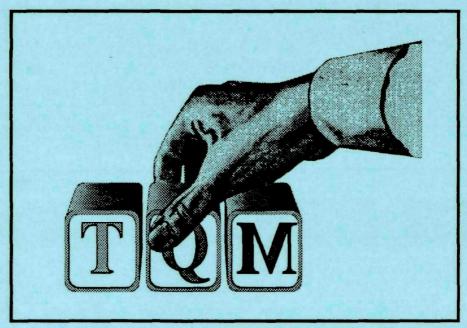
# **EPA Quality Highlights**



"...building blocks to successful environmental management."

January 1993



# EPA Quality Advisory Group Office of Human Resources Management 401 M St., SW Washington, DC, 20460

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# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

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OFFICE OF ADMINISTRATION AND RESOURCES MANAGEMENT

#### Dear Reader:

Sometimes it's difficult for those of us involved in working towards a Total Quality culture at EPA to see the fruits of our labors. We believe that TQM is the right thing to do and we have heard that some people are experiencing some real successes with it. Quite frankly, neither the Quality Advisory Group nor the Agency has done a very good job in communicating these successes. This publication is designed to begin correcting that deficiency.

Early on, it was decided that there would not be a formal system for reporting on Quality Action Team (QAT) projects and outcomes because it would be too reminiscent of all the other mandatory reporting systems that have come and gone during EPA's history. Individual organizations are aware of and can quantify measurable improvements resulting from their TQM initiatives, but this is the first attempt at documenting quality improvements on an Agencywide basis.

There's an old adage that "nothing breeds success like success." I believe that there is a lot of truth to that saying and we all need to see that what we do makes a positive difference. However, if we were to focus on successes only, we would be missing the value of what we can learn from our mistakes -- let's call these "lessons learned." There is a section in this booklet which discusses some of the lessons we in the Quality Advisory Group have learned over the past couple of years.

This booklet encompasses only a small sampling of success stories we have come across; we know there are many more throughout EPA waiting to be reported on. A group of Quality Coordinators is currently developing a process to gather these stories so that we can periodically pull them together and report on them in publications similar to this. In the mean time, we would like your help. If you know of a success story or a lesson learned that others should hear about, please submit them to us using the process provided in Appendix A.

We hope you find this booklet of value. Any suggestions for improvement are welcome, please send them to us as part of responding to our Satisfaction Survey which is included as Appendix F. What you tell us in this survey will help us plan the frequency and content of future communications.

Kerry M. Weiss, Director Quality Advisory Group

# **Contents**

#### I. Lessons Learned

A compilation of some of the lessons the Quality Advisory Group has learned either through first-hand experience or through observation. For the most part, these lessons tend to focus on operational issues that affect the performance of Quality Action Teams. "Big picture" issues such as leadership, quality planning and deployment, communication and other "ingredients" necessary for the successful implementation of TQM are touched on lightly. We hope to address these important issues in future communications and possibly through offering advanced training opportunities. The items presented in this section are in random sequence and are provided as general guidance and should not be taken as absolutes that hold true in all situations.

#### II. Successes

These are a few of the stories the QAG has learned about. A majority of the reported successes are those that have been completed, implemented and have quantifiable results; however, we've also included a few particularly promising projects that are near completion and some statistics about our TQM training effort. Within those three categories the stories appear in random order. If you wish to learn more about any of these, the contact's name and phone number are included.

# III. Appendices

- A. How to Submit a Success Story or Lesson Learned
- B. Guidelines for Chartering a Quality Action Team
- C. EPA Quality Coordinators
- D. Stages of Team Development
- E. Sample Ground Rules
- F. Satisfaction Survey

# I. Lessons Learned

#### · Selecting those first few projects . . .

After going through quality training it is often tempting to ask organization staff for ideas on how to improve. Inevitably, a number of the ideas relate to organization culture and what might be called "social issues." Issues such as poor communications among staff, poor management, insufficient resources, etc. are very difficult to apply quality problem-solving approaches to, especially when you're new at TQM. While it's OK to ask the staff for ideas on where to apply TQM, there is nothing wrong with senior management choosing the projects to work on. In any case, for the first few applications of TQM, try to select projects based on the following checklist:

It's an existing process

The process can be flowcharted

Specific start and stop points in the process can be identified

You control the process (or most of it)

The process causes sufficient "pain" that makes it worth the effort

A process owner can be identified

You'll know improvement if you see it (e.g., reduced cycle time, lower resource investment, fewer complaints, etc.)

You can identify the customer(s) of the process

The process can be studied in a relatively short period of time (2 -3 months perhaps)

#### • Keep Quality Action Teams small . . .

With TQM's tenants of "total involvement" and "customer focus" we sometimes think that for a QAT to be effective it should include many people, including customers. This is not the case, in fact, too large a team can yield less impressive results than assigning the project to an individual. Current literature suggests that a team of five is the most effective. Experience demonstrates that groups with ten or more people tend not to reach consensus very well and often fail to really come together as a high performing team. It's the team's responsibility to involve others (customers included) by collecting data from them and by consciously working to build support for the effort and for the recommendations.

### • Managers need to be involved in choosing the projects . . .

Management's role includes defining what is the "right" thing to do. This should not be delegated, but we have seen many examples where it has been and as a result, the Quality Action Team failed to live up to expectations. In summary, management's role prior to establishing a QAT is to: (1) Identify improvement opportunities; (2) Identify key customers and suppliers; (3) Establish agreed-upon requirements; and (4) Identify the gaps. Once the gaps have been identified, then management knows enough to decide whether further action is warranted and who would be best suited to working on the QAT.

## · Begin with the end in mind . . .

It's OK to set a goal. Sometimes we think TQM calls for all decisions to be made by staff with management's role being one of "rubber-stamping" those decisions. This is not the case. Giving a QAT a goal to shoot for can be very beneficial. If managers have been involved in selecting a project (as described in the previous paragraph) then they need to articulate the desired outcome. The focus should be on one or two major outcomes. These outcomes are <u>not</u> necessarily stated in numerical terms, but can be described using words like "increase," "decrease" or "sharply decrease." Use numerical goals with great caution; when they are used, they must never be used as a measure of team performance. It's also important not to tell the QAT <u>how</u> to reach the goal.

#### • Put it in writing . . .

It is important that the QAT have a clear sense of what the parameters of the project are, what resources are available, when they should check in with management, how much time they have to work on the project and a number of other factors that will impact how well the team performs. The way to do this is to charter the team as soon as it is "commissioned." This chartering process often involves some "give and take" with the team to come to agreement on a final charter. Appendix B provides guidance on developing a team charter.

#### • Patience please . . .

Unless team members have worked together before, it's going to take some time for the members to really perform as a team and start to produce. Management needs to give them sufficient time to "get it together." Teams generally go through four phases: form, storm, norm and perform. Even when a group reaches the "perform" stage, it may slip back to a less mature stage during times of high stress; this is normal. Appendix D provides detailed information about these stages of team development.

#### • Special QAT roles . . .

Effective QATs generally have a Team Leader and a Quality Advisor along with the other team members. These two people have very specific and distinct responsibilities which makes it difficult and risky to have one person serve in both roles. Their roles are:

- •• Team Leader: The Team Leader is normally a more senior level person (may or may not be a supervisor or manager) who has day-to-day involvement with the process under review. This person's job is to provide direction to the team, serve as a communication link with management, attain resources when needed, track team progress, make assignments and plan (with the Quality Advisor) team meetings.
- •• Quality Advisor: The Quality Advisor (often called a "Team Facilitator") need not have any substantive knowledge of the process under review; in fact, he/she can be from another organization. It is important that the team believe in the Quality Advisor's neutrality. This person is responsible for facilitating the team, making sure the proper tools are used, keeping the team on track, helping team members reach consensus and working with the Team Leader to plan meetings.

NOTE: The Quality Advisory Group is working on a course to teach team leadership and facilitation skills. We hope to have this course available in late winter or early spring. Currently, there is no "Quality Advisor Cadre" to draw on so if you need a Quality Advisor we suggest you look for someone who is a certified TQM course facilitator and has strong interpersonal skills. Contact your Quality Coordinator for assistance in identifying potential Quality Advisors (see Appendix C).

#### • Prep time is important . . .

Each QAT meeting needs to be carefully planned. Normally, the team leader and quality advisor should spend at least as much time planning the meeting as the expected length of the meeting. The planning should result in a detailed agenda and meeting goals.

#### · Rules of the road . . .

Effective QATs have agreed upon rules that govern their actions -- these are commonly referred to as "ground rules." To assure ownership, the team must develop and adopt their own rules rather than simply use a set of "off-the-shelf" rules. Ground rules typically address such topics as: how consensus is reached, the "code of conduct" among team members, responsibilities between meetings, attendance at meetings, how agendas are developed, enforcement of rules, documentation of meetings and other factors that the group thinks important to support team performance. Ground rules are usually developed and adopted in the first QAT meeting. Appendix E is a copy of the ground rules the Deputy Leadership Team abides by.

#### • Ready, Fire, Aim . . .

All too often in our rush to complete a project, we skip crucial steps. In particular, we have noticed that some QATs don't spend sufficient time collecting and analyzing the data necessary to develop sound recommendations. Instead of following EPA's problem-solving process of "Focus, Analyze, Develop, Execute" all the way through, many teams tend to jump from "Focus" to the later stages of "Develop." Real break-through changes rarely result from teams that take short cuts. In addition, there tends to be heavy reliance on brainstorming and multivoting. While these two tools are valuable and have their place, few process reviews will be really successful without including the tools of flowcharting and Pareto analysis. We encourage you to go back to your training material and review the FADE problem-solving process and apply it rigorously -- it will be well worth the effort.

## • Program development and planning, the right tools for the right job . . .

Much of our work in EPA involves developing new programs and systems and management planning (e.g., strategic planning). Although the traditional problem-solving tools (i.e., the ones you learned in quality training) can be somewhat helpful in these efforts, they are not the best tools to use. There is a second generation of tools that are much more useful in development and planning efforts, they are called the "Seven Management and Planning Tools." If you're interested in learning more about these tools, get a copy of "The Memory Jogger Plus+" by Michael Brassard. You can order it from GOAL/QPC, 13 Branch Street, Methuen, MA, 01844, phone number 508-685-3900.

#### • Individual initiative . . .

TQM is not the exclusive realm of Quality Action Teams. Individuals can make a big difference simply by keeping a few key principles in mind, they are:

- •• Decision By Fact: Whenever possible, back up your decisions and suggestions with factual information.
- •• Continuous Improvement: Everything can be improved. Our challenge is to identify areas where improvement efforts can provide the largest return (Pareto analysis) and then take action to make improvements.
- •• Focus on the Customer: No single action is more important than getting a clear sense of what our customer wants and then acting on that knowledge. Take the time to identify your customers (they may be working at the desk next to you or right across the hall) and ask them the three key questions you learned in your quality training course: (1) What do you need from me? (2) What do you do with what I give you? and finally (3) What are the gaps between what you need and what I give you? Engage your suppliers in a similar dialogue. Develop a habit of keeping in touch with your customers and suppliers and you'll be surprised by how much the quality of your work will improve.

#### • Celebrate successes, even the little ones . . .

We tend to wait until the end of a successful project to acknowledge the good work we've done. Why wait until the end? Every successful effort is made up of a number of smaller steps which need to be done well. Celebrate the completion of those smaller steps; it will help motivate the team and provide a sense of progress. The celebration may be as simple as a round of applause. Use your imagination.

#### • Share the wealth and steal shamelessly . . .

The biggest improvements from TQM come from improvements that can be replicated in other organizations. The next section of this booklet lists some success stories — there's a good chance that you'll see at least one improvement in there that can be applied in your organization. Don't be afraid to take improvements made by others and custom-tailor them to help improve processes in your organization (this is a form of bench marking). In addition, we encourage you inform us of your improvements so that others can take advantage of them (see Appendix A).

#### • Learn from mistakes . . .

One of the hallmarks of a quality organization is that it views mistakes as opportunities. However, they can only become opportunities if we are willing to acknowledge them, analyze what went wrong and build the lessons learned into future actions. Much of the material in this section is drawn from mistakes that either we have been directly involved in or have witnessed. We will all mess up from time-to-time, let's take full advantage of our mistakes so that they don't occur twice. Please see Appendix A on how to share your lessons learned with a broader audience.

#### • Quality is real work . . .

During the early stages of implementing TQM many organizations treat it as an addon to the normal work of an organization. Teams are encouraged to meet over lunch, work on weekends and otherwise focus on quality after the regular work is under control. Although this attitude is to be expected, if left unchecked, it will ultimately lead to lower morale, higher burn-out and a lack of true progress with quality. We all need to incorporate quality techniques and philosophy into everything we do -- if a project is worth doing, it's worth doing well. When setting up a QAT, make sure to adjust priorities and expectations so that the team has sufficient "on-line" time to make progress in its efforts.

#### • Set a vision . . .

How does an organization know where it's going or what success looks like if it doesn't have an agreed to destination? Each organization should have a vision statement which succinctly states what it will look like or how it will be viewed when it's operating at peak performance. For example: We will be acknowledged by our peers as the best information management support office in Government. or Our customers will look to us as their premiere source for environmental compliance assistance. Generally, the management of an organization will draft the vision statement and then work to build consensus and enthusiasm for it with the organization's staff. Once a vision is in place, you can check work and initiatives to see whether they support your organization's movement towards that vision, if not, you have reason to question whether the activity is worthwhile.

# II. Successes

### **Completed Improvement Efforts**

• Superfund Accelerated Cleanup Model: At the beginning of FY '92, EPA was strongly criticized for the slow pace of Superfund "completions" (63 completions during 1980 - 1991) and for high overhead charges by our cleanup contractors. Headquarters and regional teams used quality principles to simplify cleanup procedures and strengthen contractor performance. (Contact: Henry Longest, OSWER, 260-2180)

Results		
	1991	1992
Cumulative completions:	63	149
% overhead contractor charges	30-40%	14%

• Publication Management: EPA produces nearly 10,000 publications and information packets. Copies of these materials are frequently provided to interested citizens with an average monthly distribution of over a half a million. Publications used to be housed by their originators. This led to much public confusion and frustration (a librarian's convention featured a paper entitled "How to get a publication from EPA with 18 phone calls or less"). Using quality principles, a team identified practical solutions to the problems associated with publication management. Based on the team's work, distribution has been centralized at the National Center for Environmental Publications and Information in Cincinnati and the entire process has been streamlined. (Contact: William Henderson, OARM, 513-569-7910))

Re	sults	
	<u> 1991</u>	1992
Average cycle time	60 days	2 days
Contact points	multiple	one

• Permits Cycle Time Reduction: In 1990, internal and external customers of the RCRA permits Branch were dissatisfied with the lengthy time periods it took to finalize RCRA/HSWA permits. A quality action team worked to standardize the process and created a "paperless permit" which is run on personal computers. In addition to reducing cycle time, this improvement has also allowed staff to concentrate on permit quality, customer alignment, community relations, document filing and continuous improvement. (Contact: Arnold Ondarza, Region 6, 214-655-6790)

<u>Results</u>		
	<u> 1991</u>	<u> 1992</u>
Average number of days to finalize		
RCRA/HSWA permits	69	15

• RCRA Report Reduction: Region 5 routinely was sending each of its states voluminous RCRA computerized status reports every quarter. As an individual quality initiative, a secretary questioned if anyone ever used these printouts. She checked with her state "customers" and confirmed that indeed no one read these reports. Empowered by her supervisor, she now sends them precisely what they want on just a few pages. (Contact: Kathy Gunn, Region 5, 312-353-3405)

# Results Savings of 90,000 pages a year.

• Drinking Water Enforcement Procedure Streamlining: Region 10 was concerned that too much time elapsed between initiation and issuance of drinking water enforcement actions. Using quality principles, it was determined that excessive time was consumed by cumbersome procedures and guidance, the need to verify and correct inaccurate data, too many reviewers and concurrences, and mistakes leading to rework. The notice of violation (NOV) format was simplified dramatically and no longer docketed; NOVs are now based on the Federal Reporting Data Systems and no longer dependent on the receipt of state files; and the Office of Region Counsel no longer reviews or concurs on every administrative order since they approved the standard format and procedure. (Contact: Jan Hastings, Region 10, 206-553-8414)

# Results Cycle time reduced by 50 - 75%.

• Reducing Freedom of Information Act Appeals: In January 1991, the Office of General Counsel began Operation FADE (Operation FOIA Appeals Declining Effort) with an inventory of 489 FOIA appeals pending resolution. Operation FADE was an evolving concept which had been influenced by staff suggestions, TQM training and a commitment by involved staff to its goal of reducing the number of appeals. (Contact: Andrew Moran, OGC, 260-5460)

	<u>Results</u> Jan. 1991	Dec. 1991	Apr. 1992
Inventory of FOIA Appeals	489	326	275

• Phoning Made Easier: An Office of Emergency and Remedial Response QAT looked into the issue where support staff often find themselves without the means to accurately refer incoming telephone calls. Communication between EPA support staff and callers (customers) had been impeded by the lack of necessary tools and information to successfully refer questions regarding the Superfund program. This can leave both the caller and EPA employee feeling frustrated. OERR has traditionally issued telephone lists and organizational charts that contain an employee's name and telephone number. Consequently, difficulty arose in translating Superfund acronyms and technical information into lay terms and tracking down the appropriate individual. The QAT suggested the creation of a telephone referral guide based on functional areas of responsibility and an emphasis on maintaining a helpful attitude and providing the service that a caller expects. The guide is intended to support the goal of 100% accuracy of referrals on the first call.

The telephone referral guide is a living document that is durable and provides space for most frequently used telephone numbers. (Contact: Juanita Standifer, OERR, 260-6691)

#### Results

Much higher rate of correct referrals on the first customer call.

• Cost Recovery Streamlining: The length of time needed to prepare cost packages results in a reduced quality of packages produced in any time period. This makes it difficult to obtain a package by the required date and results in involved offices having to plan cost recovery efforts earlier in the fiscal year. Using quality principles, a QAT developed regional policies and procedures, trained participants and automated time sheets. (Contact: Lance Richman, Region 2, 212-264-6695)

#### Results

Cost packages can be produced in a shorter period of time.

Production of an increased number of packages within any given time period.

Increased cost recovery via litigation and settlements.

Easier to meet statute of limitations dates.

Greater number of referrals to Department of Justice.

Enhanced working relations among involved parties.

• Stretching State Grant Money: Using quality principles, members of Region 10's Environmental Services Division launched a project designed to eliminate waste and promote greater efficiency in the Region's air monitoring program. An important milestone was reached when the team received Headquarter's approval for waiving certain monitoring requirements that had little merit from the perspective of public health and environmental protection. Not only has this waiver saved the states grant funds, but it greatly enhanced Region 10's partnerships with the states it serves. (Contact: Jon Schweiss, Region 10, 206-553-1690)

#### Results

State grantees are saving an estimated \$100,000 per year.

• Targeted Permit Oversight: Traditionally, the Region 3 reviewed 100% of major permits issued by the State in Pennsylvania. The state had been delegated responsibility for issuing permits for 13 years and the Region questioned whether this 100% review was really necessary. A QAT looked into this and recommended that specific targeted categories be reviewed instead of the entire permit. This limited review still achieves up to 94% of the environmental benefit as results from a total review. With the Regional resources saved, more effort is invested in other, more pressing, environmental initiatives, such as biomonitoring, stormwater and sludge. (Contact: Robert Koroncai, Region 3, 215-597-6541)

#### Results

80% reduction in staff time applied to permit review process.

• Pretreatment Permits Streamlining: Region 6 was concerned that it takes too long and there are too many delays in getting modification approvals from the Region incorporated into cities' pretreatment permits. A QAT was established to look at these issues and found that poor communications were primarily responsible for the delays. A permittee checklist developed by the QAT ensures the modification packages are complete before submittal, along with instructions that partial submittals will be returned to the permittee for correct completion. The new procedures provide for timely, sound pretreatment program updates while freeing staff time to focus on the actual environmental impacts sustained from industrial user discharges to Publicly Owned Treatment Works or water quality standards violations. (Contact: Lee Bohme, Region 6, 214-655-7175)

#### **Results**

A	<u>Before</u>	<u>After</u>
Average modification review cycle time	3 years	6 months

• EPA's Information Products for the Public: The Office of Communications, Education and Public Affairs led an Agencywide QAT to develop a process for preventing embarrassing information from being provided (by EPA) to the public. The team invested considerable work into prevention of mistakes by developing a detailed guide on how to produce products for the public, by providing training and consulting services to Agency offices and by setting up a fast-turnaround review process for final drafts. (Contact: Helga Butler, OA, 260-4724)

Results	1991	1992
Publications with major substantive	<u> </u>	
inaccuracies and product duplications	6	0

• Personnel Services Made Easier: EPA's Las Vegas Human Resources Office has been concerned about customer satisfaction for a long time. Some time ago, they began to measure customer satisfaction after every personnel action by having the customer complete a short satisfaction form. Based on customer feedback, face-to-face interaction with customers and the application of quality principles, the HR staff created several easy to use booklets to help managers deal with common, but sometimes difficult personnel situations. Two of those popular booklets include "Recruitment Made E-Zer!" and "Dealing With A Problem Employee." The Las Vegas HR staff continues to monitor customer satisfaction even though they already enjoy high marks. (Contact: Art Sandoval, OARM, 312-886-2407)

#### **Customer Satisfaction Results**

	Report	Report
	Period 1	Period 2
Satisfaction with timeliness of		
personnel actions	90.4%	95%
Satisfaction with quality of HR services	94%	94.7%
Satisfaction with being kept informed		
of personnel action status	85.5%	90.2%

• Paying On Time: A QAT in the National Contract Payment Division (NCPD) in OARM reduced late payments and interest payments to vendors and increased savings by obtaining vendor discounts for prompt payment of invoices. NCPD has been recognized for its accomplishments by receiving the President's Council on Management Improvement Quality Award. (Contact: Willis Greenstreet, OARM, 919-541-2258)

# Results Over \$600,000 saved in a two-year period.

• Training Made Easier: A QAT in the EPA Training Institute was concerned that the process used for applying for training courses was overly burdensome on the customers. With the application of TQM principles, the QAT managed to streamline the process significantly. (Contact: Renelle Rae, OARM, 260-3297)

<u>Results</u>		
	<u>Before</u>	<u>After</u>
Number of steps to complete training		
form for external training	22	11
Number of steps to apply for in-house		
training	10	1

• Reducing Advice of Allowance (AOA) Cycle Time: A Region 5 QAT addressed the issue of flexible funding for Advice of Allowance actions. The QAT proposed and received management approval for the following improvements: eliminate duplication of effort; use concurrent rather than a sequential approval process; use electronic mail for Superfund Comprehensive Accomplishment Plan amendments; and placement of more trust in the "experts." (Contact: Jody Troud, Region 5, 312-353-9773)

#### Results

	<u>Before</u>	<u>After</u>
Average AOA cycle time	33.5 days	5 days
Reduction of reprogramming actions	NA.	82%
Region 5 FTE reduction	NA.	.7
OSWER FTE reduction	NA	1 - 2

• Water Program Exceeds Enforcement Targets: A Region 3 QAT was formed to decrease the time and resources necessary to issue enforcement action against water systems violators. The team focused on eliminating rework which prevented enforcement actions from getting "out the door" in a timely fashion. At the time, the Drinking Water Program was meeting only 80% of its target for issuing enforcement actions. The team implemented a number of improvements which streamlined the process greatly. (Contact: Al Morris, Region 3, 215-597-9410)

#### Results

Average final order issuance cycle time	<u>Before</u> 62 days	<u>After</u> 6 days
Average % enforcement actions target met	80%	150%

• Using TQM Techniques to Manage Meetings: Several EPA organizations have had great success in using quality tools and techniques to plan and facilitate meetings with external customers. Some of the following remarks from EPA customers are illustrative:

"The meeting and presentation was different from meetings in the past . . . . it was refreshing and we left with good feelings about the task ahead and with a positive attitude."

"I really felt that EPA was interested in what we had to say. I'll be speaking with my colleagues to encourage them to work with the Agency."

"I found the meeting to be well organized, open, and productive. . . . During the meeting there was an earnest attempt to get all comments and ideas on the table."

#### Meetings Referenced

- •• Region 1 meeting with New Hampshire Dept. of Agriculture. (Contact: Stephen Perkins, Region 1, 617-565-3355)
- •• Grants Administrative Division meeting with American Indian representatives. (Contact: Gary Katz, OARM, 260-5240)
  - •• EPA Watershed '93 Conference. (Contact: Louise Wise, OW, 260-7166)
- The Tissue Issue: Region 5's Office of Superfund which has 21 organizational units established a Tissue Issue QAT. Data was collected on the amount of correspondence generated in the office and the usefulness of carbon copies ("tissues"). The data revealed that most tissue copies are not looked at again. Approximately 45 pieces of correspondence are generated each month with an average of two pages and four tissues each. Each secretary spends an average of 5 minutes running off and assembling tissues, and another 5 minutes sorting/filing tissues after correspondence is signed. The office instituted procedures to eliminate all tissues. (Contact: Kathy Gunn, Region 5, 312-353-3405)

### **Results**

An average savings of over 90,000 tissues per year. Approximately 9 FTE of staff-hours saved per year.

• Improvement in LIDAR Reliability: The Office of Enforcement's National Enforcement Investigations Center (NEIC) in Denver used quality principles and a problem-solving team to identify and execute solutions to problems that were impacting the reliability of the LIDAR system. The LIDAR, a truck-mounted instrument for measuring smoke opacity from industrial point sources, was experiencing operational problems. After using quality principles to identify the root causes of laser malfunction and research alternative solutions, the team recommended laser refurbishment over replacement and specified areas to be upgraded. (Contact: Gene Lubieniecki, OE-NEIC, 303-236-5124)

Results
\$30,000 saved in equipment costs.

LIDAR reliability enhanced quicker than expected.

### Partnering With Our Customers . . .

• State Capacity Building - Region 7: Early in 1992, Region 7 asked Missouri to consider participating in a QAT streamlining effort to speed up funding of leaking underground storage tank cleanups. The state accepted stating "it is much more palatable to focus on what we can do better than to focus on all that is wrong or inadequate." In addition to receiving the Governor's Award for Productivity Improvement, the group substantially reduced the funding cycle time. (Contact: Charles Hensley, Region 7, 913-551-7519))

Results

Funding cycle time 1991 1992 2 weeks

• Tennessee Streamlines UST Corrective Action Process - Region 4: With EPA encouragement to apply TQM to Tennessee's environmental protection processes, state employees used quality principles to make significant improvements to the state's UST Corrective Action Process. (Contact: David Hamnett, OSWER, 308-8880)

Results	<u>Before</u>	After
Average cycle time to produce cleanup plan Staff hour savings	2 years NA	4 months 9,000 (4.3 FTE)

• Illinois Streamlines UST Cleanup Permits Issuance Process - Region 5: With the help of Region 5's TQM-trained UST staff, the Illinois State Fire Marshal's office looked at its process for issuing leaking underground storage tanks cleanup permits. (Contact: Kathy Gunn, Region 5, 312-353-3405)

#### Results

	<u>Before</u>	<u>After</u>
Average permit issuance cycle time	8-9 weeks	2.5 weeks

• Texas Error-Free Data, Region 6: The Texas Water Commission (TWC) had too many errors in data submitted by hazardous waste handlers and too much time taken from data submission to computer entry. With technical and grant assistance from Region 6, a TWC team made recommendations to reduce the errors in data submission by hazardous waste handlers and the time required from data submission to computer entry. The recommendations included developing an electronic bulletin board for reporting, using an optical scanner and developing an education/outreach program. (Contact: Allyn Davis, Region 6, 214-655-6700)

Results
An estimated savings of \$43,000 per year.

• Minnesota LUST Program Improvements - Region 5: In cooperation with Region 5, the Minnesota Pollution Control Agency (MPCA) determined that a mounting number of underground storage tank leaks and huge amounts of money required to perform corrective actions led to an unexpected increase in workload that could not be handled by the current process. MPCA first brought staff and management together to form quality teams to choose the top problem areas that presented glaring opportunities for program improvement and work on them. Staff redesigned the program and changes were made within MPCA with a good deal of success. The workload is now manageable as the number of sites MPCA is able to process has dramatically increased. Program performance is continuously measured and talking with consultants and contractors is common practice. A good rapport with the regulated community has also been established. (Contact: Kathy Gunn, Region 5, 312-353-3405)

#### Results

A	<u>1988</u>	<u>1991</u>
Average elapsed time to approve a corrective action design	546 days	82 days

• California RCRA Authorization Project - Region 9: On August 1, 1992, EPA authorized the State of California to operate the RCRA program. In order to assure a successful transfer of responsibility for this program, Region 9 initiated a joint implementation planning effort with the state. Working in equal partnership, EPA and state staff used quality principles to: (1) Identify the most critical issues related to authorization; (2) Develop solutions to resolve these issues; and (3) Prepare a transition plan to implement the recommendations. In addition to effecting a smooth transfer of RCRA authority, this joint project created an atmosphere of open and complete communication between EPA and California. (Contact: Tom Webb, Region 9, 415-744-1631)

#### Results

Development of a comprehensive transition plan.

Clarification of California's new roles and responsibilities.

Early identification and solutions to potential barriers to implementation.

Improved working relationship between Region 9 and California.

# Improvement Efforts in Process

The Deputy Leadership Team and the Quality Improvement Board have commissioned a number of improvement efforts directed at Agency core processes. A core process is one that directly impacts virtually every organization within the Agency. Over the past months, EPA has begun to apply quality principles to a number of these processes with the prospect of making substantial improvements to them. Some of these efforts include:

• Regulatory Development: The goal of this initiative is to reduce cycle time and improve the consensus process for Agencywide decision making. (Contact: Wendy Cleland-Hamnet, OPPE, 260-4335)

- Human Resources Alignment: This effort consists of four separate areas of focus: (1) Management development; (2) Position classification; (3) Performance management; and (4) Rewards and recognition. The overall purpose is to streamline operations and to align personnel system to TQM principles and the core values of the Agency. (Contact: Ken Wright, OARM, 260-3271)
- Customer Strategy, Track II: The purpose of this project is to design, develop and implement a systematic customer satisfaction system which will be used to measure the effectiveness of the Agency's products and services. (Contact: Stan Laskowski, Region 3, 215-597-9812)
- Environmental Goals: Continuing a project originally staffed by a task force of office directors, the DLT is overseeing an initiative to design, develop and implement a new goal oriented measurement system which will be used to measure the effectiveness of our environmental programs. (Contact: Wendy Cleland-Hamnet, OPPE, 260-4335)
- Permitting Process: The purpose of this effort is to design a streamlined approach for issuing the various types of environmental permits that EPA and states are responsible for. Currently, all 10 regions and two program offices have demonstration projects underway. (Contact: Pam Herman, OPPE, 260-4335)

### **TOM Training**

EPA has made significant progress in educating its work force to enable it to apply the quality methodology to the work of the Agency. Some of the major accomplishments in this area include:

- Current Curriculum: EPA has two courses that make up its current TQM training curriculum; one course is for managers and Agency leaders and the other is for the remainder of the EPA population. Rollout of these courses began in May of 1991 and since then nearly 8,000 people have gone through them. Within the first 6 months of course rollout, over 90% of the senior mangers took the Executive Quality Course which was instrumental in creating the necessary conditions for changing the work culture of the Agency. (Contact: Quality Advisory Group, 260-6241)
- State Outreach: EPA's quality courses have been so successful that several state environmental organizations are planning to use them as their core quality courses. Some states have even had facilitators trained to deliver the courses. In a very real way, this contributes to the Agencywide emphasis on building state capacity. (Contact: Quality Advisory Group, 260-6241)
- Facilitator Development: Critical to the success of the TQM training effort was the development of a team of respected Agency managers and employees who would actually deliver the courses. The decision was made early on to use EPA employees rather than contractors to deliver the training because the training would be better received from our own people and it could be delivered much more cost-effectively. Since the inception of the quality courses, more people have been trained to deliver them than for any other courses in Agency history. At last count, 327 EPA employees have been successfully developed as TQM Training Facilitators. Not only have these people done an

exemplary job of delivering the training, but they have also served as role models in their own organizations as quality leaders. (Contact: Quality Advisory Group, 260-6241)

• New Course Development: The very success of the core quality courses has made it clear that advanced training is required to support the continued expansion of EPA's quality initiative. Over the past several months, work has been underway on the development of two additional courses; one to teach people how to lead and facilitate teams and the other to give supervisors and managers the necessary knowledges and skills to support team work. (Contact: Quality Advisory Group, 260-6241)

# How to Submit a Success Story or Lesson Learned

- 1. Indicate whether your submission is a "Success Story" or "Lesson Learned."
- 2. If it's a Success Story, provide succinct information addressing the following:
  - a. Project Title
  - b. Key Contact (name, organization, phone number)
  - c. Problem Statement
  - d. Process Used (brief description of analytical approach and TQM tools used)
  - e. Results (quantify if possible, e.g., cycle time reduction, dollars/FTE saved, etc.)
  - f. Key Customer(s)
  - g. Team Members (designate which members served as team leader and facilitator)
- 3. It it's a Lesson Learned, please address the following:
  - a. Brief Background Statement
  - b. What Was Learned
  - c. Advice to Others Based on What You Learned
- 4. Return Success Story or Lesson Learned by:

a. FAX: Quality Advisory Group - "Stories"

202-260-3885

b. Interoffice Mail: Quality Advisory Group - "Stories"

(PM-224)

c. Mail: U.S. EPA (PM-224)

Quality Advisory Group - "Stories"

401 M St., SW

Washington, DC 20460

**NOTE:** This process is subject to change based on the work of a Quality Coordinator Process Development Team.

# Guide for Chartering a Quality Action Team

Steering Committee Chair(s):

**Steering Committee Members:** 

Team Leader:

**Team Members:** 

Facilitator:

Desired Result: In this section, what we want to do is:

1. Clarify expectations

2. Identify key needs to meet

3. Establish time frames/schedule checkpoints

4. Set priorities

5. Make mutual commitments

Guidelines: In this section, what we want to do is:

- 1. Agree on the principles and values of the task
- 2. Identify the "No-No's" failure paths

3. Identify examples of success

- 4. Identify resources (people, budget, space, etc.)
- 5. Identify policies and procedures that should be observed

Resources: In this section, what we want to do is:

- 1. Agree on the financial, human, and technical resources available to the group
- 2. Agree on organizational and systems support
- 3. Agree on communications style, content, frequency
- 4. Confirm the role of Steering Group as "coach not cop"

### Accountability: In this section, what we want to do is:

- 1. Agree on standards of performance -- how the workgroup will be measured
- 2. Agree on how results will be evaluated
- 3. Agree on when and to whom to report progress and difficulties

## Consequences: In this section, what we want to do is:

- 1. Understand the consequences of success or failure to the individual, workgroup, and organization
- 2. Identify rewards and sanctions -- intrinsic and extrinsic

# **Quality Coordinators**

Name	Org.	Phone	FAX	Email Box	Mail Stop	Room
Butler, Helga	OA	202-260-4724	202-260-4852		A101	1223WT
Delaney, Maureen	OAR	202-260-7431	202-260-5155	6000	ANR443	935WT
Pritz, Michael	OARM	202-260-1101	202-260-9887	30883	PM208	G014 NE
Vacant	OCLA					
Esanu, Diane	OCPA	202-260-2190	202-260-3522		A107	311WT
Heiss, Bob	OE	202-260-8786	202-260-7839		LE 133	112 NE
Edwards, Eudora	OGC	202-260-8070	202-260-0020		LE130M	3608-I-I
Fidler, Joan	OIA	202-260-0076	202-260-9653	3568	A106	1133WT
Maloney, Tom	OIG	202-260-2234	202-260-6976	2069	A109	314NE
Herman, Pam	OPPE	202-260-4407	202-260-0275		PM219	1013 WT
Hooven, Tom	OPTS	202-260-2906	202-260-1847	7416	TS788	635-AET
Alapas, George	ORD	202-260-7500	202-260-0552	8087	RD674	310NE
Fill, Gerald	ORO&SLR	202-260-4719	202-260-2159			
Allinson, Nancy	OSWER	202-260-5615	202-260-3527		OS130	315SE
Alter, John	ow	202-260-4315	202-260-7926		WH-556	E10008
Perkins, Stephen	Region 1	617-565-3355	617-565-3346	9110	PAA	
Sommerman, Alan	Region 2	212-264-0016				
Naylor, Wayne	Region 3	215-597-7808	215-597-8255		3DA00	
Koroma, Lila	Region 4	404-347-3486	404-347-0199		Personnel	
Gunn, Kathy	Region 5	312-353-3405	312-353-1517		МР-4Ј	
Rhea, William	Region 6	214-655-2160	214-655-7257	9600	6AT	13015
Hensley, Charles	Region 7	913-551-7519	913-551-7064	9780		
Shank, Pam	Region 8	303-293-1404	303-293-1647		8PM-HR	
Tudisco, Becky	Region 9	415-744-1533	415-744-1476	99124	P-6	
Ward, Micheline	Region 10	206-553-0309	206-553-6647	9020	MD141	

# Stages of Team Development

- Form testing and dependence
- Storm conflict
- Norm cohesion
- Perform capability

# STAGES OF TEAM DEVELOPMENT

What's Happening	FORM	STORM	NORM	PERFORM			
INFANCY MATURITY							
GOAL -	"Count me in"	"We're all in charge"	"Speak your mind"	"Damn, we're good!"			
TASK	Orientation	Organization	Communication	Collaboration			
CONCERN	Inclusion	Control	Openness	Success			
PARTICIPATION	Uneven Tentative	Active Influence Cliques develop	More balanced Encouraging others	Balanced Supportive			
TRUST	Feedback & disclosure absent Minimal risk taking	Hidden agendas sensed Testing limits Limited candor	Confiding in each other Patching up old conflicts Personal sharing	Experimentation Risk taking Candor Divide up tasks			
FLEXIBILITY	Easily swayed Cautious Quiet defiance	Low tolerance for others' input Conflicting direction Choosing sides Bickering	Active listening Willing to let go	Build on individual strengths Go with flow			
HANDLING DIFFERENCES	Differences played down	Expressed differences Defensiveness Impatience with process	Recognize and discuss differences High data flow	Respect/value differences Catalyst for change			
OWNERSHIP	Complaints about or others Blaming Intellectualizing	Selfish interests Competition Struggle for leadership	Sense of team cohesiveness Sense of accomplishment	High commitment Leadership shifts easily Loyal to group			

# TYPICAL TEAM BEHAVIORS

## FORM:

- · Signs of dependency on the leader or facilitator
- · Obedient whatever you say...
- · Negative feelings may not be expressed publicly may be privately
- Polite and formal chit-chat
- What are we to do?

### STORM:

- · Signs of conflict over leadership, authority, rules and the agenda
- Interpersonal disagreement
- · Verbal/nonverbal resistance
- Self-oriented behavior: dominating, withdrawing, blocking, recognitionseeking
- · Arguments, counterproposals
- Increased frustration
- · Challenge roles/responsibilities

## NORM:

- Giving/receiving feedback
- · Personal sharing
- Play instead of work
- · Harmonizing, gatekeeping, encouraging, compromising
- · Establish procedures for handling differences/decisions
- Trust and comfort build

# PERFORM:

- Shift from play to task
- Task-supporting roles: initiating, information-seeking, clarifying, summarizing, consensus-testing
- Interdependence develops
- · High energy
- Have fun working

Teams usually complete, the tasks regardless of the stage they are in. The difference is in the quality of the result, the efficiency of the teamwork and the pride individual members (eel about the results.

# Sample Ground Rules

(From the Deputy Leadership Team)

- 1. Ground rules will be posted and each person is responsible for abiding by them and helping others to do the same; the facilitator is empowered to remind group if rules are abused.
- 2. The DLT will use consensus to set agenda items, define goals and make decisions. The consensus approach is:
  - Discussion and proposed decision
  - Test (thumbs)
  - · Hear dissenting views
  - Modify
  - Dissenters reflect on "consensus box"\*
  - Decide

\*

• "I understand what most of you would like to do. It is not my first choice, but I feel you understand what my alternative would be. I have had sufficient opportunity to sway you to my point of view, but clearly have not been able to do so. Therefore, I can live with and support what I consider to be an acceptable solution."

Agenda items are those that:

- The DLT can do
- · Advance the DLT goals
- The DLT has control over
- Show a bias for results
- 3. DLT members will be candid in their discussions of all relevant issues. In their process, DLT members will:
  - Exercise Amnesty
  - Respect the diversity of views
  - Be honest!
  - Individual/group has responsibility to draw out and deal with above
- 4. DLT Goals will be:
- Realistic, attainable goals (reality check-can we pragmatically do this?)
- Limit goals to core agency issues
- Relevant to day to day work
- Priority given to short-term visible results
- Reviewed and updated
- Under promise & over deliver

- 5. Final agenda & support materials will be provided to members one week in advance of DLT meeting.
- 6. One hour will be on agenda each day to conduct other agency business among the deputies.
- 7. Each agenda item will specify a DLT member as the lead who will ensure appropriate facilitation, adequate preparation, the process to be used, the time allotted and the desired outcome.
- 8. The QAG will maintain a running list of major decisions and review action items and responsibilities at the end of each meeting.
- 9. Each DLT member commits before and after meetings to engage in give and take with staff and AAs/RAs to promote the flow of information and to provide & to receive direct feedback.
- 10. Decisions, including interim steps and resource commitments, will be recorded and considered final once consensus is reached unless re-opened by consensus.
- 11. DLT members, including the Deputy Administrator, commit to making every effort to attend all meetings and will:
  - Abide by the "100 mile" rule
  - Come to the meetings on time
  - Actively participate
  - Not send substitutes

# Satisfaction Survey Quality Highlights • January 1993

Please take the time to complete this survey. As in all things we do, the voice of the customer is most important to the members of the Quality Advisory Group. Based on your comments, we will improve our products and services to you--our customers. Thank You.

Group. Based on youour customer	your c	omme nk You	nts, we	will in	nprove	our pr	oducts and services
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# III. Appendices

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Please provide any	/ specif	fic com	ments	you ma	ay have	e below	
Please detach this	•				d mail		to the following:

Attn: Glen Mitchell (PM-224) 401 M St., SW Wasnington, DC 20460 FAX: 202-260-3885