nuclear Power Operations (INPO) guidelines, Performance/Quality Assurance requirements, and other standards governing procedure development at Rocky Flats, such as:

- PAPG-001 thru 003
- DOE Order 5480.19, Conduct of Operations
- DOE Order 5480.5, Safety of Nuclear Facilities
- NQA-1, Quality Assurance Program Requirements
- INPO 85-017, Guidelines for the Conduct of Operations at Nuclear Power Stations
- DOE Order 5480. PRO, Procedures at DOE Nuclear Facilities (Draft)

APPROVALS:

D. L. Dole, Director Date
Plant Procedures

H. S. Berman, Associate General Manager Date
Engineering and Technology

ET Process (Proposed)

1. Clear statement of issues - first goal, identify the real problem. (Sometimes we have solutions looking for problems)

Some questions that might be asked to help get to the core issue:

- What's not getting done?
 - What is getting done that we want more of?
 - What's preventing this from working (root cause)?
 - lack of skills or training
 - real or perceived roadblock(s)
 - unclear expectations
 - lack of feedback
 - lack of or inappropriate consequence system
 - other
 - What would happen if we did nothing?
 - How does this affect the quality of our products or services?
 - How does this affect the quality of our work environment?
 - What is the larger picture - how does this issue look if we "pull back" a bit?
 - What is the problem behind the problem?
 - What resources are needed to resolve this issue?
 - What is the payoff for resolving this issue? Does the payoff outweigh the cost? (soft or hard dollars)
2. Managing discussion
 - put a time limit on open discussion (we might even want to use a real timer)
 - use the polling technique. Can be used to start, then move to open discussion, and then close with a round or two of polling.
 - use of the polling technique for brainstorming and follow the basic rules of brainstorming (avoid judgment during the mind dump phase)
 - use of a "gatekeeper" function
 - promote useful discussion and be read to backtrack whenever necessary.
 - stop non-productive discussion. Some issues need a small focused task force, not a large group for discussion.
 - use the "80" rule.
 3. Managing ourselves
 - be willing to ask and honestly answer the following questions:
 - How am I part of the problem?
 - How am I not part of the solution?
 - How am I part of the solution?

ENHANCEMENT TEAM UPDATE

THIS MEETING: November 10, 1992
NEXT MEETING: November 17, 1992

11 - 1, T130H Conf. Room
11 - 1, T130H Conf. Room

Page 1 of 4

Notekeeper: Cindy Stone
Gatekeeper: Mike Butler
Team Lead: Dennis Dole

Start: 11:10 AM
End: 12:55 PM

The second meeting of the (formerly) Performance Enhancement Team resulted in establishment of some basic ground rules and data for the team. Issues discussed this week included

- ☐ Name and acronym
- ☐ Length and frequency of meetings
- ☐ Voting policy
- ☐ Notekeeper and moderator titles and functions
- ☐ Meeting agendas
- ☐ Collection and presentation of information
- ☐ Charter
- ☐ Authority, purpose and scope
- ☐ Progress indicators review and tracking

All items on agenda were discussed, but two issues were not resolved. Charter and progress indicators will be carried over to next meeting for resolution.

Results and summary of discussions

Name and acronym : Enhancement Team (ET)

Following suggestions also considered:

PSST! - Process Superiority Support Team
PEG - Program Enhancement Group
RESOLVE
PIT - Process Improvement Team
PET - Process Enhancement Team
SQAT - System Quality Action Team

ENHANCEMENT TEAM UPDATE

THIS MEETING:	November 10, 1992	11 - 1, T130H Conf. Room
NEXT MEETING:	November 17, 1992	11 - 1, T130H Conf. Room

Page 3 of 4

Meeting agendas : Agenda for the next meeting will be established at end of each meeting, and distributed to members prior to beginning of next meeting.

We discussed issues such as if set agenda should be used, how to deal with additional items that may not be on agenda yet but must be addressed before next meeting, and how to prioritize or categorize items.

We agreed that having a pre-determined agenda to follow would help keep meeting on track. To maintain fairness and ensure that even "small" items are responded to in a timely manner, items will be addressed in order received, with allowance for items that team agrees are urgent and warrant immediate attention.

Collection and presentation of information : All suggestions, problems, ideas, etc. will be submitted on form to ET.

PP personnel wishing to get an item on the agenda will fill out form (in progress) and give to ET rep, and discuss with rep if necessary to explain item. Rep will contact notekeeper to add to agenda item list. Notekeeper will list items chronologically and record subject of item, one sentence summary of item, rep's name, and date received.

As moderator addresses each item on agenda during meeting, the designated rep will briefly present the item, and members will determine disposition of item. Items not already on agenda may be added during meeting if necessary, and if must be addressed immediately, will be discussed during allotted "open" time.

Hal Bluder will turn form-making over to Kathi Haughn, and she will bring samples for us to review and approve next week. We will bring in agenda items from our groups next week to give Kathi a chance to prepare for accepting data.

Charter : A subcommittee comprised of Mike Butler, Pat Sosa, and Tom Kehoe will work on creating charter statement and present to team next meeting for discussion and decision.

Once charter, authority, purpose, and scope of team is established, we will need to publicize ET. A task group to implement PR will include Judy Dunlop, Sharon Nortnik, and any other volunteers.

Authority, purpose and scope : To be determined after charter is established.

Discussed this issue and determined that it would be more appropriate to address after charter is established. It was reiterated that the ET is not meant to be a substitute for management, and will not be used to usurp managerial or corporate authority.

ENHANCEMENT TEAM (ET) UPDATE

THIS MEETING: January 12, 1993
NEXT MEETING: January 19, 1993

11:00 - 1:00, T130H Conf. Room
11:00 - 1:00, T130H Conf. Room

Page 1 of 5

Notekeeper: Kathi Haughn - x 3542
Moderator: Tom Kehoe

Start: 11:10 AM
End: 1:00 PM

All Plant Procedures personnel are reminded they are invited to attend any Enhancement Team meeting.

This week's meeting of the Enhancement Team (ET) was a very successful one. Issues discussed this week included

- ☐ Progress Indicators Form
- ☐ Reviewers List
- ☐ Hazardous Waste Receptacle in T130H
- ☐ Salary Compensation Questions
- ☐ Many Standard Plant Operating Practices are not Adequately Promulgated to Personnel
- ☐ Should a "Core Curriculum" of Training be Developed
- ☐ Impact on Time When Statusing Commitment Actions
- ☐ T130H Cleanliness
- ☐ Ability to Meet Procedure Deadlines
- ☐ Plant Procedures Personnel Participation

Results and summary of discussions

Issue - Enhancement Team Progress Indicators

Goal - Develop a simple, useful measure of the Enhancement Teams performance.

Value Added - Ensure the work of the Enhancement Team is truly beneficial to Plant Procedures, Engineering and the Rocky Flats organization. Ideally this would indicate some kind of bottom line impact.

Discussion - We agreed the form could be kept by members of the Enhancement Team in a binder. It could be used as a quick reference for the team for types of issues discussed and of what value the resolutions are to Plant Procedures as a whole. The responsibility for imputing information will be on a two month rotating basis. Issues will be categorized in

ENHANCEMENT TEAM (ET) UPDATE

THIS MEETING: January 12, 1993
NEXT MEETING: January 19, 1993

11:00 - 1:00, T130H Conf. Room
11:00 - 1:00, T130H Conf. Room

Page 3 of 5

Discussion - The proposed questions for Salary Compensation were reviewed. Salary Comp. has advised that a presentation will be given to all Managers sometime in the future.

Action - Dennis Dole will present the questions to Salary Comp. and schedule a time for Salary Comp. to meet with the Enhancement Team.

Issue #ET-009-92 - Standard Plant Operating Practices

"Many standard plant operating practices are not adequately promulgated to personnel by management."

Goal - Establish a quality standard for plant operating practices.

Value Added - Compliance with standard site operating practices and reduction in items returned for corrected format.

Discussion - Information needs to get to all Plant Procedures personnel on standard practices for items such as correspondence, building lockups, etc. Secretaries should be involved in all correspondence prepared. The Engineering and Technology format should be used on all correspondence except external. A procedure titled "Plant Procedures Employee Orientation" is in parallel review. This procedure is to help set guidelines for all Plant Procedures personnel.

Action - The Enhancement Team would like to receive suggestions of standard practices to be included in the procedure, i.e. correspondence guidelines, building lockups, etc. Plant Procedures managers are reviewing the procedure.

Issue #ET-010-92 - Core Curriculum of Training

"Should a 'Core Curriculum' of training be developed for various positions (i.e. Managers, Tech. Writers, Leads, Secretaries, etc.) that can be used for scheduling yearly/periodic training rather than the haphazard or non-existent methods now used?"

Goal - To make sure that all Plant Procedures personnel are trained in areas where needed.

Value Added - Personnel receive the training necessary to perform their jobs in an efficient and business like manner.

Discussion - Carla Haines of Engineering and Technology has a Core Curriculum that includes all of Plant Procedures. This does need to be expanded to include internal training such as Plant Procedures Orientation.

Action - Rick Schoenberger and John O'Meara will prepare a list of internal training which needs to be added to the existing Core Curriculum.

ENHANCEMENT TEAM (ET) UPDATE

THIS MEETING: January 12, 1993
NEXT MEETING: January 19, 1993

11:00 - 1:00, T130H Conf. Room
11:00 - 1:00, T130H Conf. Room

Page 5 of 5

Issue - Plant Procedures personnel participation in Enhancement Team meetings.

Goal - Encourage the use of the Enhancement Team.

Value Added - Provide issues that concern all Plant Procedures personnel.

Discussion - A high percentage of the issues submitted to the Enhancement Team are coming from the members of the Team itself. Would like to receive more issues from employees outside the Enhancement Team. Would like to receive issues regarding the procedure process and how the procedure process might be enhanced.

Action - All managers to discuss with their employees.

Next Week's Agenda:

- ☐ Salary Compensation Questions
- ☐ Core Curriculum
- ☐ Dirty Conditions of T130H
- ☐ Procedure Deadlines
- ☐ Any new problems submitted

Notekeeper: **Kathi Haughn**
Moderator: **Judy Dunlop**

Team Member Listing:

<u>Name</u>	<u>Dep't.</u>	<u>Loc.</u>	<u>Ext.</u>	<u>FAX</u>
H. L. Bluder	TOC	452	3394	4528
D. M. Butler	Tech Writing	460	4600	4589
D. L. Dole	Plant Procedures	T130H	7584	8320
J. L. Dunlop	PP&C	T130H	6593	8320
C. S. Getman	TAPG	T130H	6623	8320
G. S. Hyatt	Admin Procedures	T130H	7968	6612
T. J. Kehoe	Plant Procedures	T130H	6562	8320
B. M. Moore	TOC	452	3185	4528
J. B. O'Meara	PP&C	T130H	6615	8320
C. E. Robinson	E&WM Procedures	051	273-6003	273-6245
R. Schoenberger	TAPG	T130H	6611	8320
H. E. Smith	E&WM Procedures	051	273-6238	273-6245
P. J. Sosa	Tech Writing	460	2543	4589
C. W. Stone	Admin Procedures	T130H	8295	6612

ENHANCEMENT TEAM (ET) UPDATE

THIS MEETING: June 1, 1993
NEXT MEETING: June 8, 1993

11:15- 11:30 T130H Conf. Room
11:15- 1:00, T130H Conf. Room

Page 2 of 2

Team Member Listing:

<u>Name</u>	<u>Dep't.</u>	<u>Loc.</u>	<u>Ext.</u>	<u>FAX</u>
H. L. Bluder	TOC	452	3394	4528
D. M. Butler	Tech Writing	460	4600	4589
D. L. Dole	Plant Procedures	T130H	7584	8320
J. L. Dunlop	PP&C	T130H	6593	8320
C. S. Getman	TAPG	T130H	6623	8320
G. L. Hunter	TOC	452	8296	4528
G. S. Hyatt	Admin Procedures	T130H	7968	6612
C. Jones	E&WM Procedures	T130H	3603	8320
T. J. Kehoe	Plant Procedures	T130H	6562	8320
J. B. O'Meara	PP&C	T130H	6615	8320
R. C. Oursler	Admin Procedures	T130H	4649	6612
R. Schoenberger	TAPG	T130H	6611	8320
H. E. Smith	E&WM Procedures	T130H	6620	8320

Casey, E. F.
Proc Processing & Control
T130H

ENHANCEMENT TEAM (ET) UPDATE

THIS MEETING: June 29, 1993
NEXT MEETING: July 13, 1993

11:00- 1:00, T130H Conf. Room
12:00- 1:00, T130H Conf. Room

Page 1 of 4

Casey, E. F.
Proc Processing & Control
T130H

Notekeeper: Candy Molter
Moderator: Tom Kehoe

Start: 12:00 AM
End: 1:00 PM

All Plant Procedures personnel are reminded that they are invited to attend any Enhancement Team meeting.

Issues discussed at this weeks meeting included:

- Four 10 hour days
- Reference Library Which is Easily Accessible
- Make information readily available to writers as required in 1-88000-PP-003.
- Improve system of assigning procedure levels.
- There are no requirements regarding the development of similar yet stand-alone procedures.

Results and summary of discussions

Issue #ET-019-93 - Four Ten Hour Days

"Work 4 ten hour days/week."

Goal - Supply the plant with personnel from Plant Procedures on a 50 -60 hour week without the use of overtime.

Value Added - Personnel morale will be higher because of everyone having a three day weekend. The plant would have Plant Procedures personnel available 10 hours a day without the use of overtime.

Discussion - Herb Berman made presentation to AGM's with favorable response. Letter sent to Marx for evaluation and DOE approval, hopefully we will have a response within 30 days.

Action - Await decision from Marx and DOE approval for site.

ENHANCEMENT TEAM (ET) UPDATE

THIS MEETING: June 29, 1993

11:00- 1:00, T130H Conf. Room

NEXT MEETING: July 13, 1993

12:00- 1:00, T130H Conf. Room

Page 3 of 4

Discussion - Assigning procedure levels is based on how many AGM or department boundaries are crossed by procedure performers. The document hierarchy procedure indicates that all technicals should be level 4 without addressing fact that they may cross AGM boundaries. Other sources do not dictate that technicals must be level 4. Confusion and conflict also exists as to what level of detail should be in a different procedure levels. It was mentioned that detail has nothing to do with The level of a procedure. The Document hierarchy procedure and the Dictionary need to be in agreement. After a decision is reached, John O'Meara will incorporate a handout of procedure levels for training as guidance.

Action - It was suggested Don Trock and/or Cindy Stone attend next ET meeting for further discussion.

Issue #ET-040-93 - There are no requirements regarding the development of similar yet stand-alone procedures.

"Recently, I encountered stumbling blocks regarding five procedures. Three of the procedures were similar, as were the other two procedures. The procedures had been written over 1 year ago, and I was directed to get them reviewed, concurred with, and approved. I am concerned that every time I want to make a change to one of the procedures, I will have to DMR all three."

Action - Harry Smith will talk to Don Patton, ORC chairperson, and report back at next ET meeting.

Next Week's Agenda:

- ☐ Four 10 hour days
- ☐ Reference Library Which is Easily Accessible
- ☐ Make information readily available to writers as required in 1-88000-PP-003.
- ☐ Improve system of assigning procedure levels.
- ☐ There are no requirements regarding the development of similar yet stand-alone procedures.
- ☐ Any new issues.

Notekeeper: **Candy Molter**

Moderator: **Tom Kehoe**

ENHANCEMENT TEAM (ET) UPDATE

THIS MEETING: January 26, 1993
NEXT MEETING: February 2, 1993

11:00 - 1:00, T130H Conf. Room
11:00 - 1:00, T130H Conf. Room

Page 1 of 5

Notekeeper: Kathi Haughn
Moderator: Judy Dunlop

Start: 11:15 AM
End: 1:00 PM

All Plant Procedures personnel are reminded that they are invited to attend any Enhancement Team meeting.

The Enhancement Team (ET) is starting to receive some very good issues to be addressed by the Team. Issues discussed this week included:

- ☐ Salaried Compensation Questions
- ☐ Should a "Core Curriculum" of Training be Developed
- ☐ T130H Cleanliness
- ☐ Hazardous Waste Receptacle in T130H
- ☐ Ability to Meet Procedure Deadlines
- ☐ Cost Effectiveness of Plant Procedures
- ☐ List of Documents held by Plant Procedures personnel
- ☐ Confusion and complexity in similar procedures

Results and summary of discussions

Issue - Salaried Compensation Questions

Goal - Understand how to best work with Salaried Compensation

Value Added - A better understanding of how Salaried Compensation operates would make our work with them more efficient. Right now managers spend a lot of time on Salaried Compensation issues.

Discussion - The new questions were delivered to Salaried Compensation. Responses have been prepared by Salaried Compensation and the Team is hoping to have Salaried Compensation at the meeting next week. Salaried Compensation advised there is going to be a presentation to all personnel on plantsite. They have prepared a booklet that will be available to all personnel.

Action - Salaried Compensation responses will be conveyed to all personnel as soon as a meeting is held with them.

ENHANCEMENT TEAM (ET) UPDATE

THIS MEETING: January 26, 1993

11:00 - 1:00, T130H Conf. Room

NEXT MEETING: February 2, 1993

11:00 - 1:00, T130H Conf. Room

Page 3 of 5

Discussion - Action item.

Action - Judy Guild has ordered the receptacle for T130H. All personnel will be notified when the receptacle is received and its location.

Issue #ET-013-93 - Procedure Deadlines

"Ability to meet procedure deadlines if 2 weeks are required for Level 1 procedure concurrence, and 1 week for Level 3-4 procedures. We should be decreasing the procedure time, not increasing it."

Goal - Clarify external review process and timelines.

Value Added - Alleviate any undue stress and pressure on the Procedure Writers.

Discussion - Responsible Managers should be the driver on negotiating times for external review. This should not be the responsibility of the writer.

Action - Employees and managers can use the Work Agreement form to ensure that the Responsible Manager is kept informed of procedure deadlines and a letter can be generated to accompany the review package outlining timelines.

Issue #ET-014-93 - Cost Effectiveness of Plant Procedures

"Plant Procedures needs to be more cost effective in development of procedures in order to be competitive with other companies and maintain customer satisfaction."

Goal - Reduce time and cost of developing procedures.

Value Added - A method for reducing procedure development timelines in order to increase cost effectiveness and customer satisfaction.

Discussion - Dennis Dole made a presentation to the Enhancement Team of a proposed method for reducing procedure development timelines. Establish a Procedures Action Center (PAC) with representatives from Plant Procedures, Systems Engineering, Quality Assurance, Health & Safety, Facility Safety Engineering, etc. that would have decision and signature authority. The expect areas of improvement include expedited draft development, more efficient parallel review, better accessibility for comment resolution through PAC members, and time-saving methods through approval process.

Action - The Enhancement Team will discuss this process further in two weeks upon Dennis' return.

Issue - List of Documents/Manuals held by Plant Procedures personnel.

ENHANCEMENT TEAM (ET) UPDATE

THIS MEETING: January 26, 1993
NEXT MEETING: February 2, 1993

11:00 - 1:00, T130H Conf. Room
11:00 - 1:00, T130H Conf. Room

Page 5 of 5

Team Member Listing:

<u>Name</u>	<u>Dep't.</u>	<u>Loc.</u>	<u>Ext.</u>	<u>FAX</u>
H. L. Bluder	TOC	452	3394	4528
D. M. Butler	Tech Writing	460	4600	4589
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J. L. Dunlop	PP&C	T130H	6593	8320
C. S. Getman	TAPG	T130H	6623	8320
G. S. Hyatt	Admin Procedures	T130H	7968	6612
T. J. Kehoe	Plant Procedures	T130H	6562	8320
B. M. Moore	TOC	452	3185	4528
J. B. O'Meara	PP&C	T130H	6615	8320
C. E. Robinson	E&WM Procedures	T130H		8320
R. Schoenberger	TAPG	T130H	6611	8320
H. E. Smith	E&WM Procedures	T130H	6620	8320
P. J. Sosa	Tech Writing	460	2543	4589
C. W. Stone	Admin Procedures	T130H	8295	6612

ENHANCEMENT TEAM (ET) UPDATE

THIS MEETING: September 8, 1993
NEXT MEETING: September 15, 1993

12:00-1:00, T 130H Conf. Room
9:00-12:00, T130H Conf. Room

Page 1 of 4

Notekeeper: Candy Molter Start: 8:00 AM
Moderator: Gary Hunter End: 12:00 PM

All Plant Procedures personnel are reminded that they are invited to attend any Enhancement Team meeting.

Issue discussed at this weeks meeting:

Recommendations provided to J. Perrine by the groups of Plant Procedures in response to ET meeting of August 31, 1993, along with the answers (**Bold & Italic print**) provided by ET members attending ET meeting September 8, 1993:

1. Rotate ET members at shorter intervals (5 weeks) to keep new blood in the ET.

Every Plant Procedures group will decide who represents them and for how long.

2. Have a "white flag" type of situation to allow members to indicate their sense of being overpowered by a managers presence.

There will be a physical white flag available to each member present that can be waved to indicate if a manager is dominating a discussion. (White Flags are graciously being provided by C. Sauerland, TOC)

3. Concentrate analysis of the survey on the written comments, and consider duplicate written comments as serious.

A sub-committee consisting of E. Casey and J. Perrine was formed to look at all comments of the survey and will report back to ET as to their findings.

4. ET needs TQM training as a PMT.

No, ET doesn't need TQM trained. Since ET is not a TQM group yet the training doesn't need to be obtained.

ENHANCEMENT TEAM (ET) UPDATE

THIS MEETING: September 8, 1993

12:00-1:00, T 130H Conf. Room

NEXT MEETING: September 15, 1993

9:00-12:00, T130H Conf. Room

Page 3 of 4

12. Give each issue an Issue Custodian to be the Point of Contact for all reporting on that issue.

Point of contact will be included in "ET Update" and reiterated at staff meetings.

13. When an item is closed, identify who the issue was sent to or what action was taken to cause the issue to be closed.

Originator will agree issue is closed before documented in "ET Update", and the actions taken will be listed.

14. Have the ET moderator in place for 4-6 weeks to help maintain continuity.

No. S. Hyatt and J. Guild are checking on cost for an outside facilitator for at least 1 session. Moderator will continue to rotate each meeting. An information sheet will be passed out at end of ET meetings in which discuss performance of meeting will be discussed and get participants feedback.

15. Have ET meetings outside working hours. Some people just can't participate when regular work is always so backlogged.

No. This was voted out for the time being.

16. Have more all-hands meetings on the porch, where everybody can hear information firsthand.

D. Dole has agreed that there will be a minimum of two all-hands meetings a year. Location and time TBA. The first one will be held before the end of the year.

17. Get the PPG-001, 003, 004 procedure revisions underway quickly.

Yes. A PIT Team will be formed to revise process. In the meantime, we will maintain existing documents. Changes already in process. If any further questions, Point of Contact is Sue Hyatt.

This will not be a ET issue. The PIT team will be formed ASAP.

ENHANCEMENT TEAM (ET) Agenda

THIS MEETING: September 15, 1993

8:00-9:00, T 130H Conf. Room

Page 1 of 2

Notekeeper:
Moderator:

Eileen Casey
Jeff Conyers

Start: 8:00 AM
End: 9:00 PM

Issues to be discussed at this weeks meeting include:

- Improve system of assigning procedure levels.
- Cancellation of ET and individual Staff meetings compromise TQM, team building, and good communications and time-management concepts.
- Procedure Process Improvement.

Issue #ET-029-93A - Improve system of assigning procedure levels.

Cindy

"The current system of assigning procedure levels is confusing and should be more clearly and effectively defined."

Goal - Obtain a more effective system for assigning procedure levels.

Value Added - Improve structure and effectiveness of procedure hierarchy, eliminate confusion, simplify and help minimize proceduralization needs, and thereby help improve cost-effectiveness of procedures.

Discussion - Assigning procedure levels is based on how many AGM or department boundaries are crossed by procedure performers. The document hierarchy procedure indicates that all technicals should be level 4 without addressing fact that they may cross AGM boundaries. Other sources do not dictate that technicals must be level 4. Confusion and conflict also exists as to what level of detail should be in a different procedure levels. It was mentioned that detail has nothing to do with The level of a procedure. The Document hierarchy procedure and the Dictionary need to be in agreement. After a decision is reached, John O'Meara will incorporate a handout of procedure levels for training as guidance.

Action - Issue carried until next meeting.

*PDC
John O'Meara
d. meara*

ENHANCEMENT TEAM (ET) Agenda

THIS MEETING: September 15, 1993

8:00-9:00, T 130H Conf. Room

Page 3 of 2

Value Added-Form results will allow us to better understand how we are doing in the eyes of our customers. MCP&P will dedicate part of an APL to data process repies for all of Plant Procedures, trend data, and issue quarterly reports. Potential data applications include performance indicator reports, self-evaluation data, performance appraisals, and analysis for budget planning.

Discussion- We should be attempting to achieve continuous improvement in our practice, process, and product. One method is to solicit critiques from customers, particularly SME's and Responsible Managers. Are we really providing the service and product that they expect, from their point of view? Are we meeting their needs and requirements? The idea was initiated within MCP&P to use questionnaire as a means to assist us in self-evaluation. We feel that the idea could be applied to all of Plant Procedures.

ENHANCEMENT TEAM (ET) AGENDA

THIS MEETING: September 23, 1993 8:00-9:00, T 130H Conf. Room

Page 1 of 3

Notekeeper:
Moderator:

Erleen Casey
J. B. O'Meara

Start: 8:00 AM
End: 9:00 PM

Issues to be discussed at this weeks meeting include:

- Cancellation of ET and individual Staff meetings compromise TQM, team building, and good communications and time-management concepts.
- Procedure Process Improvement.
- Plant Procedures Issue Form.
- ET Significant Issues.
- Any other new issues.

Issue #ET-042-93 -Cancellation of ET and individual Staff meetings.

" Cancellation of ET and individual Staff meeting compromise TQM, team building, and good communications and time-management concepts. The absence of the Director or group Manager, or "nothing significant to address or report should not negate the opportunity for the other employees to get together."

Goal - Improved communications, an opportunity to address areas that are put on the back burner, and opportunity to interface with our team (s) in many phases that encompass the quality process improvement arena.

Value Added - The opportunity to strengthen the team (s) by interacting with each other on a weekly basis (and knowing, in fact, that you will have this opportunity)

Discussion-It was decided at the last ET meeting that ET would in fact continue meeting and that there would be a requirement of one person from each group for any discussion to take place in ET, and two people were required from each group to enable the entire group to vote. ET needs to be scheduled and held on a weekly basis. ET will have more exposure, because someone is to report at each staff meeting on what happened in the ET meeting that week.

Action: Next week we will have an answer from Sharon Nortnick as to whether or not this issue has been resolved.

ENHANCEMENT TERAM (ET) AGENDA

THIS MEETING: September 23, 1993 8:00-9:00, T 130H Conf. Room

Page 2 of 3

Issue #ET-043-93- Procedure Process Improvement

"We as Plant Procedures Group, must take ownership and control of the procedure process and stop letting other organizations dictate procedure policy to us."

Goal- A quicker more cost effective procedure process.

Value Added- Maintain quality and produce good procedures with much less time and effort (and cost) than it currently takes.

Discussion- We definitely need to start the process for revising the PPGs. Rick is the point of contact for all the procedures, as the Responsible Manager for the new updates. This will not be part of the ET, but a separate group. He has a tentative list of people from nine different organizations who will have representatives to be POCs for their areas.

Action - Since Stan was not at the meeting, Jim Perrine will find out if the initiation of the PMT to revise the procedures will suffice his expectations.

To be discussed thisweek:

Issue #ET-044-93- Plant Procedures should have a vehicle to monitor success or failure in meeting customers needs.

"We should be attempting to achieve continuous improvement in our practice, process, and product."

Goal - To always look for ways to improve our image and our service to our customers.

Value Added- The results from the Plant Procedures Customer Feedback Form will allow us to better understand how we are doing in the eyes of our customers. Potential data applications could include performance indicator reports, self- evaluation data, performance appraisals, and analysis for budget planning.

Discussion- Bob advised we needed to find out from our customers "how are we doing?" This will be done on every procedure. He said that MCP&P will dedicate part of an APL to data process replies for all of Plant Procedures, trend data, and issue quarterly reports. Dennis advised he will provide resources for input and trending of the data. The data will also assist us even with bad comments, because we can show the customer the good comments from other organizations.

Action - This issue will be continued at the next ET meeting, because our one hour was over. Bob asked for comments on the form from everyone.

ENHANCEMENT TERAM (ET) AGENDA

THIS MEETING: September 23, 1993 8:00-9:00, T 130H Conf. Room

Page 3 of 3

This Week's Agenda:

- ☐ Cancellation of ET and individual Staff meetings compromise TQM, team building, and good communications and time-management concepts.
- ☐ Procedure Process Improvement.
- ☐ Plant Procedures Issue Form.
- ☐ ET Significant Issues.
- ☐ Any other new issues.

ENHANCEMENT TEAM (ET) MINUTES

October 7, 1993

Page 1 of 3

Meeting Date/Location: Wednesday, October 6, 1993; Bldg. 460 Conference Room
Time: 8:00 - 9:00 AM
Notekeeper: Erleen Casey
Moderator: Ann Johnson

All Plant Procedures personnel
are reminded that they are invited to
attend and participate in any Enhancement Team (ET) meeting.

Mission Statement:

To provide an open forum in which Plant Procedures personnel can present issues, concerns, or problems that affect themselves or other members of the directorate. To ensure that a formal system exists that through co-participation, management and employees promote communication, address, and in general enhance the quality of life within the Plant Procedures organization.

New Issues

*Mechanism to Identify
Procedure Work
within Plant
Procedures*

- In order to avoid duplication of effort within Plant Procedures, managers will include a list of all working procedures with their Bi-weekly highlights. This list will include the procedure number, title and brief statement of scope. This list will also include changes.
- Managers will distribute the lists to writers, who should check the lists prior to starting a change, revision or a new procedure.
- This method will be tested. If the problem occurs again, we will consider putting some sort of control in Procedure Control to check configuration of procedures within Plant Procedures. **ISSUE IS CLOSED.**

Action Group Update

*Procedure PMT
(R. Schoenberger)*

- The first official meeting of the PMT will be during the week of 10/11.
- Rick is distributing the DOE orders to the team members in preparation.
- Dennis Trumblee will distribute the necessary Quality documentation for the team to review.
- Rick expects that the PITs will be starting within 1 month.

*ET Charter
(R. Schoenberger)*

- The final draft will cover more material and be much more detailed. It will be submitted on 10/13.
- Charter will be submitted for approval by 10/20.

ENHANCEMENT TEAM (ET) MINUTES

October 7, 1993

Page 2 of 3

Procedure Levels (J. Conyers)

- The PIT team has developed definitions for Administrative Procedures and Technical Procedures (see attached) that are closely related to the definitions from the DOE writer's guide. They will implement those definitions now, with DMRs to the PPG procedures.
- The Pit team is considering other options for procedure levels that will be implemented in the revision to the Document Hierarchy Procedure.

Use of an Outside Facilitator (M. Butler)

- On hold until the Charter is complete. A well written charter will help make the meeting moderator's job easier.

Open Issues

Plant Procedures Customer Service Form (B. Oursler) ET-044-93

- The customer service form has been field tested and revised and is available on the Word Processing File Server.
- Bill Holmann will compile an instruction document and distribute it to each of the managers. He will also track and trend the data.
- Beginning immediately, each writer will begin distributing the Customer Service Form to the Responsible Manager and the SME upon completion of a procedure or DMR for change.
- Procedure Control will be able to handle distribution of the form for any writer using their services by 11/1.
- The group expressed strong concern that the forms not be used for Performance Indicators because some of the biggest delays in the procedure development process are outside our organization and not in our control.
- PPG Management feels that the intent is to provide feedback to us so we can continue to improve our services. We should be able to see changes in customer perceptions as we upgrade our services and further streamline the procedure process. Management intends to use the form as a Performance Indicator.
- We will gather data for 60 days and look at the data at that point to determine it's usefulness. **NEXT ACTION 12/1/93**

Use of White Board to Keep Up With Track Teams (S. Hyatt)

- Jim Perrine has entered information on the White board in T130H Conference Room. PPG Personnel are invited to review and comment.
- No further action until the Charter is complete.

Format of ET Minutes (J. O'Meara)

- New format has been further revised and accepted by the ET.
 - MCP&P volunteered to provide the notekeeper for the minutes.
- ISSUE IS CLOSED.**

ENHANCEMENT TEAM (ET) MINUTES

October 7, 1993

Page 3 of 3

Next Meeting

Meeting Date/Location: Wednesday, October 13, 1993; Bldg. T130H
Time: 8:00 - 9:00
Notekeeper: T.P. Bradley
Moderator: Tom Kehoe

Agenda:

- **Introductions**
- **New Issues**
- **Action Group Updates**
 - ET charter action group
 - Procedure Level action group
 - PMT on PPG
 - Use of an Outside Facilitator
- **Open Issues**
 - Plant Procedures Customer Service Form
 - Use of White Board to track teams
- **Self-Evaluation**

ENHANCEMENT TEAM (ET) MINUTES

November 9, 1993

Page 1 of 3

Meeting Date/Location: Wednesday, November 4, 93; T130H Conference Room
Time: 8:00 - 9:00
Note keeper: T. P. Bradley
Moderator: J. O'Meara

**All Plant Procedures personnel
are reminded that they are invited to
attend and participate in any Enhancement Team (ET) meeting.**

Mission Statement:

To provide an open forum in which Plant Procedures personnel can present issues, concerns, or problems that affect themselves or other members of the directorate. To ensure that a formal system exists that through coparticipation, management and employees promote communication, address, and in general enhance the quality of life within the Plant Procedures organization.

New Issues

None

Action Group Update

Procedure PMT
(R. Schoenberger)

- Comments — Continues to meet and work toward improving the procedure process. Several PIT teams formed
 - Minimal Concurrence PIT
 - Administrative & Technical Procedures PIT

Open Issues

*Plant Procedures Customer
Feedback Form,*
ET-044-93

- Comments — None.
- Action — This item is on hold until Dec. 1st.

Cross Reference Data Base
ET-045-93
(Jim Ball)

- Comments — None
- Action — Subcommittee to report progress next week.

ENHANCEMENT TEAM (ET) MINUTES

November 9, 1993

Page 2 of 3

Open Issues (Continued)

Writers as Safety Screeners
ET-046-93
(Dennis Dole)

- Comments — Dennis met with Asa Reed & Ron Boulter. Safety Screeners are amiable and supportive of writers being trained and certified as Qualified Preparers.
- Training class is scheduled for 11-11-93 (Armistice Day)
- We should have several (10-12) people certified in 2 weeks.
- Safety is also supportive of 3 or 4 writers being trained to be Certified Evaluators.
- This should help all sections in the long run, however, Admin. will benefit from being Qualified Preparers. Tech will benefit from Certified Evaluators.
- The basic classes required for Qualified Preparers will probably be offered again in the near future.
- Action — Dennis will report back to the 12-15 ET meeting on how successful the program is. We anticipate closing it out at that time.

Admin. Procedures or
Management Control
Procedures?
ET-047-93

- Correction to last week's minutes. This item was closed
- Action — Referred to the PIT on 10-27 and CLOSED

Outside Facilitator
Mike Butler

- Comments — Bring in either someone from TQM or a management instructor from Denver West, to observe a meeting and then provide feedback on how we are doing. During feedback we will receive tips and training so that we can all become better moderators.
- Action — Mike Butler have observer at next meeting.

Customer work agreement
ET-049-93
Sauerland

- Comments — There was only a small amount of feedback on the draft submitted last week.
- There was considerable discussion of the need for a workable form and how the form was a contract which locked us in to a series of dates. Further discussion of ways to make the form a tool to show when and where the customer failed to meet time lines.
- Moderator polled the team and found that most people in attendance preferred a standardized form with enough flexibility for us to work with it.
- Action — C. R. Sauerland and Hal Bluder to implement ideas from this discussion and report back next week.

Standardized attachment for
WP/Edit/Procedure Control

- [Written follow-up never submitted to notetaker no issue number assigned.]
- Comments — We discussed the possibility of a procedure attachment with the basic info which may be reused each time the procedure is passed to one of the PP&C sections for action. Other specific requests may then be added with a sticky note.
 - Action — O'Meara will submit a sample procedure attachment designed to reduce redundant paperwork.

ENHANCEMENT TEAM (ET) MINUTES

November 9, 1993

Page 3 of 3

Informational Item

The minutes of the ET meeting will be on the TAPG Writer Server in ET Notes as soon they are ready and approved by the moderator.

Next Meeting

Meeting Date/Location: Wednesday, November 10, 1993; Bldg. T130H
Time: 8:00 - 9:00
Note keeper: Pat Bradley
Moderator: Judy Howard

Agenda:

- **Introductions**
- **New Issues**
- **Action Group Updates**
 - Procedure PMT
 - Use of an Outside facilitator
- **Open Issues**
 - Cross reference data base
 - Outside Facilitator
 - Standardized form for PP&C
- **Tabled Issues**
 - Customer feedback form (Dec 1st)
 - Writers as Safety Screeners (Dec 15th)

Copies sent to:

D. L. Dole
H. L. Bluder
D. M. Butler
G. S. Hyatt
C. B. Jones
J. B. O'Meara
D. Muñoz
R. Schoenberger
M. Brown Strattan
TAPG Writer Server

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