"HOW TO" MANUAL

For:

ENVIRONMENTAL CONTRACTING

(A Mentor-Protege Program)

To Assist:

"Smarter Environmental Contractors"
(SEE)

Prepared For:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region VIII

and

State of Colorado
Governor's Job Training Office

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"How to" Manual for Environmental Contracting

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I. PREFACE

By 1987 it had become increasingly apparent to me that, although there was a great deal of talk about Minority, Small, and Women Entrepreneurs' (MSWEs) involvement in environmental work, very few were actually obtaining government contracts. What was needed, I felt, was a specific plan to aid MSWEs in their efforts in this area and determined to develop such a plan. The intial concept was presented to Les Franklin of the Governor's Job Training Office and Bob Duprey of the Region VIII EPA Hazardous Waste Management Division -- two individuals who had the vision and the commitment to support me and the Minority, Small, and Women Entrepreneurs for whom this document was written.

I would like to express my gratitude and appreciation to these two individuals for, without them and their encouragement, this document would not be available.

II. OVERVIEW OF "HOW TO" MANUAL

This book is an effort to assist Minority, Small, and Women Entrepreneurs (MSWEs*) in the acquisition and completion of long range environmental projects in conjunction with prime contractors and government agencies. This effort is accomplished in four phases:

Phase 1: By providing a clear understanding of the process, constraints, requirements, risks, impediments and benefits to environmental contracting and compliance as a prerequisite to becoming involved in environmental work.

Phase 2: By presenting information on high performance thought processes, thus allowing readers to overcome the habits, attitudes and thought patterns which in the past may have prevented them from performing at the level they desired and enabling them to make maximum use of the information presented in this workbook.

Phase 3: By utilizing the Mentor-Protege concept in which more powerful companies are entrusted to teach, guide, care for and develop smaller, less well-established MSWEs, thus enabling the MSWEs to be more competitive in today's market place.

Phase 4: By outlining a roadmap to follow in the acquisition of environmental contracts with the Environmental Protection Agency (EPA) , the Department of Energy (DOE), the State and the private sector. This includes addressing the organization of the personal documentation, the business documentation, the marketing approach, the contract, and contract compliance systems.

* In This manual small businesses are referred to as Entrepreneurs, "Es"; as opposed to Business Enterprises "BEs". Anytime the discussion relates to goals or set-asides, minority and women entreprenuers are referred to as MWEs.

III. WHY DOES THIS OPPORTUNITY EXIST AND HOW LARGE IS IT?

By 1989, the yearly statistics for the issuance of EPA environmental contracts to small businesses in the State of Colorado, for example, were a mere 2.6% (only 19 of the 84 available contracts or $180 million vs. $6.9 billion). This occurred even though 86% of Colorado firms are small businesses with less than 20 employees, employing 52% of the workforce, and creating approximately 93% of the net new jobs. The opportunity is clearly there and it is sizeable.

A. Superfund Cleanup Program

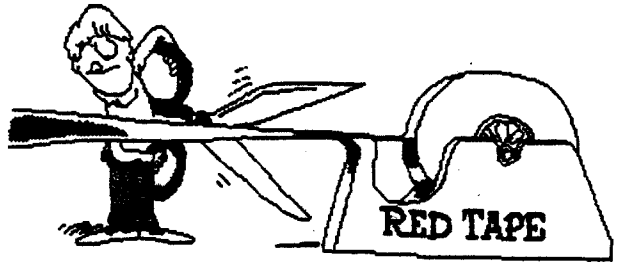
In 1980 the Superfund cleanup program was established by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLA originally authorized a five-year program by the Federal government to perform the following primary tasks:

1. Site Identification

Identifying those sites where releases of hazardous substances had already occurred or might occur and pose a serious threat to human health, welfare, or the environment.

2. Remedial Action

Taking the appropriate action to remedy those releases.



3. Compliance Monitoring

Insuring that the parties responsible for the releases pay for the cleanup actions.

B. CERCLA

To accomplish these tasks, CERCLA gave new cleanup authority to the Federal government, creating a $1.6 billion trust fund (the "Superfund") from tax assessments on oil and designated chemicals. This fund pays for government cleanup and imposes cleanup liability on those responsible.

C. SARA

By 1986 it had become increasingly clear that the problem of abandoned hazardous waste sites was more extensive than originally thought and its solution would be more complex and time-consuming. Therefore, the Superfund Amendments and Reauthorization Act of 1986 (SARA) not only extended CERCLA for another five years, but increased the Fund five-fold: from $1.6 billion to $8.5 billion. SARA established new standards and schedules for site cleanup and created new programs for informing the public of risks from hazardous substances in their community and preparing communities for hazardous substance emergencies.

D. Under Utilization by Superfunders/ARCS

Presently the "Superfunders/ARCS" are receiving the bulk of the business. The Alternate Remedial Contract Strategy (ARCS) is a long-term contracting vehicle whereby architectural/engineering firms are cleaning up hazardous waste sites with actions ranging from the oversight of Potentially Responsible Parties (PRPs) to actual remedial action.

Although the intent is for these "ARCS" to subcontract with MSWEs, it has been difficult to identify those MSWEs who are "qualified" to do environmental work. Clearly a process must be developed to allow access to this industry.

There has been some background work related to a policy change to enable more small businesses access to environmental projects. The DOE and other government agencies need a Small Business Access Policy to allow small business to participate in environmental projects. Major contracts should be planned in increments that will enable local small contractors to bid on them. Advance planning of major environmental projects should be conducted considering the local workforce and training needed to prepare small businesses to participate. Large contracts need to be broken down into smaller contracts to enable MSWEs to participate.

When we look at the proposed goals for government contracts to minority and women owned businesses (5 - 10%), and the actual figures (1 - 2%, in 1989), the wide discrepancy is readily apparent. To reduce this discrepancy we recommend allowing MSWEs to more readily and successfully access the system as proposed in the "Smarter Environmental Entrepreneurs" (SEE) Program.

E. Environmental Equity

"The consequences of environmental pollution should not be borne disproportionately by any segment of the population. Accordingly, the Agency is evaluating the environmental risk burden borne by racial and ethnic minorities and low income people, as well as EPA's role in reducing that risk. To accomplish this task, I have established a work group which has my full support and to which each operating component is expected to extend its full cooperation." (Bill Reilly, EPA Administrator)

EPA:

• The Agency's proposed operating definition of equity is to ensure that no populations or communities are systematically ignored.

OTHERS:

• The fairness of a particular arrangement

• The ability to ensure that no individual or groups of individuals suffer a disproportionate environmental risk burden because of race, ethnicity, or income.

• The allocation of burdens to those best able to deal with them.

The Environmental Protection Agency (EPA) is engaged in a major refocusing of its activities based on risk. Concerns within and outside the Agency have caused the EPA to review the distribution of environmental risk and the "EQUITY" of its programs and policies. Current policies and programs are being examined. This review, for the first time, involves the minority and low income communities.

The Administrator of EPA, Bill Reilly, formed the EPA Environmental Equity Workgroup to:

• Review and evaluate the evidence that racial minority and low income people bear a disproportionate risk burden.

• Review current EPA programs to identify factors that might give rise to differential risk reduction, and develop approaches to correct such problems.

• Review EPA risk assessment and risk communication guidelines with respect to race and income related risk.

• Review institutional relationships, including outreach to and consultation with racial minority and low income organizations, to assure that EPA is fulfilling its mission with respect to these populations. The EPA report to the Office of Management and Budget on Pollution Abatement and Prevention at Federal Facilities show

that the Federal Government owns approximately 29,000 facilities in the United States alone. In addition approximately 1.2 billion dollars for pollution abatement controls was spent in fiscal year 1991. In many instances private contractors are employed to implement pollution control remedies and projects at Federal Facilities.

Many minority contractors are unaware of the opportunities that exist at these facilities and, therefore, they do not participate in the clean-up effort. Consequently, the EPA has embarked upon a program entitled Environmental Equity. Environmental Equity refers to not only the distribution of environmental risks across certain sub-group populations, it also includes the fair and equitable distribution of Federal resources to contractors, particularly minority contractors. Environmental Equity is important to those who do not share equally in environmental benefits. It provides a more equitable reduction of risks, distribution of resources, and an environmental policy making process that allows the concerns of all communities to be heard, understood and considered.

IV. SO, HOW DO I GET MY FOOT IN THE DOOR?

This document contains the procedure for organizing the company/owner's/officers personal documentation andfinancial reports, the business documentation and financial reports, the plan for marketing to EPA, DOE and prime contractors, the contract, and contract compliance.

As in many things, ***BEING PREPARED*** and ready to respond is half the battle. In the environmental contracts industry, there are certain "rules and regulations", "policies and procedures" to which a potential contractor must adhere. Knowing what those requirements are and being prepared to meet them enables any entrepreneur, from the most experienced to the novice, to enter the competitive arena with confidence.

This manual begins with the organization of the very basic business requirements; i.e., personal and business structure as well as documentation in areas such as personnel and finance. These particular items should be ready and available for contract and loan support (in some instances there may be a need to obtain a loan to support the potential contract) or a Contractor may need to be assured of the company stability at the onset of the relationship. If the personal and business documentation are in order, it may help to expedite the contracting process.

This logic follows throughout this manual -- learning the system and being ready to respond.

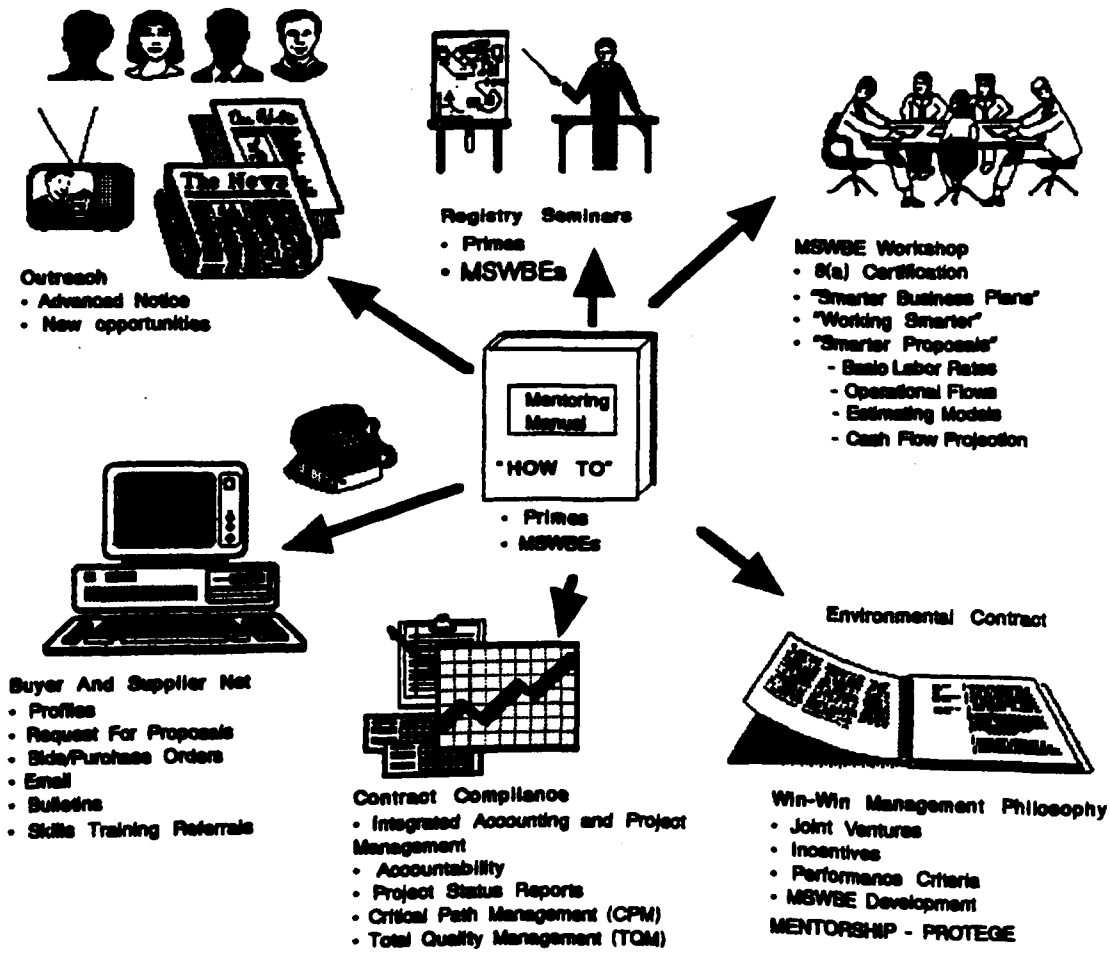
This manual is structured and written to address the business needs of the novice entrepreneur as well as of the highly qualified entrepreneur who just needs assistance in entering the environmental field. This manual is also for those who just need some direction as to where to start with winning proposals.

V. BUT, HOW WILL I EVER LEARN TO COMPETE IN THAT ARENA?

A. Mentor-Protege Program, "Smarter Environmental Entrepreneurs" (SEE)

While it is true that smaller businesses do not have the resources, financial or otherwise, to support marketing and lobbying personnel at a national level, they can gain a foothold in this industry by joining forces with a larger company through a mentor-protege arrangement (the "Smarter Environmental Entrepreneurs" (SEE) Program).

"Smarter Environmental Entrepreneurs" (SEE)



The Mentor-Protege program, a joint venture between the private sector and the government (EPA, DOE, SBA and the State), focuses on four major points:

1. Competition and performance

   The program stresses competitiveness and performance (both in business management and technical operations) for both the prime contractor and MSWEs.

2. Joint ventures

   The program utilizes joint ventures and subcontracts for long range environmental project acquisition.

3. Deliverables

   The program emphasizes that (1) performance should be measured and that (2) as with any other deliverable, there should be a relationship between payment and performance.

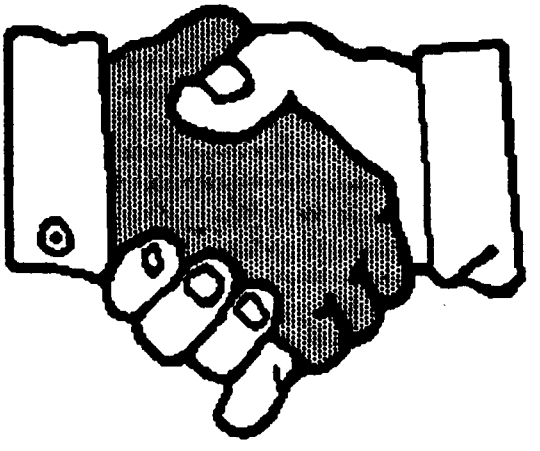
4. Resource matching

   The program provides a database of the State's resources, coordinates with EPA, DOE and prime contractors about contracts (existing, near term and long range) and assists in matching the local resources to meet the contractual needs based on skill level to low, medium and high risk contracts. SEE will assist in matching based on skill level to low, medium, and high risk contracts.

B. Win-Win Management Philosophy

A win-win management philosophy is employed. Specifically, MSWE participation in environmental projects will increase without sacrificing the high performance standards required of contractors by stringent environmental laws.

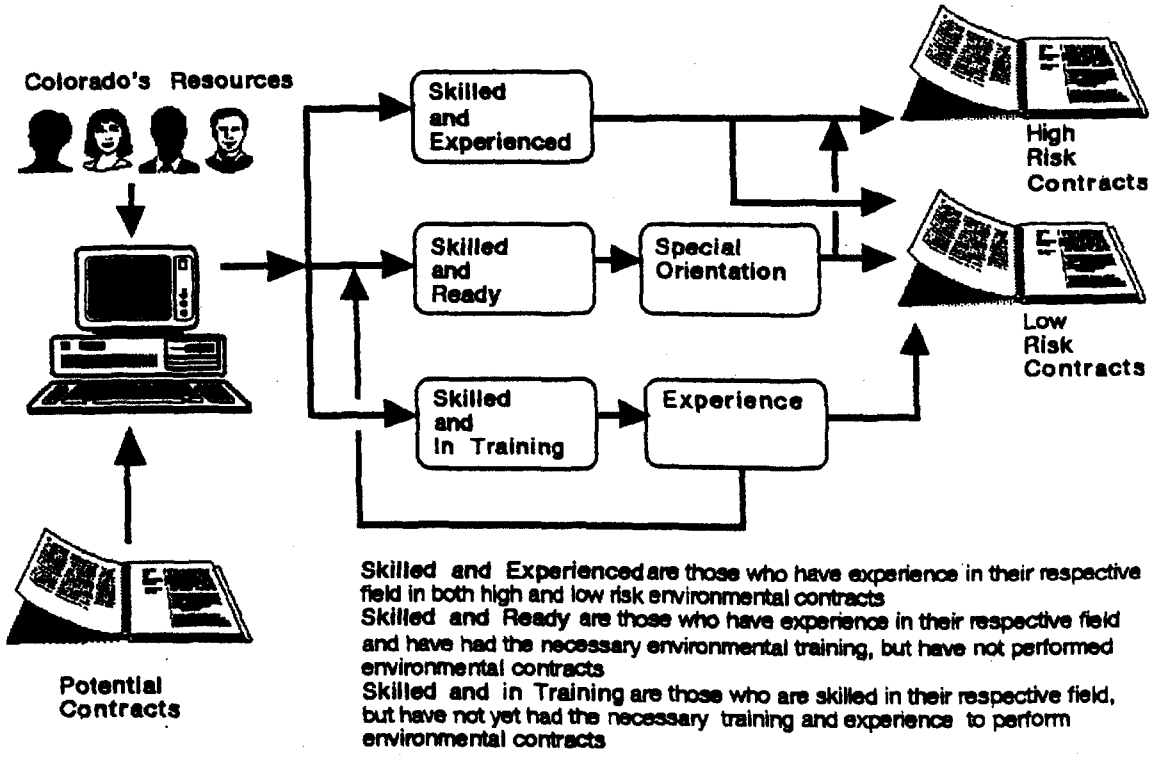
The win-win management philosophy focuses on performance, competitiveness, and deliverables, through cooperative ventures between the Primes and MSWEs. This mentoring model includes incentives to promote participation in the pilot program. Following training and Prime Contractor mentoring of MSWEs, successful joint ventures provide the incentive to continue this win-win relationship.



C. Skill Utilization

The State has qualified, but under-utilized skilled MSWEs to meet the environmental contracting needs. These skilled MSWEs are at various levels in their ability to perform contractual obligations -- skilled and experienced, skilled and ready, and skilled and in training.

"Smarter Environmental Entrepreneurs (SEE) Skill Levels



Qualified - - Under utilized

This approach effectively utilizes both the technical and administrative expertise of prime contractors to assist in meeting MWE goals in an effective and efficient manner. The project also underscores the idea that MWE goals are worthwhile and attainable through this process, and that the cost of a carefully planned and executed attainment program (such as Mentor-Protege) is an allowable contract expense. Finally, the program emphasizes that: 1) both MWE goals and the attainment program should be defined; 2) performance should be measured; and 3) as with any other deliverable, there should be a relationship between payment and performance.

D. Program Coordination

The program is designed to work in concert with other State programs that provide MSWEs with information, State-provided training, certification, and assistance. This program seeks out the MSWEs that have the occupational/industrial skills for environmental projects and trains them in how to successfully access and manage these projects. The program progress is documented in monthly reports with recommendations to enhance the models that have been demonstrated.

E. Training and Services

Increased participation will be achieved, in part, as a result of intensive training and services provided by the State through other funding sources. This approach is unique in that both the prime contractors and MSWEs are evaluated on performance and deliverables. SEE's focus is on maximizing contractor performance to achieve MWE goals in accordance with the existing EPA and State rules and regulations. The prime contractors are strongly encouraged by the facility's operator, the government, and the community to participate in SEE and develop the MWEs to their optimum capacity and capability.

1. Set -aside Programs

Since the late 1960's, MWEs participation in Federal and State funded projects has been encouraged by establishing goals for Federal and State contractors, and through set-aside programs administered by Federal and State agencies. Prime contractors are encouraged by law to arrange support to ensure successful participation by disadvantaged businesses.

These programs have met with limited success for several reasons, principally: 1) confusing guidelines and contract policies on utilization of MWEs; and, 2) the additional burden and expense to the prime contractor of orienting MWEs to subcontract procedures and responsibilities.

2. Pilot Program

The State of Colorado, through the Governor's Job Training Office (GJTO), developed a pilot program to address these issues and train MSWEs on how to compete, perform, and deliver on environmental projects. The pilot program was designed to work in concert with other State programs that provide MSWEs with information, training, certification and assistance. This program seeks out the MSWEs that have the occupational/industrial skills for environmental projects and trains them in how to successfully access these projects.

3. Existing Programs

MSWE outreach efforts inform the MSWE community of environmental contracts and awards, and provides them with realistic information and technical assistance in sufficient time to allow them to respond with proposals.

An action-oriented outreach program informs the MSWE community of the SEE project and then provides advance notice of environmental projects. The outreach effort relies on personal presentations, distribution of printed materials, and media advertising to seek out MSWEs. Communication, in Colorado for example, is networked through Colorado's Minority and Women Chambers, Minority Enterprises Inc., Front Range news media, government agencies, and the computerized MSWE registry (BASnet).

An effective outreach model is a major key to increasing the potential for MSWEs to effectively compete and participate in environmental projects. A significant result of the outreach program is the ability to successfully access MSWE firms not only in the local area, but in the entire State.

4. Existing Training

a) General Information Seminars (Primes and MSWEs)

Seminars are conducted to provide detailed information to both the Prime Contractors and MSWEs. The notion of joint ventures between the two on environmental projects is introduced and dialogue between qualified MSWEs and the Primes is facilitated. The general information is provided on the new mentoring guidelines, training, MSWBE availability and qualifications, certifications and licensing, bonding and insurance.

b) MSWE Recruitment/Information Seminars

Seminars are conducted to recruit MSWEs and to provide realistic information on the diverse opportunities available to bid on environmental projects, to participate in the program, and to outline the advantages thereof, namely: 1) accessing a new source of revenue; 2) gaining federal recognition as a minority contractor with 8(a) certification; 3) joining a network of contractors eligible to participate in a rapidly expanding industry; and 4) having an opportunity to participate in the State's economic development. The presentations include information about this program and the resources offered to enable MSWEs to adequately compete for environmental projects.

c) Prime Contractor Education/Information Seminars

Seminars are conducted to inform prime contractors about how to do business with a culturally diverse business community in accordance with the new incentive policies and procedures.The desire of the contracting agency for increased participation by MSWEs and a means to accomplish this is discussed. The objective is to motivate prime contractors to enter joint ventures with and to develop MSWEs. Information is included on how to train their contract staff and EEO personnel to contract with MSWEs.

d) MSWE Skill-Building Workshops

The purpose of this effort is to train MSWEs on the process of how to become environmental subcontractors. A group of MSWE contractors are selected to participate in intensive training workshops. The selections are based on applicability of services versus the primes' needs and the MSWEs' potential for success.

Workshops are conducted to train MSWEs to move further into the mainstream of the local economy through "hands-on" business skill building techniques. Guidance is provided in developing a business plan on how to prepare for environmental work. In developing the workshops, staff interviewed corporations with success in developing small businesses, surveyed training institutions and coordinated with Colorado's Minority Business Office (MBO) to customize activities to the specific needs of the MSWEs.

"Hands on" group training sessions are conducted on how to complete the 8(a) and other certification packages. Considerable attention is given to introducing participants to the paperwork involved in the bid process. A detailed checklist identifying the needed requirements for environmental project participation, such as OSHA Hazardous Material Certification, and safety/liability issues and insurance and/or bonding is developed.

e) Prime Contractor Focus Groups

Prime contractor focus groups are conducted to help strengthen the communication between similar environmental contractors on MSWE contracting. Techniques and procedures to increase MSWEs successful participation are jointly developed and shared. These workshops also assist the prime contractors in developing internal training sessions to address the diverse culture of MSWEs and the mentoring process.

f) "Working Smarter" Seminars

The purpose of these seminars is to teach participants how to utilize the Critical Task Analysis process which is a basis for TQM. Participants learn to develop a strategic plan, thus increasing their competitiveness and profits.

5. Potential Community Workshops

To assist in that effort, community workshops could be conducted which would consider, but not be limited to:

a) Risk Assessments

Who pays? What does it mean in "lay terms"? How are they done? What do they mean? How are they used? (For example: What is a risk factor? How is risk determined? What risks are acceptable? Why/why not?)

b) Legal Rights

What are people's rights and how can they be pursued? How can private property owners pursue their legal rights? What legal rights do they have? How can the Superfund cleanup have a positive economic effect locally?

c) SARA Title III

What is it? How does it work? What is it for? Who can access what information? How is that information accessed?

d) Technical Assistance Grants

How communities can access technical assistance grants or other types of grants which they could use to do studies, hire people for technical assistance, do outreach into communities, etc.

e) Relationship of Federal/State/Local Governments Responsibilities

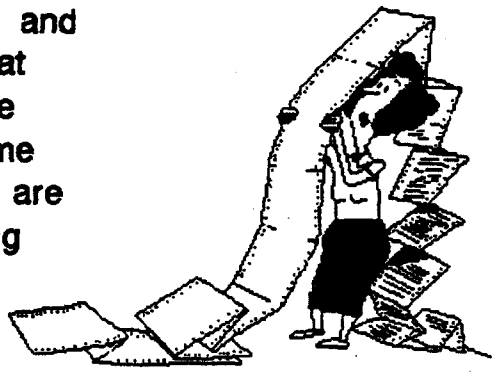
Where does the responsibility lie for oversight, enforcement, suits, etc., related to polluting industries?

f) Hazardous and/or Toxic Materials

Why are materials defined as hazardous and/or toxic?

F. MSWE Registry

The purpose of this effort is to expand and enhance the MSWE registry system that matches prime contracts with available MSWEs. The objective is to match prime contractors with available MSWEs that are interested in and capable of performing environmental projects.



The computerized MSWE Registry enables search by discipline, service, ethnic group, gender, zip code, and certification status, i.e., City and County of Denver certification, State Regulatory Agency certification, and those awaiting certification. The database also includes other pertinent data such as number of employees, and annual revenues. This database has the capability of interfacing with other MSWE databases nationwide. This network is capable of first searching for MSWEs in the local area, then throughout the State. This computer registry expedites the matching of certified as well as non-certified MSWEs for federal and state funded environmental projects.

BASnet is not just a database, but a distributed computer communications system allowing POs/RFPs to be loaded by Primes and searched by MSWEs. Response to the POs/RFPs can be made through electronic mail.

SEE can utilize BASnet to advertise and promote environmental projects to both the Prime Contractors and MSWEs. BASnet can be an integral part of the SEE Outreach Program. BASnet can also be linked to the Small Business Development Centers (SBDCs).

G. "How To" Manual

This manual, available at no cost to those who request it from EPA Region VIII, is another tool for helping MSWEs better compete in this arena. Designed to be used "independently", the manual allows individuals to obtain the necessary knowledge at their convenience.

VI. WHAT WILL BE THE RESULTS OF ALL THIS EFFORT?

- Minority, Small and Women Entrepreneurs trained to work on environmental projects.
- A successful MSWE economic development model which can be used by other governmental agencies.
- A contract compliance system which can be utilized by MSWEs and Prime Contractors for project planning, development and management.
- A computerized MSWE registry providing easy access to a database of quality contractors for environmental projects.

VII. WHAT ARE THE PREREQUISITES FOR AN ENVIRONMENTAL CONTRACTOR?

Extensive documentation is needed when you are doing business with the government, much of which can be used repeatedly (with updates) no matter which contract you are seeking. Although the initial compilation of these documents may be tedious and/or time consuming, they are critical to the contracting process and must be given the same attention to detail that you give to the proposal itself.

A. Personal Documentation

1. Resume

A resume of the education, technical training, and business and employment experience for each officer and key employee (including employer's name, dates of employment and nature of employment) are crucial in promoting the Company and acquiring contracts in that it concisely demonstrates your ability and know-how.

Resumes are like people; they come in all sizes, shapes and forms. A primary objective of a resume is to create in the receiver a desire to read it and then set up an appointment with the resume owner.

The bottom line of your resume is that you want the reader to know that you are a potentially valuable employee and that you are responsible, capable, and willing to work to meet their needs.

The information contained in the resume should, therefore, provide the reader with the necessary information to allow him to determine if there is a match between your skills and the organization's needs.

Today people are "30-second TV commercial" oriented. If we could develop a 30-second resume, we would be compatible with today's resume readers. In the absence of our ability to do that, however, there are specific guidelines you should follow in preparing your resume.

While the resume can be tailored to the job, this may be dangerous in that you may not have a clear understanding of the reader's needs or may fail to address a key area of importance.

You may want to use highlighting and underlining to draw attention to the important and/or significant words in the following five sections of your resume:

1) Personal Data: Personal data should help establish the stability of the individuals within the company they are hiring you, the individual, as much as your set of qualifications.

2) Job Objective: The Job Objective should be the main focus of your resume, unless it is an open-ended resume for any job/position related to your capabilities. Job Objective should motivate the reader to read/study the resume because he feels his

organization's opportunities may be a good match for your career goals.

3) Previous employment: Most resume readers like to have a summary heading with the listing of previous job tasks chronologically listed, beginning with the most recent.

The summary for each previous position should provide the job title, description, and accomplishments; the length of time the position was held; and the reason for leaving the position. It is important to be specific without becoming too "wordy".

4) Education: In general, experience and education begin to reverse in importance as the years of experience increase. A recent graduate has only his/her education to rely on for a job, whereas the experienced person usually has both. List such things as company courses, home study courses, and technical training.

5) References: Add a statement that References will be provided upon request.

A resume that is limited to two pages or less for a specific job will be better received than a resume of 5 to 6 pages.

Professional presentation of the resume is important. Once your resume is completed, have a couple of friends who don't have a clear understanding of your business read it for clarity and understanding as well as for errors in spelling, punctuation or grammar. For ease of reading, ensure the type size is large enough and your resume is printed on good quality paper for ease of reading. This is your first "point of contact" and it should be designed so as to create a favorable enough impression that it will result in a personal interview for you.

a) *EXERCISE:* Previous employment

Prepare a rough draft of the previous employment section of your resume.

(1) Job Title:

(a) Description:

(b) Accomplishments:

(c) Length of time position was held:

(d) Reason for leaving position:

(2) Job Title:

(a) Description:

(b) Accomplishments:

(c) Length of time position was held:

(d) Reason for leaving position:

(3) Job Title:

(a) Description:

(b) Accomplishments:

(c) Length of time position was held:

(d) Reason for leaving position:

2. Statement of Capabilities (SOC)

The SOC is another form of providing more details about your experience and capabilities. The SOC is just that -- a statement of your capabilities, but written in a manner and structure to provide a clear picture of how you can meet the needs of the reader. The SOC is not part of the resume.

It may be to your advantage to build a complete SOC and as the opportunity arises select only those SOC portions that are pertinent to the job that you are seeking.

The SOC should first provide the job title with a complete statement of your duties and responsibilities followed by your accomplishments within the specific job.

3. Personnel History

Individuals associated with a firm must be of good character. The information in this section is used in connection with an investigation of individual character of these individuals.

The Personnel History should include:

- Name and complete address of firm
- First, middle and last name of the individual
- Date of birth (including month, day and year)
- Place of birth (including city, state or foreign country)
- Are you a US citizen? If no, give alien registration number.
- Social security number

- Percentage of ownership or stock owned in the Company
- Present residence address (including dates of residence)
- Immediate past residence address (including dates of residence)
- Answer the following three questions:
  - Are you presently under indictment, on parole or probation? (if yes, furnish details)
  - Have you ever been charged with or arrested for any criminal offense other than a minor motor vehicle violation? (if yes, furnish details)
  - Have you ever been convicted of any criminal offense other than a minor motor vehicle violation? (if yes, furnish details)
- Name and address of bank
- Signature, title and date

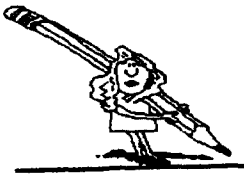
The information may be either clearly printed or typed and submitted by:

- The proprietor, if a sole proprietor
- Each partner, if a partnership
- Each officer, each director, and each holder of 10% or more of the voting stock, if a corporation or a development company
- Any other person, including a hired manager, who has authority to speak for and commit the borrower in the management of the business.

Ensure that the information is complete and every question is answered completely.

a) *EXERCISE:* Personnel History

PREPARE YOUR PERSONNEL HISTORY



YOUR WORK

4. Personal Financial Statement

The personal financial statement should contain a listing of assets and liabilities with the net worth. Separate Personal Financial Statements for partner/proprietor and spouse or Corporate Officer, director, stockholder and spouse may be required for some contracts/loans.

In the case of a Sole Proprietorship, separate Personal Financial Statements should be available for the proprietor and his/her spouse.

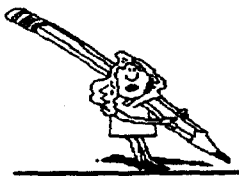
For a Partnership, separate Personal Financial Statements should be available for each partner and his/her spouse.

For a Corporation, a separate Personal Financial Statement should be available for each officer, each director and each stockholder having more than 10% ownership in the applicant firm, as well as for the spouse of each such individual.

a) ***EXERCISE:*** Personal Financial Statement Checklist

If you do not have a personal financial statement already prepared, what is your plan for completing it? Include a list of tasks which need to be accomplished and a date by which each task will be completed. If the person responsible for accomplishing the task is someone other than yourself, identify who that individual is.

TASKS/COMPLETION DATE/RESPONSIBLE PARTY



YOUR WORK

5. Income Taxes

You should have copies available of individual federal income tax forms filed for the past two years, including W-2 forms and all schedules for each owner, partner, officer, director, and stockholder, in case they are needed for financial purposes.

6. Real Estate

a) House

If you own, or are in the process of purchasing, a home you will need to obtain a legal appraisal from a licensed real estate appraiser in order to determine its value. A legal description of the property should also be obtained.

If your home is fully owned, you need to have the deed available. You may also need to make available title insurance information and/or an abstract of the property.

If you are currently purchasing your home, you need to have available the name of the mortgagor, the amount of the balance of the loan as well as the amount of interest you have in the property.

b) Other

Just as with your home, you will need to obtain a legal description and a legal appraisal from a licensed real estate appraiser.

Then, depending upon whether you own or are in the process of purchasing this property, you will need to provide proof of ownership (the deed, abstract and title insurance) or information on the mortgage (if you are in the process of purchasing the property). This mortgage information should include the balance due on the loan and the amount of interest you currently have in the property.

7. Banking

Be prepared to provide the name, address and phone number of the institution at which you bank; the name, title address and phone number of your contact person there; and the types of accounts which you have, i.e. savings, checking.

8. Investments

For investments, such as CD's, bonds and mutual funds, you will need to provide the name of the institution with which the money is invested, the amount of the investment, the current value of the certificate, the number of the certificate, the maturity date of the certificate and the individual(s) in whose name the certificate is held.

B. <u>Business Documentation</u>

1. General information

The following information may be required, in addition to the company profile.

a) Law suits

Is the business concern or any person in the Company management involved in any present or pending lawsuits? If so, have information available.

b) Facility

Floor space should be listed by square foot. If the business has more than one location, list each location separately.

c) Equipment

Provide a detailed listing of your primary operating equipment by quantity, description, age, condition (good, fair, poor). Indicate whether it is leased or owned. If owned, provide the original cost and date of purchase.

d) Policies & procedures

- Tasks, schedules and cost
- Lead times
- Capacity
- Estimating

e) *EXERCISE:* General information development

(1) Law suit

Is the law suit issue applicable? If so, where is that information available?

(2) Facility square footage

How many square feet of floor space does your business occupy at each location?

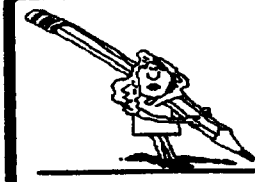
(3) Operating equipment

Complete the following exercise.

(a) *EXERCISE:* Operating Equipment Listing

List your primary operating equipment. Indicate quantity, description, age, condition (good, fair or poor) and whether it is leased or owned (if owned, provide the original cost and date of purchase).

LIST OF PRIMARY OPERATING EQUIPMENT



YOUR WORK

(4) Policies and procedures

In order to develop Policies and Procedures for your business, it is necessary that you have a clear definition of key functional operations such as:

- Tasks, schedules and cost
- Lead times
- Capacity
- Estimating

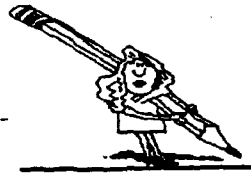
Define the relationships of tasks, schedules and cost for your business.

(a) ***EXERCISE:*** Definition of business capacity

Define the capacity of your business. Include necessary lead times.

Do you have an estimating model that considers task, schedule and cost? If not, a model is provided later in this document (Section XII. D.).

BUSINESS CAPACITY AND LEAD TIMES



YOUR WORK

2. Business profile

The company profile should be typed on Company letterhead using the example below. The profile should be one page, with double spacing between paragraphs and a one-inch left margin.

a) *EXAMPLE:* Business profile

Complexity Simpilfied, Inc
P. O. Box 100280
Denver, CO 80250
303-777-1121

Complexity Simplified, Inc. provides Business Management Consulting and System(s) Development services to major entities, as well as minority and women owned businesses. Included are services to major entities to encourage involvement of minority, small and women businesses in their contracts. We are commonly known as a "turnaround specialist" company.

Complexity Simplified, Inc. works with and develops management and systems in the following areas:

"Smarter Business Planning" - step-by-step implementation
- Executive Summary (loan package)
- Detailed schedule to implement
- Cost to implement with a Cash Flow Projection and ROI

"Working Smarter" streamlining the process
- Product development - Total Quality Management (TQM)
- Critical Task, Schedule, and Cost/Critical Path analysis
- Management tool(s) development
  - Basic and composite labor rates
  - Estimating models
  - Overhead controls
  - Cash flow management and analysis

"Smarter Proposals" preparing a winning proposal
- Request for Proposal (RFP) analysis
- Proposal development and writing
- Proposal estimating
- Proposal packaging and submittal
- Negotiation

Complexity Simplified, Inc.. has created, designed and manages a distributed computer communication network -- BASnet (Buyers and Suppliers network). BASnet contains a database of minority, small, and women business profiles maintained by the respective Chambers. BASnet is a major link between buyers and suppliers of Corporate, Minority, Small and Women businesses.

Complexity Simplified, Inc. is an American Indian Minority Business Enterprise (MBE) certified with the City and County of Denver, State of Colorado, MEI, SBA 8(a) (SIC 8741, 8742,

8744, 8748 & 8299), and US West.

Officers of the corporation are:
Thomas A. Godwin, President/Treasurer
Ruth L. Godwin, Vice President/Secretary
Corporate Advisors - Ty Godwin, Computer Systems;
Dave Talbott, Oil Production Engineer

Contact person is Tom Godwin, (303)777-1121.

b) *EXERCISE:* Business profile

COMPANY NAME
Street Address
City/State/Zip
Telephone Number

The introductory paragraph should consist of a brief overall description of your business. You may also include some promotional information to add interest. (Approximately 5 lines)

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This section is your main paragraph and should include more detail about your capabilities. This section can be a bit more technical and can bring out more background information about what your company offers. (Approximately 20 lines)

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This paragraph should contain information about your MBE/WBE status, including any certifications you have. (Approximately 5 lines)

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List your company officers (Approximately 5 lines)

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List your company contact person (name, title, address and phone number)

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3. Company profile

a) Company demographics

- Business name (including any trade names)

- Street address, City, State, Zip Code, County, Telephone, and Mailing Address of Business

- Type of business
  Manufacturing
  Dealer/Wholesaler
  Construction
  Non-professional service
  Professional service
  Concession

- Date established (This is the date that the firm was established)

- Fiscal Year (This is the Fiscal Year for the firm)

- Date of present ownership (Fill in complete date; i.e., January 4, 1990).

- How long in business?

- Legal structure

- IRS employer's ID number (EIN) or Social Security Number

- Present number of full/part-time payroll employees (including subsidiaries and affiliates)

- List the business activities in which you are presently engaged. Indicate the percentage of your firm's total revenues for the most recently completed fiscal year for each type of business.

b) Company History

(1) ***EXAMPLE:*** Company history

A Sample, Inc. was incorporated in October, 1984 by owner and President, R. H. Goodbar. The company was set up for the purpose of state-of-the-art business technology transfer to small and mid-market businesses.

The first Board of Directors meeting of A Sample, Inc., was held on the 10th day of October, 1984. The Company focus has been in the development and enhancement of minority and women businesses while working with the respective Chambers.

A Sample, Inc., has completed numerous contracts with small companies in putting together Business Plans, Cash Flow Projections, and Bank Loan Packages. The Company has also completed contracts with major entities. These contracts involved locating small, minority, and women businesses, training them in business management skills, and getting them more involved in the economic mainstream of the State.

c) Company Management

Based on your business structure, list the name of each proprietor, partner, officer, director, and each stockholder.

List all officers and individuals in middle management. List their name and title, annual compensation from the business and hourly/weekly salary rate.

If the business is a Partnership, list the names of the partners, whether they are a U.S. Citizen, and their percent of ownership in the partnership.

If the business is a sole proprietor, list the owner and state if they are a U.S. Citizen.

(1) *EXAMPLE:* Company management profile

A Sample Inc's management is structured as follows:

Every effort is made to minimize overhead costs by utilizing temporary subcontract services, associates, as well as the principal's skills in planning, integration, implementation, and management.

R. H. Goodbar, President, will direct and manage all operations of the Corporation.

Susan Ops directs the day-to-day operations -- job assignments, budgets, schedules and reports.

Associate services will be used to support A. Sample, Inc. in the areas where A. Sample, Inc. does not have the depth or resources for a cohesive project implementation.

Ken Account, whose experience is in business and office management will manage the office and business accounting.

Meg Goodbar will support A. Sample, Inc. in marketing on a

parttime basis while she continues to conduct her full-time job as a computer supply and peripheral salesperson.

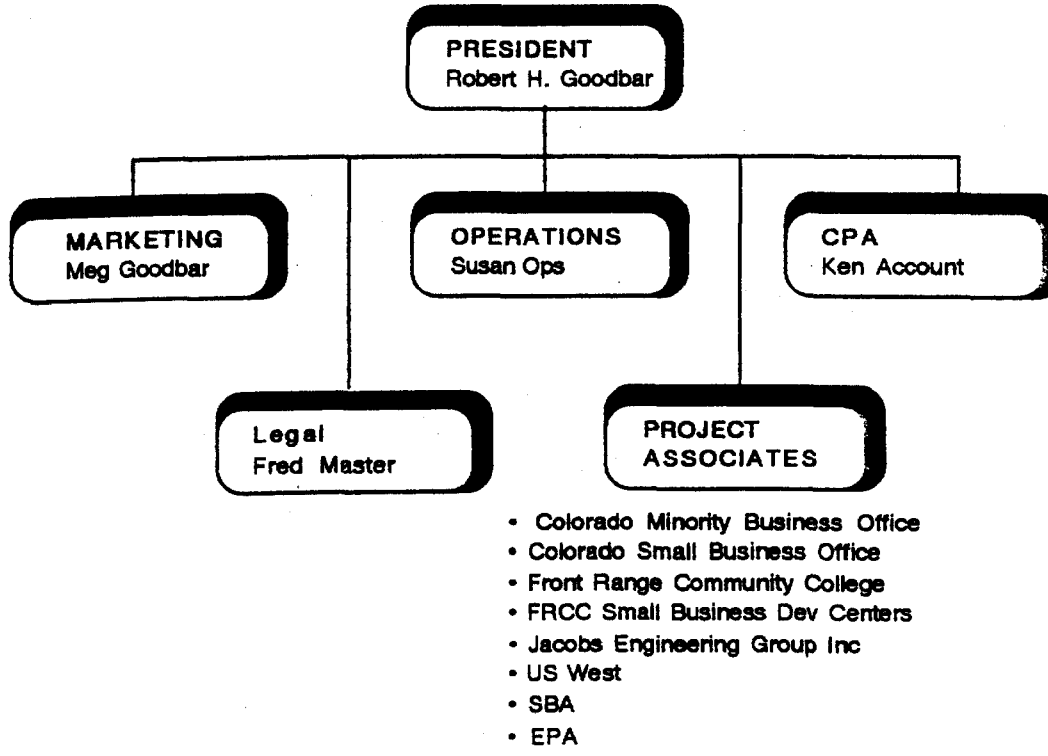
The services of Fred Master (lawyer) will be utilized as Joint Ventures are established for A. Sample, Inc. to verify that A. Sample, Inc. complies with City, State, Federal and business requirements.

Project associates will be employed as needed for project(s) implementation.

The present contract with the State of Colorado is a fixed firm price contract for approximately $000,000 and it is A. Sample, Inc's intent to provide other services to the State of Colorado by additions to the present contract.

d) Company Organization

The Business Organization chart must be complete with name, title and responsibilities clearly delineated. Sign and date each sheet.



VIII. WHAT BUSINESS DOCUMENTS DO I NEED?

A. General Documentation Based on Type of Business

Depending upon how your business is organized, you will be required to provide different documents.

1. Sole Proprietorship

   a) Business License

   Have copies of business licenses (City, County, or State, as required by law) available

   b) Business Insurances

   Have copies of schedule of business insurances (Comprehensive, Liability, Workmen's Compensation, etc.) available

   c) Business Federal Tax Forms

   Have signed and dated copies of business Federal Tax returns, including all Schedules, for past three years available.

2. Partnership

   a) Partnership Agreement

   Have a copy of your partnership agreement, including a buy/sell agreement available, if applicable.

   b) Business Insurances

   Have copies of schedule of business insurances (Comprehensive, Liability, Workmen's Compensation, etc.) available.

   c) Business License

   Have copies of business licenses (City, County, or State, as required by law) available.

3. Corporation

   a) Articles of Incorporation

   Have a copy of Articles of Incorporation available.

   b) By-Laws, including all amendments

   Have signed copies of all corporate by-laws and any amendments that have been made available.

   c) Stockholders Meeting Minutes

   Copies of all minutes of stockholders meetings election of Board of Directors, and last board meeting should be available.

   d) Board of Directors Meeting Minutes and Resolutions

   Copies of all minutes of Board of Directors meetings and all resolutions of the Board of Directors should be available.

   e) Stock Certificates and Stock Register

   Copies of stock certificates (front and back) and stock register should be available.

   f) Certificate of Good Standing from State

A Certificate of good standing from the State should be available in case it is requested as a final confidence check. If you do not have a Certificate of good standing, it can be obtained from the Secretary of State's Office.

g) Lease Agreement

If your business property is leased, have a copy of your business lease agreement available.

h) List of Affiliates

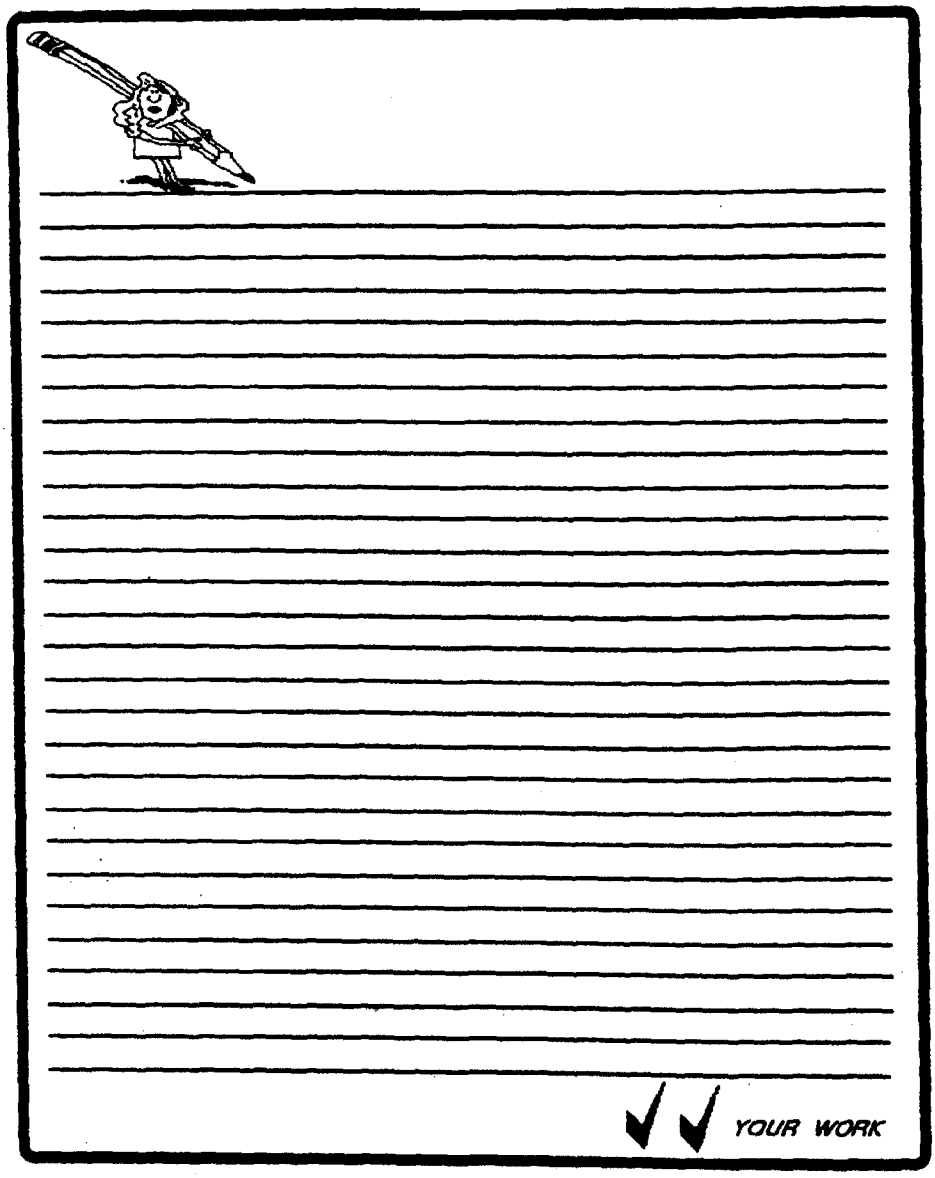
If your business is affiliated with any other company, have list of affiliates available.

i) Business Insurances

Copies of schedule of business insurances (Comprehensive, Liability, Workmen's Compensation, etc.) should be available.

4. ***EXERCISE:*** Business document checklist

CHECKLIST/LOCATION OF DOCUMENTS



B. Certificate of Competency

The Certificate of Competency (COC) procedure is one of the means authorized by the Congress to help small concerns obtain Government contracts. Its purpose is to assure fair treatment of small business and it amounts to an appeal from a previous decision of the buying agency that the low bidder can not deliver a quality product on time.

Since the COC procedure delays Government procurement, time is of the essence. SBA believes this write-up will assist small concerns in making a timely response should they have the need for a COC. SBA notifies the bidder when a COC is required. When required, further details on just what is needed for an effective presentation of your firm's capabilities and appropriate forms will be supplied by your SBA regional office.

The Small Business Administration was authorized and directed by the Congress to certify that small concerns are competent to perform a specific Government contract.

Section 8(b)(7) of the Small Business Act of 1958, as amended, provides as follows:

"(b) it shall also be the duty of the Administration and it is hereby empowered, whenever it determines such action is necessary

(7)(A) To certify to Government procurement officers, and officers engaged in the sale and disposal of Federal property, with respect to all elements of responsibility, including, but not limited to, capability, competency, capacity, credit, integrity, perseverance, and tenacity, of any small business concern or group of such concerns to receive and perform a specific Government contract. A Government procurement officer or an officer engaged in the sale and disposal of Federal property may not, for any reason specified in the preceding sentence, preclude any small business concern or group of such concerns from being awarded such contract without referring the matter for a final disposition to the Administration.

(B) If a Government procurement officer finds than an otherwise qualified small business concern may be ineligible due to the provisions of section 35(a) of title 41, United States code (the Walsh-Healey Public Contracts Acts), he shall notify the Administration in writing of such finding. The Administration shall review such finding and shall either dismiss it and certify the small business concern to be an eligible Government contractor for a specific Government contract or if it concurs in the funding, forward the matter to the Secretary of Labor for final disposition, in which case the Administration may certify the small business concern only if the Secretary of Labor finds the small business concern not to be in violation.

(C) In any case in which a small business concern or group of such concerns has been certified by the Administration pursuant to (A) or (B) to be a responsible or eligible Government contractor as to a specific Government contract, the officers of the Government having

procurement or property disposal powers are directed to accept such certification as conclusive, and shall let such Government contract to such concern or group of concerns without requiring it to meet any other requirements of responsibility or eligibility."

The following listing of categories and kinds of information is provided to facilitate preparation of the documentation which you may provide in support of your COC application.

You are encouraged to address all the areas which are relevant to the proposed contract however it is not meant to imply that it is necessary to respond to every item in the listing. Also, if you know of other or additional information which you wish to have considered do not hesitate to include it. You must decide what information and what level of detail will best serve your own interest.

1. General Information

   A brief description of the history of your business. Include the following information.

   - Date operations were started
   - Date and nature of significant changes in the business.
   - Current form of ownership, i.e., corporation, partnership, sole owner.
   - Identify the principal products and services offered.
   - Description of any parallels and similarities between products and services presently offered and those required by the proposed contract.
   - A list of business references. Include principal civilian and all Government clients over the last three years. Include name, address, and telephone of client. Identify contract number, products or services, dollar value, beginning date and ending date.
   - Determination of the percentage of Government contracts relative to total volume as an average over the last three years.

2. Management

   A description of the ways in which the business is managed. Include the following information.

   - A description of the reporting relationships amongst the managers, supervisors, and key personnel.

   - A resume for management, supervisory and other key personnel.

   - A brief description of the following management functions.
     - contract administration
     - quality assurance
     - purchasing
     - legal counsel
     - production planning and control

3. Contract Performance Plan

   A written plan which shows how you intend to go about delivering the required products and/or services. Please include the following elements as part of your plan.

• Identification of the important events or actions which must be completed and when they must be completed.

• Description of the operations which must be performed. Describe the equipment needed for each operation (and the number of pieces).

• Identification and description of all the labor skills necessary to perform the contract. Show the number of people in each job classification who will be assigned to this contract during each time period.

• A breakdown of the current work force by department and job classification. Separately, show how many additional persons in each job classification will have to be hired to perform on the proposed contract. Explain how the additional personnel will be obtained and what the prospects are.

• An equipment list which shows all the major pieces of equipment now on hand which will be used on this contract. Include: name, principal uses, rating or capacity, important performance characteristics, and owned vs. rented vs. leased. If additional equipment is required, prepare a separate list showing all the preceding information and also provide information showing the steps taken or to be taken to obtain the equipment.

• A brief description of the existing facilities which are to be used. Include address or location, type of construction, source of utilities and maximum quantities available, and the areas (in sq. ft.) of the administrative, manufacturing, storage, and other spaces available. State whether additional facilities will be required. If additional facilities will be required, describe them and the steps taken to secure them.

• A list of materials, components, and equipment to be purchased, including names, telephone numbers and addresses of suppliers. Letters or wires of commitments giving terms and delivery dates must be included. Documentation provided must show that both the First Article and the Production delivery requirements will be met.

• A list of your principal subcontractor's names and addresses, including components, subassemblies and/or services to be supplied. Delivery schedule commitments, giving terms and delivery dates are to be included. State what percentage of the contract value is to be subcontracted.

4. Plant Loading

A description of the work load for the entire business including the proposed contract. Include contract numbers or equivalent, contract description, identification of deliverables, dollar value, manloading, start dates and complete dates. Include all firm business. Show how the proposed contract relates to your existing capacity in terms of personnel, equipment, space, processes, testing, etc.

5. Financial Information

Show that your business has the financial strength and liquidity

necessary to perform on this contract and other on-going business activities. Include the following information.

•A breakdown of the costs of performance with supporting data showing how the costs were determined. A typical classification will include the following:

Direct labor
Direct material
Other direct costs
Manufacturing overhead costs
General and administrative costs
Other indirect costs
Profit
Total cost to Customer

•A realistic projection of estimated costs from the current date to the end of the performance period. Two sets of cash flow projections are desired. One set is to show the projections for the total work load including this contract only. SBA Form 74B may be used for this purpose.

•A current balance sheet and a current income statement (not necessarily audited, but prepared by a professional in the field).

•A copy of a letter of credit from a recognized financial institution for an amount at least equal to the difference between the projected cash on hand and the projected peak cash requirements. The cash flow projections are a logical way to show what the peak cash needs are. Identification of an equally reliable alternative source of funds may be substituted for the letter of credit in certain circumstances.

6. Current and Past Performance

Information which shows your past and present contract performance. If the buying agency has expressed dissatisfaction with your performance as to delivery then you should provide the following kinds of information.

•A listing of all contracts which are delinquent as of the date of this letter. The listing for each item is to include the contract number, identification of deliverable items, total contract value, contractual delivery date, reasons for the delinquency, present status of work, actions currently under way to correct delinquency and expected final delivery date.

•A listing of those contracts which (within the last 24 months) were completed late (without client concurrence) or where your client has expressed written dissatisfaction with your performance. Provide contract description, contract number, contract value, award date, buying agency name, phone and address and the events and reasons for your client's dissatisfaction.

•A list of any contracts you have failed to complete. Provide contract description, contract value, award date, buying agency name, phone, and address, and reasons contract was not completed.

•A description of the specific changes you have made or which you

plan to make (and the date of execution of each change) which will ensure satisfactory performance on this contract and which will eliminate the need for future COC referrals. It is expected that the bulk of the changes will fall in the areas of organizational structure and staffing, plant and equipment, and financing arrangements.

C. Business Financial Status

1. Financial Profile

If you have existing bank or trade credit arrangements, list the name, address and telephone number of the bank(s) or agency(s), your contact person and their position, and the nature and amount of credit. The business financial credentials will be required as an integral part of the loan package as well as for some contracts.

a) Balance Sheets

Copies of Balance Sheet and Profit and Loss Statement for each of three preceding fiscal year end periods should be available.

b) Federal Income Tax

Copies of Business Federal Tax returns, including schedules, filed in last 3 years should be available. Be sure they are signed and dated.

D. Bonding Requirements

Does business have current bonding capacity (if applicable)? If yes, provide the name of the surety bonding agent and your bonding level, both single job and aggregate. Provide the amount of the largest bond received. If not, the following apply:

1. General Financial Statements Requirements

All financial statement submitted by an applicant must show the applicable date of the information given. They also must be signed by the proprietor, a partner, or an authorized officer of the applicant, and date of signing indicated, unless they are prepared by an outside accountant and properly certified. Statements that are disclaimed by the preparing accountant are not considered to be "properly certified". Qualified opinions may be accepted as "properly certified" only if the items excepted from accountant's opinion constitute an insignificant portion of applicants total assets. Must be signed by preparer and principal.

a) Contractor and Affiliate(s) Business Financial Statements Requirements

• New business opening or latest available financial statements

• Existing business Past 3 years annual statements, or complete Federal Income Tax Returns

Until further notice, business financial statements requirement from the contractor are as follows:

- Contracts $500,000 or more

  - Annual - audited financial reports, as defined by AICPA, prepared by an independent public accountant.

  - Semi-annual - Review financial report, as defined by AICPA, prepared by an independent public accountant.

- Contracts $100,000 - $499,999

  - Annual - Review financial report, as defined by AICPA, prepared by an independent public accountant.

  - Semi-Annual - Compilation financial report, as defined by AICPA, prepared by an independent public accountant.

- Contracts up to $99,999

  - Annual - Compilation-type financial report prepared internally or by an independent public accountant.

  - Semi-Annual - Compilation financial report, as defined by AICPA, prepared by an independent public accountant.

b) Personal Financial Statements

- For sole proprietorships - on the owner and individual indemnitors.*

- For partnerships - on each partner and individual indemnitors.*

- For corporations - on each officer, director or management or have at least 20% ownership and are individual indemnitors.*

*Equal Credit Opportunity Act If additional security/collateral is needed or if an indemnitor's financial capacity is insufficient to consider issuing a surety bond, an additional indemnitor may be necessary which could include a spouse if the applicant selected the spouse as the other indemnitor.

c) Preparers of Financial Statements/Independent, Qualified, Etc.

A public accountant is independent when he/she or immediate family has no material, managerial or financial interest directly or indirectly in applicant's business operation other than as an accountant. He/she is qualified unless there is contrary evidence, when he/she is either (1) certified, licensed and/or registered in the State or local jurisdiction or (2) has been a public accountant for a minimum of five

years and is accepted by SBA.

d) Types of Financial Statements

• Audited year end statements. Perhaps the most important statement the independent auditor can make is the one in which he expresses an opinion regarding your financial statements viewed as a whole. Because of the importance of this statement to the investing and lending public and the responsibilities the independent auditor assumes in expressing it, that opinion usually takes the following form:

"We have examined the balance sheet of X Company as of June 30, 19__, and the related statement(s) of income and retained earnings for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we consider necessary in the circumstances.

In our opinion, the accompanying balance sheet and statement(s) of income and retained earnings present fairly the financial position of X company at June 30, 19___, and the results of its operations for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year."

The ABOVE statement is an unqualified opinion. It can be made only when the independent auditor has formed the opinion on the basis of an audit made in accordance with accepted auditing standards, where presentation conforms with generally accepted accounting principals applied on a consistent basis and includes all informative disclosures necessary to make the statement not misleading.

• Accountant's Opinions. An accountant's unqualified opinion is his concise statement that the data submitted fairly represents the financial condition of the business. Financial statements audited by accountants which are covered by a qualified opinion (e.g.; the data was not verified) or when the accountant is otherwise disclaiming responsibility for the fairness of the statements and data, should be certified by the applicant or an authorized officer of the applicant corporation.

• Applicant's Certification or Opinion. An applicant's certification is a statement by the owner, a general partner, or an authorized officer that to the best of his knowledge the data submitted fairly represents the financial situation. The applicant's certification will be required on all year-end statements not certified by a qualified public accountant.

• Compilation of Financial Statements. Presenting in the form of financial statements, information that is the representation of management (owners) without undertaking to express any assurance on the statements. (The accountant might consider it necessary to perform other accounting

services to enable him to compile financial statements.)

Compilation-type financial reports must, as a minimum, include the following information:

(1) Balance sheet
(2) Income (Profit and Loss) Statement
(3) Explanation of changes in the capital accounts -- "Statements of Changes in Financial Position"
(4) Appropriate footnotes explaining asset, liability, and income statement items.
(5) Cover letter signed by preparer explaining the scope of accounting work in preparing the statements.

• Review of Financial Statements. Performing inquiry and analytical procedures that provide the accountant with a reasonable basis for expressing limited assurance that there are not material modifications that should be made to the statements in order for them to be in conformity with generally accepted accounting principles or, if applicable, with another comprehensive basis of accounting. (The accountant might consider it necessary to compile the financial statements or to perform other accounting services to enable him to perform a review.)

• Interim Statements. Interim statements may be accepted as presented with the accountants or the borrowers certification as to its being correct and complete.

e) Comparison of Types of Financial Statements

The objectives of a review differs significantly from the objective of a compilation. The inquiry and analytical procedures performed in a review should provide the accountant with a reasonable basis for expressing limited assurance that there are not material modifications that should be made to the financial statements. No expression of assurance is contemplated in a compilation.

The objective of a review also differs significantly from the objective of an examination of financial statements in accordance with generally accepted adding standards. The objective of an audit is to provide a reasonable basis for expressing an opinion regarding the financial statements taken as a whole. A review does not provide a basis for the expression of such an opinion because a review does not contemplate a study and evaluation of internal accounting control, test of accounting records and of responses to inquiries by obtaining corroborating evidential matter through inspection, observation or confirmation, and certain other procedures ordinarily performed during an audit. A review may bring to the accountant's attention significant matters affecting the financial statements, but it does not provide assurance that the accountant will become aware of all significant matters that would be disclosed in an audit.

f) Minimum Requirements for Acceptable Applications

(1) First Application

Contractor Furnishes to Surety:

- Application (on SBA Form 994)
- Personal History of Principals (on SBA Form 912)
- Financial statements on the business
  - New business - opening balance sheet with cover letter or latest available complete F/S
  - Existing business - Past 3 years annual statement or complete Federal Income Tax Returns (Principal and Preparer must sign and date the cover letter)
- Status of work in process (SBA Form 994F)
- Bank's letter of financing available (collateral, total amount of Line of Credit, balance owing, balance available)
- Surety's Application Form (contractors questionnaire) including resumes on key persons in the business.
- Personal Financial Statements - only on persons personally indemnified on GIA (signed and dated)
  - Sole proprietorships - financial on the owner (and spouse)
  - partnerships - financials on each partner (and spouse)
  - corporations - financials on each officer, director stockholder and indemnitor (and spouse of each)
- General Indemnity Agreement (on Surety's form)
- Statements required by Laws and Executive Orders (sign SBA Form 1261)
- Explanatory information, including 3 past years of financial statements on any other business in which there is common ownership, management or control with the contractor's businesses/affiliates
- Contractor's guarantee fee check (for final bonds only)
- Business Plan
- Form 1624 - Debarment Notice

(2) Subsequent Applications

Contractor Furnishes to Surety:

- Application (SBA Form 994)
- Annual Financial Statements (if due since last application)
- Semi-annual Financial Statements (if annual financial statement is over 6 months old)
- Status of Work on Hand, at least a quarterly update (on SBA Form 994F)
- Bank's Letter of Financing Available (at least annually) - need bank line updated every 90 days
- Personal Financial Statements of Principals (if due since last application -- required annually)
- Annual financial statements on affiliated businesses (if due since last application -- required annually)
- Contractor's Guarantee Fee (on final bonds only)

(3) Surety Furnishes to SBA on all Submissions

- All of the Contractor's submission to surety
- Guarantee Agreement (SBA Form 990); Name on 990 must match name on GIA.
- Underwriting Report, fully complete (SBA Form 994B)
- Credit Report or complete information in Block 9(b) of SBA Form 994B

E. Bankruptcy Information

Has business or any board member or officer been involved in a bankruptcy or insolvency proceeding within the past SEVEN years? If yes, the details should be available.

IX. NOW I KNOW WHAT TO DO, CAN I ACTUALLY DO IT?

The question is a good one. Although we may know HOW to do something, that doesn't necessarily mean we will be SUCCESSFUL doing it. Developing an "attitude of success" is critical if we intend to make the best use of this information.

A. Elements of High Performance Thinking

It has been discovered that successful people tend to think in certain ways, ways which assist them in attaining their goals.

1. Developing a positive self image

They "see themselves" performing a task successfully and "talk to themselves" in ways that build that positive self image.

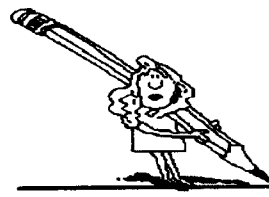
Take a moment to consider something you think you do well (ski, golf, cook, paint, etc.) If we think we do something well, we hold a positive self image of ourselves performing that task - and, when our performance in that area is less than we expected, we tend to "talk to ourselves" in terms of what we will do NEXT time to insure the desired performance level. Now take a moment to consider something you think you don't do very well. Chances are you just got a "picture" of yourself in your mind performing that task poorly. This is where it becomes interesting. In these instances, when our performance level is lower than desired, we do NOT talk to ourselves in terms of what we will do next time to make it better . . . we tend to talk to ourselves about what a poor job we've done, how we have always done this task poorly, how it never seems to get any better, etc. This may not seem like a big difference, but let me assure you it is major! Until we "see ourselves" as successful environmental contractors, it won't happen. You may be familiar with the term "Seeing is believing" . . . a truer statement might be "Believing is seeing". Until we believe we are capable of competing in this arena of business, it will never happen (we will never "see" it). We need to begin to tell ourselves that we have the resources, capabilities, contacts - even if we don't at this point! Remember, believing is seeing!

a) *EXERCISE:* Self image description

In one or two sentences, describe your "self image" (how you "see yourself"). It quickly becomes apparent that we have multiple self images - we see ourselves, for example, as an innovative business owner; a physical fitness advocate; a supportive parent, etc. For purposes of this exercise, however, limit your descriptions to how you see yourself as a proposal writer, a government contractor, preparer of loan requests and/or business plans, etc. - roles that are related

to your business obtaining a government contract.

HOW DO YOU "SEE YOURSELF"?



YOUR WORK

2. Committing to active goal setting

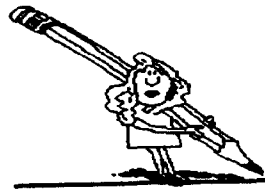
   They set goals, frequently without limiting themselves to the resources which are currently available to them and without knowing where those additional resources might be found.

   Someone has said that people spend more time planning their vacations than they spend planning their lives! This is probably true, since fewer than 3% of the population actually write down their goals - however, the ones who do are some of this nation's highest performers.

a) ***EXERCISE:*** Business goals

List your business goals in the area of government contracting.

LIST YOUR BUSINESS GOALS FOR THE YEAR



YOUR WORK

B. Guidelines to High Performance Thinking

One of the greatest things about knowing how high performers think is also knowing that these high performance thought patterns can be learned.

1. Positive self image

The way we "see ourselves" (our self image) is a direct result of how we "talk to ourselves" (our thoughts - and sometimes, for those of us who talk to ourselves, our words!) and how we "perform" (our behavior).

Think of these three elements as constituting a cycle with each element being the cause as well as the result of the other two - - *Talk, See, and Behave.*

The self image is rather like an automatic pilot in that it allows us to act without having to think about it much (we breathe, climb stairs, rock a child, etc. without having to consciously consider our actions). We "know how we are" in front of a crowd, on the golf course - or writing a proposal for a government contract. Once we "know how we are", we then go out and act like ourselves - it's easy! We know we panic in front of a crowd so, given an opportunity to speak to a large group, we immediately panic. We know we have a bad hook on the golf course, so we go out to the golf course and hook a few balls! We know our proposal will never be the "winning one" so we prepare it, "knowing" all along that it is probably a waste of our time.

The problem with "knowing how we are" is that it then causes us to behave that way - even if our goals require different behavior. We set goals we cannot see ourselves achieving - and then wonder why we can't seem to achieve them; never understanding how powerful our "automatic pilot" really is.

The key to entering that cycle lies in knowing where the optimum entry point is. We can intercept the cycle at the point of our behavior (attempting to change that behavior by exercising large amounts of will power - extremely difficult for long term, lasting change, because we are simply "overriding" our automatic pilot rather than "changing the settings") or we can intercept the cycle at the point where we think about and tell ourselves "how we are". We can start changing those settings by telling ourselves that we are confident in front of a crowd, that our drives go straight down the fairway and that we are successful in obtaining government contracts. . . thus starting to create a new "picture of ourselves" (a new self image) which eventually becomes the new "setting" for our automatic pilot.

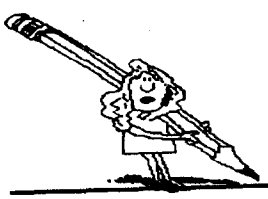
Have you ever heard the phrase, "As a man thinks, so is he"? It is true - theologically, psychologically, physically. In order to think like a high performer, we need to "see ourselves" successfully attaining our goals and recognize the power of our thought and words (and the words of those around us) to create

our self image.

a) *EXERCISE:* Positive statements

Write down 10 positive statements about "how you are". You may choose to include statements which are not yet true about you, but will be true when you reach your goal, i.e. "I am proud of the winning proposals I write."

WRITE YOUR 10 POSITIVE STATEMENTS



YOUR WORK

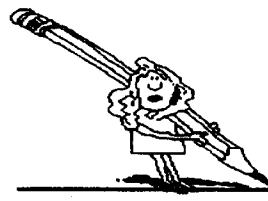
2. Goal setting

As with most things, there are "right" and "wrong" ways to goal set. Probably a better choice of words would be "effective" and "ineffective". Many people set goals but experience little success and they never understand why they have "failed" - after all, they goal set to "succeed". Effective goal setting contains specific elements which enable individuals to overcome some of the obstacles we face in reaching our stated goals, including the obstacle of sabotaging our own success whereby we subconsciously prevent ourselves from reaching a goal which we, on the conscious level, truly desire.

a) *EXERCISE:* Addressing unachieved goals

Exercise: Recall goals you have set for yourself but which you failed to attain. Make a list of those you would still like to achieve.

GOALS, UNACHIEVED, BUT STILL DESIRED



YOUR WORK

b) Elements of successful goal setting

Now, let's examine the elements which will help make us more effective ("successful") goal setters. We need to:

(1) Set goals in all areas of our life.

The truth about goal setting is it works. In fact, it works so well that you will find that areas in which you haven't goal set tend to become "problem areas" after a time. So - even if things are going well in an area - include it in your goal setting to insure it continues to go well. Most of us tend to focus our goal setting on work - a better, more balanced approach includes all areas of your life which are important to you: family, spiritual, health, etc.

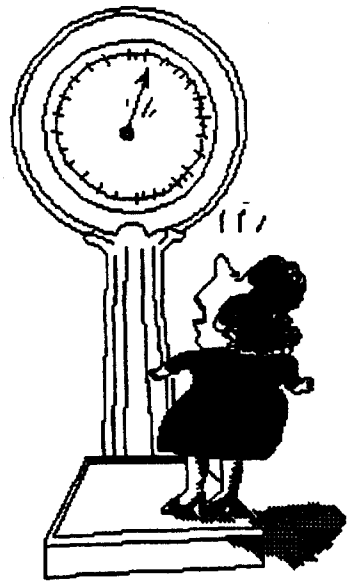
(2) Write our goals down. Literally.

There is something about actually writing them down that helps you attain them. It may be that it forces you to become very clear on what it is you want to attain, to be specific. It may be that the clarity of this "picture" allows your subconscious to go to work for you, thus helping you reach that goal even when you aren't aware you are working on it. Whatever it is, it works. Goal set to be in that top 3%!

Be a Winner!

(3) Provide ourself with feedback on a regular basis.

We need to know where we stand in relation to where we want to be in order to create the drive and energy we need to reach our goals. As human beings, we have a need for order (the definition of "order" varies considerably, I might add!) and it isn't until things are "out of order" that we get busy and "fix it". And then we only fix it to the level where we are once again comfortable - we don't fix it "better" than the picture we hold in our minds.



We must provide ourselves with feedback so we will know if we are progressing toward the goals we have set.

When it reaches the point where we are uncomfortable with the "order" of things (and, remember, the definition of "order" varies considerably among people!), we will do something about it - but not until then. We will struggle along with the clutter until we think it needs to be "fixed". At that point we will straighten things up - but we seldom go to extremes; after all, some clutter looks "right" to us!! The point is, however, if we never look at our desk, we will never know it is "out of order" (i.e. cluttered).

For example, have you ever faced a desk so cluttered you couldn't find anything?

(4) Regularly practice visualizing

Picture in your mind the situation when the goal has been attained. Until you "see" yourself doing something successful, it is difficult to actually do it. As we talked about earlier in the section on self image, most people, when they want to change a behavior, tend to focus on the behavior itself rather than the self image which "causes" that behavior. Although it is possible to change behavior by focusing on the behavior itself, a much more permanent change is realized when you focus on changing your self image. Visualizing helps you begin to see yourself successfully and comfortably in a new environment - so - when you get to that new environment, you are successful and comfortable. After all, you have "seen

yourself" in this situation millions of times and done very well! By the way, professional athletes frequently use this method - rather than actually hitting a tennis ball, skiing the slalom course or diving off the high board, they visualize themselves doing it successfully; essentially training their body to a high level of performance without the wear and tear that results from a physical workout.

When you visualize, follow these suggestions:
1) Include all of your senses - in addition to "seeing" yourself in the situation, think also about what you are hearing, smelling, feeling, thinking. The more "realistic" you can make the visualization, the better.

2) Select optimum times to practice - there are times when our minds are most receptive to the new image we are creating. The best times to practice your visualizations are first thing in the morning and just prior to going to sleep. The important thing is that you be relaxed and uninterrupted.

3) Be involved in the visualization - in other words, you are "in" the situation, not observing it. If you are, for example, visualizing speaking to an audience, you would "see" the audience's faces, the podium,your notes, your hands; you would hear the noise of the air conditioner, the rustling of paper; you would smell the odor of the food from the banquet being served next door, etc.!! You would NOT see you,standing in front of the audience as if you were watching a movie. You need to be IN your visualization as a participant, not as an observer.

(5) Use constructive motivation

Do things because we WANT to, not because we feel we HAVE to. This may seem pretty elementary, but it is surprising how many of our goals are not ones we particularly want to achieve. We set many of our goals because we feel we have to achieve, to conform, to prove ourselves, to obtain approval, etc. - and those are frequently the most difficult to attain. The reason is threefold: when we feel we "have to" do something we tend to react in three very predictable ways, none of which are conducive to goal achievement. We tend to work more slowly, less carefully and to procrastinate. These aren't, of course, conscious actions on our part; it just seems to be something which occurs when our subconscious hears that we "have to" do something. Therefore, make sure your goals are things you want to achieve and that you stay focused on why you want to achieve them, i.e. you don't go to work at 5 AM because you "have to", you go because you want to pay the mortgage on the house in which you and your family live. You don't have to pay the mortgage, of course. There are alternatives. However, if none of the alternatives look as desirable as paying the mortgage, you are paying it because you want to; not because you have to. Just change the words you use. You no longer "have to" go to work, write that proposal, attend that meeting, etc. - you are

the words you use. You no longer "have to" go to work, write that proposal, attend that meeting, etc. - you are doing things because you "want to" - that simple change makes a remarkable difference in how you approach the tasks set before you each day.

3. Unconstrained goal setting

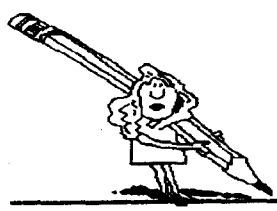
Don't be afraid to try some "unconstrained goal setting" where you focus entirely on the end result with no idea as to how you are going to attain it.

Too many people restrict themselves by setting goals based on the resources currently available to them. Try to set unconstrained goals - somehow the resources tend to "show up" when you are not limiting yourself by the way you think. When we don't "need" additional resources, we tend not to see them when they present themselves to us; however, if we set a goal and haven't got the necessary resources, we become very creative about finding them! It works the same way when you decide to buy a new car - until you decided you wanted one, you didn't think much about cars; now you are bombarded with information! "Your car" appears on TV shows, is advertised in the paper, pulls up next to you at the stop light, passes you on the freeway, receives glowing reports from auto magazines, etc. That is the way unrestricted goal setting works. If you know what you want, you will see things that will help you attain it - things that, previously, you never even noticed.

4. *EXERCISE:* Realistic goal setting

Using the information you now have about effective goal setting, set at least one goal in each area of your life which is important to you. The goal must be written, specific, measurable and one which you WANT to achieve! It wouldn't hurt to also list ways in which you are going to obtain feedback on your progress. And, don't forget to use visualization - to "see yourself" successfully achieving this goal (even if it seems pretty far-fetched initially! Remember, we are changing those settings on our automatic pilot and it thinks it would just be "easier" to leave things alone!)

LIST YOUR BUSINESS GOALS FOR THE YEAR



YOUR WORK

X. HOW DOES THE MENTOR-PROTEGE PROCESS ACTUALLY WORK?

The SEE Mentor-Protege program is structured to identify and match MSWEs who are eligible for subcontracts to participate in the subject program.

An MSWE can have more than one mentor. A mentor firm, for example, is defined as a contractor or subcontractor eligible for environmental contracts who received $25 million or more in environmental contracts or subcontracts during the preceding fiscal year and can demonstrate the capability to assist in the development of protege firms. The mentor firm must receive the approval of the State Department of Health and the Department of Energy/Environmental Protection Agency (DOE/EPA) before participating in the SEE Program. The protege will not be considered an affiliate of the mentor firms solely by receiving assistance. The protege firm must first be awarded a contract on the merits of the protege's ability and performance.

The SEE Mentor-Protege program requires an agreement based on performance criteria with the protege firm describing: 1) the assistance the mentor is offering, 2) a development program for the protege that verifies the protege's progress and anticipated number and type of subcontracts, and 3) a termination clause.

The SEE Mentor-Protege Program, if widespread, can develop successful MSWEs. In order for it to be successful, the win-win management philosophy must be continued -- cooperation, assistance, and unity among industry, MSWEs,State Departments of Health, EPA and DOE.

A win-win management philosophy is necessary for the success of the SEE Mentor-Protege program. Specifically, MSWE participation in environmental projects can increase without sacrificing the high performance standards required of contractors by stringent environmental laws.

The SEE Mentor-Protege Program will focus on performance, competitiveness, and deliverables, through cooperative ventures between the Primes and MSWEs. This mentoring model will include incentives to MSWEs and Primes to promote participation in the program. Following training and Prime Contractor mentoring of MSWEs, successful joint ventures can provide the incentive to continue this win-win relationship.

The Mentor will develop a detailed plan which will describe in detail the Tasks, Schedule, and Cost (TSC) against which the Protege must perform in order to meet the contract requirements. The performance criteria will be placed against TSC at the onset of the contract to ensure that both the Mentor and Protege have a clear understanding of each others expectations and needs.

A. Performance Criteria

In order to provide a measuring stick for the mentor-protege program, performance criteria is a must and should include an initial benchmark as well as intermediate and final points of measurements. Without performance criteria, it would be difficult to measure the progress of the MSWEs in learning to be more competitive, or to realize increased performance with quality deliverables.

The criteria should include, but not necessarily be limited to: project planning, technical competence and innovation, schedule and cost, reporting, resource utilization, and effort.

1. Project Planning

   • Development of plans (e.g., work plans, management plans, etc.)
   • Development of project cost estimates and schedules
   • Screening for organizational conflicts or interest
   • Elimination of duplicative efforts
   • Scheduling and budgeting multiple projects within cost and priority

2. Technical Competence and Innovation

   • Effectiveness and thoroughness of analyses
   • Meet plan goals and objectives
   • Development of alternatives and implementation of courses of action
   • Adherence to agency and other Federal regulations, procedures, and guidelines (e.g., health and safety, chain-of custody/document control, CERCLA and RCRA regulations, subcontracting, etc.)
   • Provision of technical support to U.S. Army COE, states, and other Agency or Federal Offices
   • Creativity and ingenuity in approach (e.g., cost-effective or technical innovative control/remedy schemes)
   • Expert testimony

3. Schedule and Cost Control

   • Maintenance of planned budgets and schedules (e.g., prompt reporting of projected cost and schedule variances)
   • Adjustment of schedule and priority requirements (e.g., ability to expedite schedules)
   • Ability to minimize costs

4. Reporting

   • Timelines of deliverables (e.g., progress reports, project reports, work plans)
   • Clarity and thoroughness of project documentation (e.g., identification of problem and recommended solution, discussion of alternatives)

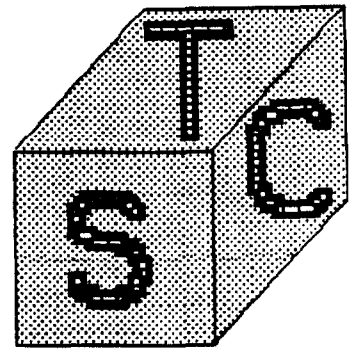
5. Resource Utilization

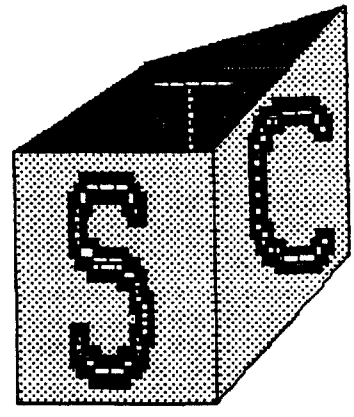
   • Suitability of staffing, recruiting and training of personnel
   • Ability to obtain subcontractors and outside consultants
   • Attention to equipment maintenance and accounting, minimization of travel costs, etc.

6. Effort

- Responsiveness
- Preparedness and mobilization of resources for contract and assignments
- Regularity and effectiveness of day-to-day support/communication with regional personnel and other organizations and individuals involved with site
- Performance in special situation (e.g., adverse/dangerous conditions or expedited time frames).

As seen from the above inter-related criteria, there is a direct relationship among Task, Schedule, and Cost. The critical nature of the balanced relationship can best be demonstrated by the model to the right (balanced -- top illustration). This model clearly demonstrates the impact of achange in any one of the elements. For example, a change in task willobviously cause a change inSchedule and Cost (out of balance -- bottom illustration). It is therefore imperative that you have the management tools and techniques inplace to manage these dynamics. The challenge of today is managingthe dynamics.





B. Performance Criteria-Based Expectations

The performance criteria can be utilized at the onset to define expectations for both the mentor and protege. The protege might consider a performance contract; i.e., if performance is greater than expected or defined, they might receive a greater share of the profits or less if performance is less than expected.

1. *EXAMPLE:* Performance Expectation Worksheet

RATING	PROJECT PLANNING	TECHNICAL COMPETENCE & INNOVATION	SCHEDULE & COST CONTROL
5 Outstanding	Ensures that cost/ time is minimized to meet technical direction specification. "Fast tracking" or streamlined approaches implemented as necessary.	Innovative technical solution applied. Results may establish state of the art approach to address problems. Exceeded original established remedial action goals and objectives.	Original schedule met in spite of major operational impediments. Services completed ahead of schedule at a reduced cost to the Government than originally estimated.
4 Exceeded Expectations	Provides for a significant cost/time savings and contains adequate approaches to address requirements contained in the plan.	Quality was above average of experience with similar type of contractors over past two years.	Original schedule met in spite of minor operational impediments. Services completed on schedule at a reduced cost to the Government.
3 Satisfactory	Adequate to meet requirements specified in Statement(s) of work, and goals and objectives of the program and/or contract requirements.	Quality was average of experience with similar type contractors over past two years.	Original schedule met. Cost was reasonable considering scope of effort.
2 Marginal	Work assignment or contract specifications not completely addressed. Cost and/or time disproportionate to required level of effort.	Quality was below average of experience with similar type contractors over past two years.	Original schedule slipped without adequate warnings or justification. Avalable cost savings not taken advantage of.
1 Unsatisfactory	Incorrect identification of requirements needed to meet SOW. Inadequate schedule to provide quality service or product or service.	Lack of technical competence in any of major technical or management areas addressed.	Activities completed so late as to have resulted in loss of utility or negatively impacted program.

RATING	REPORTING	RESOURCE UTILIZATION	EFFORT
5 Outstanding	Reports provide much insight into key problems and potential solutions as to serve as master plan for collective action.	All of the contractor resources are applied to minimize costs and time, while enhancing overall work quality.	Contingency plans always developed. Response actions taken in extreme weather conditions on high risk areas. Personnel effort well beyond contract requirements.
4 Exceeded Expectations	All reports are of consistent high quality both in content and presentation. No rewrite of report required by EPA personnel.	One or a few of the contractor resources are utilized efficiently, resulting in cost or time savings and providing specified quality of work.	Effort was below average of experience with similar type contractors over the last two year under similar circumstances.
3 Satisfactory	All required reporting were delivered on time and with contents as specified.	Staffing, subcontracting, equipment, and other resources (e.g., travel adequately utilized to meet project and contract requirements.	Resource monitored in sufficient time to meet established budget/schedule. Regular communication and instruction with agency personnel.
2 Marginal	Required reports were delivered within 15 days after the date but without adequate justification or warning. Contents of report not as specified.	One or a few of contractor resources are not used efficiently, resulting in cost overruns and time delays.	Effort was below average of experience with similar type contractors over the last two years under similar circumstances.
1 Satisfactory	Required reports delivered more than one week late without adequate justification or warning. Contents of reports inadequate to permit interpretation of problem or action.	Consistent poor utilization of resources which hinders the implementation of the program.	Operational impediments unaddressed, and adequate warning or justification was not provided or was unacceptable.

C. Performance Criteria Rating Worksheet

1. *EXAMPLE:* Performance Criteria Rating Worksheet

CONTRACT_____ NO._____
PROJECT_____
CONTRACTOR_____
SUBCONTRACTOR_____

PERFORMANCE CRITERIA	RATING	SUPPORTING COMMENTS
	5 to 1	
PROJECT PLANNING	____	
• Development of Plans	____	
• Dev Project Cost Estimates & Schedule	____	
• Screening for Organizational Conflicts	____	
• Elimination of duplicative efforts	____	
• Scheduling & budgeting multiple projs	____	
TECH COMPETENCE & INNOVATION	____	
• Effectiveness of analyses	____	
• Meet plan goals & objectives	____	
• Dev of alternatives & implementation	____	
• Adhere to Regs & Procedures	____	
• Provision of technical support	____	
• Creativity & ingenuity in approach	____	
• Expert testimony	____	
SCHEDULE & COST CONTROL	____	
• Budget (Hours & Cost) Maint.	____	
• Priority/Schedule Adjustments	____	
• Cost minimization	____	
REPORTING	____	
• Timeliness of deliverables	____	
• Clarity	____	
• Thoroughness	____	
RESOURCE UTILIZATION	____	
• Staffing	____	
• Subcontracting	____	
• Equipment, Travel, Etc.	____	
EFFORT	____	
• Responsiveness	____	
• Mobilization	____	
• Day-to-Day Operations	____	
• Special situations (e.g., adverse/ dangerous conditions	____	

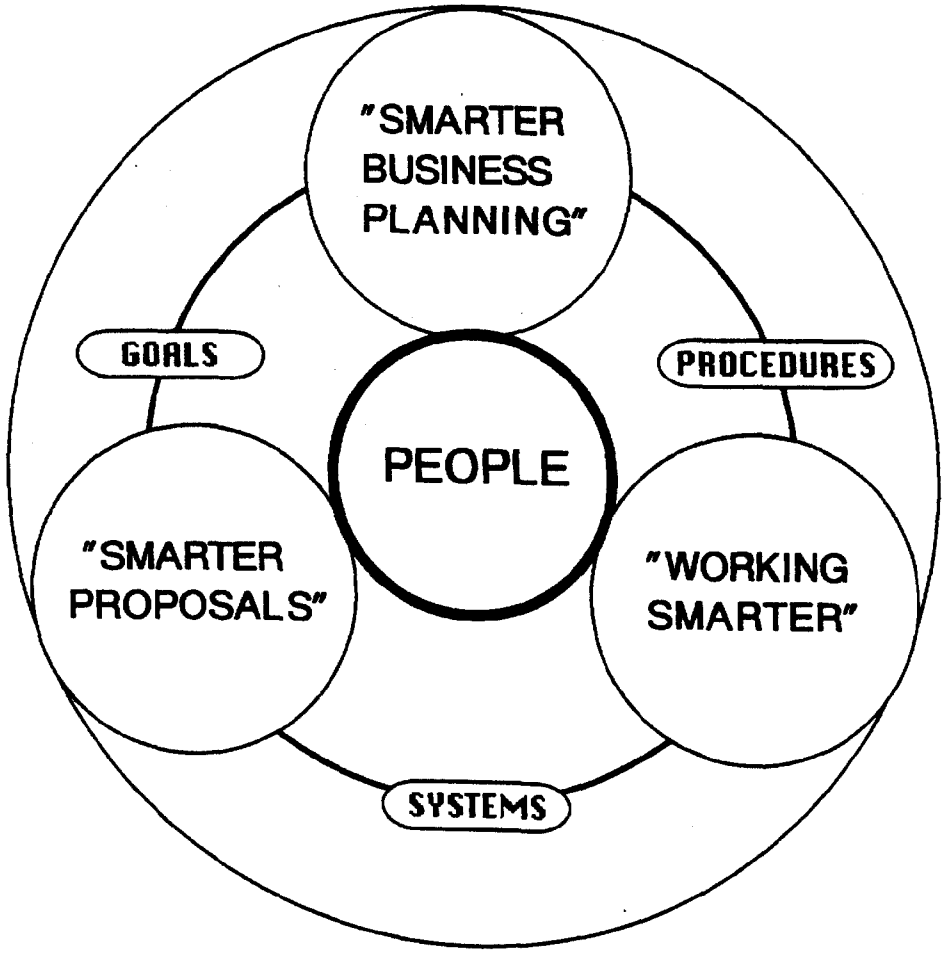
XI. WHERE'S THAT ROADMAP YOU PROMISED?

A. "Smarter Business Cycle"

The "Smarter Business Cycle" is that roadmap which will provide a process to define, develop and implement effective management tools as well as the needed systems in order for MSWEs to become Total Quality Management environmental contractors. These tools/systems will, in providing accurate and pertinent data, effectively enable timely and profitable decisions and can assist in attaining revenue goal(s). The "Smarter Business Cycle" process focuses on working with personnel, as directed by management, to implement the developed systems and management tools, train, evaluate, and follow-up. CSI's training model incorporates the THREE "E's" of training - - Explanation, Example, and Exercise whereby CSI provides the Explanation through lecture, with supporting Examples, and finally the Exercise during which the student develops the needed management tools to support the newly learned proven management techniques.

1. "Smarter Business Cycle" Model

There are three basic elements of the "Smarter Business Cycle" - - "Smarter Business Planning", "Working Smarter" and "Smarter Proposals".



2. "Smarter Business Planning"

"Smarter Business Planning" will enable the business to set specific measurable, attainable goals and develop a detailed step-by-step "how to" process to achieve those goals. In addition, the business will be provided with a clear sense of direction. This process will enable the business to determine where it is today -- "what is". Through brainstorming analysis, it will enable the business to determine where it "could be". Thus, resulting in where they "should be" tomorrow. This process provides the business with a multi-year cash flow projection. The "Smarter Business Plan" will enable the business to develop simple procedures/action plans to carry out its "smarter business plan".

a) Items to include in the plan

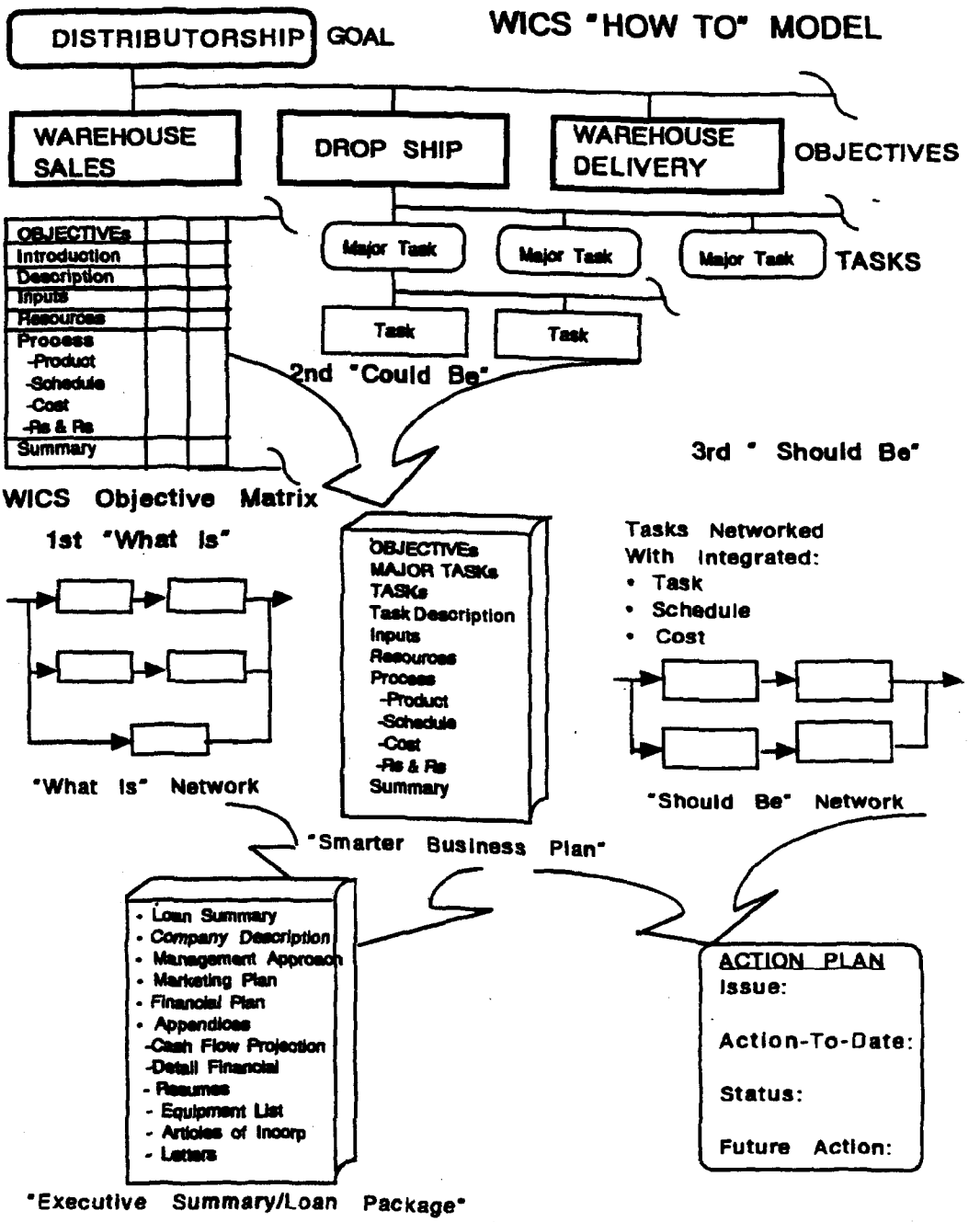
The plan, at a minimum, should consider in detail:

- Clear task definitions
- A schedule for individual/integrated tasks
- An associated cost of each task as well as the integrated task
- Individual accountability for task accomplishment
- Critical milestones along the way to enable measurement of your accomplishments.
- A cash flow projection
- Integration of task, schedule, and cost
- Action Plans to implement, monitor, status, and report

b) WICS Model

The "Smarter" Business Plan should contain the 1) goal and objectives, 2) definition of the tasks, 3) sequence of the tasks, 4) prerequisites for each task and 5) identification of the individual/agent/department responsible for performing each task. The schedule and cost along with the summary should also be generated as well as detailed Action Plans to monitor, status and report on the progress of the business plan.

To enable this process, a simple model was designed to utilize in walking you through the process. The WICS Model - "What Is, Could, Should be".



The three major phases of this model are:

- "What is" - What is in place today
- *"Could be" - Brainstorming*, what could be with analysis
- "Should be" - Analysis results of what you plan to accomplish

Whereas, at a minimum, business plans should contain the following:

- Description of Business
- Major Product/Service
- Ownership
- History
- Company Today
- Company Tomorrow
- Start-up Description
- Customer Base

"Smarter Business Plan" enhances the final product by including eight (8) additional elements:

- Task Flow to Implement
- Schedule to Implement
- Cost to Implement
- Estimating Model (e.g., labor rates)
- Management Plan (approach and organization)
- Marketing Plan (both a conceptual understanding and practical application of specific marketing efforts)
- Financial Plan (from how to read financial statements to actual preparation of a loan package)
- Action Plans to Implement (clearly delineated and qualifiable schedule of events to provide for subcontractor's contractual compliance)

c) Executive Summary

The "Smarter Business Plan" should culminate with a 10 or 12 page Executive Summary which also serves as a loan package.

Once the "Smarter Business Plan" has been developed, an Executive Summary should be developed. A more convincing loan package can then be generated.

The "Smarter Business Plan" Executive Summary and the loan package are virtually one and the same. Once the "Smarter Business Plan" has been completed, the Executive Summary can then be pulled from the Plan.

(1) ***EXAMPLE:*** Loan Request

Loan Amount: Credit line of $00,000/month

Purpose: The credit line loan will be used to support a THREE-year contract with the (Contractor's Name) to (Brief description of project) for an estimated $0,000,000 and an existing Contract Change Notice with the (Contractor's Name) for $00,000. The subject contract payment schedule is in progress payments (cost) with profit at milestone delivery.

Term: 6-9 months as driven by contract progress payments and profit.

Rate: 00% (1.5-2.0 points above prime)

Value: See bank equipment list

Sales Schedule: See Cash Flow Projection

Repay Plan: The loan amount will be repaid from _____ fees, __(List Revenues to be used for repayment)_____, _____, and_____.

d) General Information

(1) Purpose

This document provides insight as to how __(Company Name)__ plans to achieve the revenue goal set as derived from a structured "Smarter" Business Plan analysis and as depicted on the Cash Flow Projection.

(2) Objective

To convey ____(Company Name)_____ "Smarter" Business Plan -- marketing, sales, financial and management approach to depict to its associates, suppliers, customers, and financial resources that its business goal is achievable and low risk.

(3) Scope

This portfolio contains the ideas which define _____(Company Name)_____ as an established competitive ____(Type of firm)____ firm which deals in __(Products/Services)__; _____; _____, _____, and_____.

This document is the executive operating plan for __(Company name)__. It contains the Company description, history, the company today, plans for tomorrow, the incorporation, management structure of company, marketing approach, and cash flow projection. The financial status and proposed loan repay plan are also included along with the officer's resumes.

e) Goal

__(Company Name)__ revenue goal for 1991 is to have gross sales in excess of $000,000.

f) Objectives

The objectives for achieving (Company Name's) goals are:

__(Objective #1 and revenue)_____
__(Objective #2 and revenue)_____

__(Objective #3 and revenue)_____

g) Company Description

Our major purpose at __(Company name)__ is to provide our clients with a quality service in ___(Your Company's major

product/service . In addition, we also provide (List other products/services) , and _____.

The first (Major purpose of your company) _____

The second (Major purpose of your company) _____

The third (Major purpose of your company) _____

(1) History

(Company name) is a corporation initiated by _____ (Name of Individual who started company) for state-of-the-art business technology transfer to small and mid-market businesses.

The first Board of Directors meeting of (Company name) , was held on (Date) . The Company focus has been in the development and enhancement of minority and women businesses while working with the respective Chambers.

The Company has completed numerous contracts with small companies and a few with major entities.

One of the major contracts that (Company name) . completed was with (Give details of contract) to _____, _____, and _____.

(2) Today

(Company name) is presently under contract with the (Customer name) to develop _____ (Whatever product or service you provide). The contract involves:
1) _____;
2) _____
; 3) _____; and
4) _____.

(3) Tomorrow

Several contracts are pending with major organizations for (List pending contracts) , _____, and _____.
Pending contract number one description:

Pending contract number two description:

Pending contract number three description:

h) Management Approach

____(Company name)____'s approach to the management of its business is structured as follows:

The management structure is formatted to minimize overhead costs by utilizing temporary, subcontract services, associates, and utilizing the principal's skills in planning, integration, implementation, and management.

___(Company Owner - President)____ will direct and manage all operations of the Corporation.

Associate services will be used to support ___(Company name)___ in the areas where ____(Company name)___ does not have the depth or resources for a cohesive project implementation.

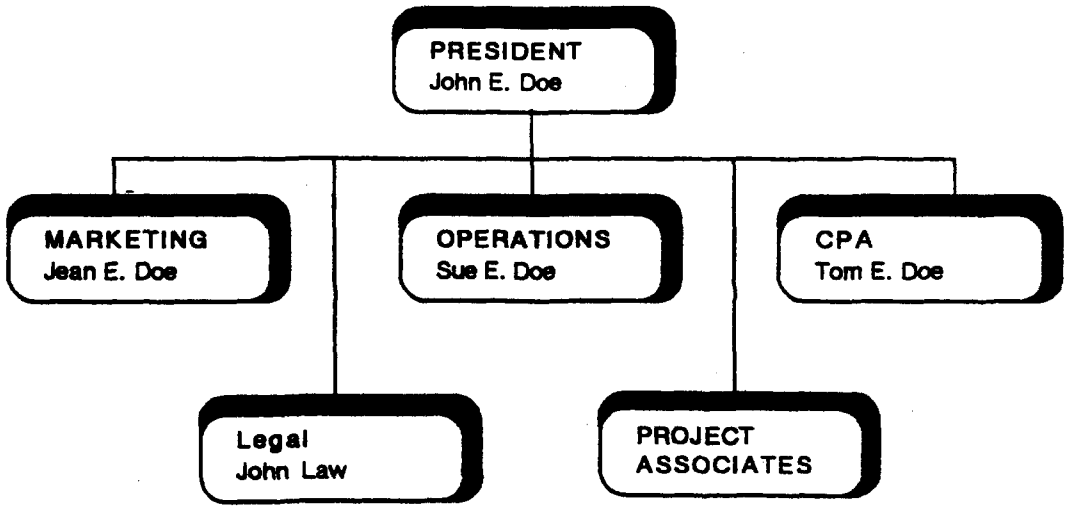
____(Name of Office Manager)____, whose experience is in business and office management will manage the office and business accounting.

___(Name of Company or persons)___ will support_____ (Company Name)___ on a parttime basis in marketing as he conducts his normal job as a computer supply and peripheral salesman.

The services of ____(Lawyer)___ will be utilized as Joint Ventures are established for ____(Company name)____ to verify that____(Company name)____complies with City, State, Federal and business requirements.

Project associates will be employed as needed for project(s) implementation.

The present contract with ___(Customer name)___ is a fixed firm price contract for approximately $000,000 and it is___ (Company name)_____'s intent to provide other services to the ___(Customer name)____ by additions to the present contract.



- (List project associates)
- _____
- _____
- _____
- _____
- _____
- _____

i) Marketing Plan

Statistics indicate an increasing need for marketing knowledge among small businesses in order to better enable them to survive and grow.

(1) *EXAMPLE:* Marketing Plan

_____(Company name)_____'s services will be sold by advertising through the economic development projects being developed by____(Whomever)_____and by word of mouth.

Continued Marketing effort will be through providing assistance and support to the ethnic and women's chambers.

The Denver metro area and Colorado are prime for the economic development projects being created and implemented by __(Company name)__.

The ___(Name of projects/services/products developed)___ Projects developed and implemented by ___(Company name)___

will continue to be the primary marketing scheme employed by ____(Company name)____. ____(Company name)____, being on the leading edge for development and implementation, will attempt to stay one step ahead of its competitors. The projects being developed, accepted and implemented by (Company name)___ are the key factors in keeping ahead of its competitors.

In summary, when ____(Company name)____'s strengths, weaknesses, opportunities, and threats are synthesized -- ____(Company name)____ is at the present time and in the near future ahead of its competitors.

- Strengths:
  1) Leading edge in Business Management Technology and tools
  2) Ability for accurate and rapid needs assessment
  3) Major and simple systems design, development and implementation
  4) Creditable name in business community
  5) Computerized operation

- Weaknesses:
  1) Computer reliance
  2) Leading edge
  3) Company size
  4) Non-profit entity support

- Opportunities:
  1) ____(List)____
  2) _____
  3) _____
  4) _____

- Threats
  1) ____(List)____
  2) _____
  3) _____
  4) _____

j) Financial

The loan amount being requested by ___(Company name)___ is a credit line of $00,000/month. This amount was determined based on proposed cash flow requirements for purchases and operating costs per this plan (see Cash Flow Projection Appendix).

Credit checks will indicate that (Company name) and (Company name's) principal have always had an excellent credit rating.

All present debts are current. Although there have been times due to reduced cash flow, payments have been late, they have never gone unpaid.

(1) Ratios

(a) Current Ratio

How Calculated: Divide current assets BY current liabilities.
What it shows: How the business can meet its current debt. Popular thought is that the higher the ratio, the better shape the business is in. However, a high ratio, of itself, does not tell: 1) whether cash is being used to best advantage; 2) the distribution of current assets - receivables may be too high or inventory may be too high.

(b) Worth to Debt Ratio

How Calculated: Divide net worth BY total debt (current liabilities minus long-term liabilities)
What it shows: What percentage of the total money invested in the business is the owner's; what percentage was contributed by creditors. The higher the ratio, the more money the owner has in the business and the safer any creditors. (They are safer because more owner's equity is there to cushion creditors against a loss). However, it may also show that the owner is too conservative; is unwilling to take any risks; is not using funds to the best advantage; or is not realizing the maximum potential of the business.

(c) Profit on Sales

How calculated: Divide net profit (before taxes) for period BY sales for period.
What it shows: What part of every sales dollar is profit. Higher percentage means greater efficiency of operation.

(d) Inventory Turnover

How calculated: Divide cost of goods sold BY inventory.
What it shows: How many times the inventory turns -- or "sells out" during the year. Normally a high turnover rate means salable, fresh and liquid inventory. Too slow turnover means too much inventory for the sales capacity of the business. However, too fast turnover can indicate a hand-to-mouth existence

easily upset by sales drop-off -- the business is buying today what it is selling today; paying today out of today's sales.

(e) Receivables Turnover

How calculated: Divide annual sales BY accounts receivable.
What it shows: How fast the business is collecting from customers. The higher the turnover, the faster the collecting.
The average number of days it takes to collect the accounts receivable can be calculated: Divide the turnover rate into 360. The more days, the more chance of delinquent accounts.

(f) Profit to Net Worth

How calculated: Divide Profit BY Net Worth.
What it shows: Return on investment. What yield or "interest rate" -- the investment in the business is getting; percentage of investment that is being returned yearly through profit. Divide this percentage into 100 to see how many years it will take to get back the total investment in the business.

(g) Sales to Working Capital

How calculated: Net sales divided BY working capital (current assets less current liabilities).
What it shows: How many dollars of sales the company makes for every dollar of working capital it has. This ratio can be of great value when the business is expanding. It helps to determine how much more working capital will be necessary to support higher sales.

3. "Working Smarter" , Total Quality Management (TQM) Applied

"The agony of poor quality remains long after the ecstasy of low price is forgotten" - - Tom Godwin

Total Quality Management (TQM) focuses on meeting the expectations of the customer, thereby resulting in repeat business. The customer MUST be the focal point throughout the organization, with the recognition of the importance of meeting their needs permeating every aspect of the operation, from employee attitude to task performance.

We're all in this together.

The mission statement of the company should clearly integrate quality into the processes throughout the organization in order to design quality into the product or service. The operational work flow must encompass an integrated team approach and be supported with the proper tools in order to meet customer objectives within schedule and cost. It also must be able to collect the needed data for evaluation in order to determine which actions will enhance the operation by overcoming weaknesses while building on the strengths. This requires a tool, for use by the team, which closely integrates task, schedule and cost -- they are interrelated and interdependent with a change in any one impacting all others. The team must be empowered with the proper attitude, tools, techniques and authority in order to achieve the task (a quality product/service) within schedule and cost.

Statistical Process Control (SPC) is the silver thread that runs through TQM. By examining the operational flow, the SPC approach determines initial data collection locations and system requirements while identifying areas of responsibilities and work flow of the product throughout the process. At this point redundancies, overlaps, and opportunities for "quick hit"

(immediate) process improvement benefits often occur.

In 1978, while responsible for a major project in which quality was paramount, I recognized a need for a system which would provide direction and guidance to the project team thereby insuring a quality product. This project team was comprised of individuals from systems, design, manufacturing, quality assurance, testing, and operations. The team functioned as a unit, each representing their respective areas, in the development, manufacture, and operation of the product. The team delivered that product within specifications, ahead of schedule, and within cost.

In recent years, the Total Quality Management (TQM) process has become well known and it has been gratifying to discover that what I had developed out of the necessity to insure a quality product is, in fact, supported by those who are now considered to be the "experts" in this process. An overview of the work of two of these experts is contained in the section on TQM Background in order to provide you with the theoretical basis against which to compare my practical, operations-oriented model. It would appear that, even though the work being done by Deming and his associates was unknown to me at the time, the underlying premise of what is now known as TQM have always been the basis for the "Working Smarter" element of the "Smarter Business Cycle."

a) TQM Background

Quality, the cornerstone of competitive strategy for firms that hope to survive the 20th century, is having a profound effect on the way companies are managed. American business is being drawn into the quality revolution by the ever-growing expectations of customers around the world, who are demanding high quality products and services at low prices. For those that succeed, the evidence shows clearly that quality has become the key to increasing both market share and profits.

While some U.S. firms have turned to promotional gimmicks to improve their quality image, many are making dramatic changes and finding that a real commitment to meeting higher quality goals also results in higher productivity, thereby lowering costs.

A small group of "quality experts" have been saying for years that quality is a cost effective and necessary business strategy. Today, a growing number of U.S. firms are following the coaching of these experts in an effort to compete. Four of the most sought after "quality coaches": are W. Edwards Deming, Joseph M. Juran, William E. Conway, and Philip B. Crosby.

All of them recognize that there are no short cuts to quality, and that the improvement process is a never-ending cycle, requiring the full support and participation of individual workers, whole departments, and, most importantly, top management. Beyond that, the four coaches disagree about how best to go about improving quality. Presented here are Deming's and Conway's "game plans" for American business.

These articles on Deming's and Conway's "game plans" for American business were copied from CPI Purchasing which was sponsored by Dow Chemical Company and written by James Gagne.

(1) Dr. W. Edwards Deming

Dr. Deming is the 85-year old statistician best known for setting Japanese business upon the course that has made them number one in quality throughout the world. In 1950, he went to Japan to help the U.S. Secretary of War conduct a population census, and was invited to lecture to top business leaders on statistical quality control. Deming told the Japanese they could "take over the world" if they followed his advice. The rest is history, and today the highest quality award in Japan is named after Deming. He has been called the "founder of the Third Wave of the Industrial Revolution" and often sounds like a crusader for quality with statements such as, "It is time to adopt a new religion in America."

He estimates that it will take the United States 30 years to accomplish what the Japanese have done to improve quality because "a big ship, traveling at full speed, requires distance and time to turn." He warns that "people who expect quick results are doomed to disappointment."

According to Deming, good quality does not necessarily mean high quality. It is, rather, "a predictable degree of uniformity and dependability, at low cost, and suited to the market." He recognizes that the quality of any product or service has many scales, and may get a high mark on one scale and a low mark on another. In other words, quality is whatever the customer needs and wants. And since the customer's requirements and tastes are always changing, the solution to defining quality in terms of the customer is to constantly conduct customer research.

Deming's basic philosophy on quality is that productivity improves as variability decreases. Since all things vary, he says, that is why the statistical method of quality control is needed. "Statistical control does not imply absence of defective items. It is a state of random variation, in which the limits of variation are predictable," he explains.

There are two types of variation: change and assignable, and says Deming, "The difference between these is one of the most difficult things to comprehend." It is a waste of time and money to look for the cause of chance variation, yet, he says, this is exactly what many companies do when they attempt to solve quality problems without using statistical methods. He advocates the use of statistics to measure performance in all areas, not just conformance to product specifications. Furthermore, he says it is not enough to meet specifications; one has to keep working to reduce the variation as well.

Deming is extremely critical of U.S. management and is an advocate of worker participation in decision making. He claims that management is responsible for 94 percent of quality problems, and points out that it is management's task to help people work smarter, not harder. "The first step is for management to remove the barriers that rob the hourly worker of his right to do a good job," he says.

He also knocks motivational programs, in which he includes zero defects, and says that everyone simply doing their best is not the answer because it is also necessary that people know what to do. And, he asks, "How can a man do it right the first time when the incoming material is off gauge, off color, or otherwise defective, or if his machine is not in good order?

Deming cites the following as a typical letter from a supplier in response to an inquiry on its quality: "We are pleased to inform you that quality is our motto. We believe in quality. You will see from the enclosed pamphlet that nothing goes out of this plant until it has been thoroughly inspected. In fact, a large portion of our effort in production is spent on inspection to be sure of our quality." This, he says, "is a true confession of ignorance of what quality is, and how to achieve it."

Inspection, whether of incoming or outgoing goods, is, according to Deming, too late, ineffective, and costly. "inspection does not improve quality, nor guarantee it," he says. Moreover, inspection is usually designed to allow a certain number of defects to enter the system. For example, a company that buys items with an acceptable quality level of three percent is, in effect, telling the vendor that it can send three bad items out of every 100. "The vendor will be pleased to meet these requirements," says Deming.

He says that judging quality requires knowledge of the "statistical evidence of quality," and that companies dealing with vendors under statistical control can eliminate inspection. You will note from the control charts that came along with the product, far better than any inspection can tell you, what the distribution of quality is, and what it will be tomorrow. In this way, quality is predictable, and one can also safely predict that the vendor's quality will improve over time. "One of the first steps for managers of purchasing to take is to learn enough about the statistical control of quality to be able to assess the qualifications of a supplier, to be able to talk to him in statistical language," says Deming.

Deming also points out that simply checking the specifications of incoming materials may not be enough if the material encounters problems in production. "Specifications cannot tell the whole story. The supplier must know what the material is to be used for," he says.

He is critical of most procedures for qualifying vendors

on quality because once qualified, the vendor "has discharged his responsibility, and the purchaser accepts whatever he gets." The only effective way to qualify vendors is to see if their management abides by his 14 points, uses statistical process control, and is willing to cooperate on tests and use of instruments and gauges.

The best recognition one can give a quality vendor, according to Deming, is to give that vendor more business. He points out that requiring statistical evidence of process control in selecting vendors would mean, in most companies, a drastic reduction in the number of vendors they deal with simply because not that many vendors would qualify. Nevertheless, he says, this is the only way to choose vendors, even if that means relying on a single source for critical items. In fact, Deming advocates single sourcing. "A second source, for protection, for every item purchased is a costly practice," he says. The advantages of single sourcing include better vendor commitment, eliminating small differences between products from two suppliers, and simplifying accounting and paperwork.

As to the fact that relying on a single source can often mean paying a higher price, Deming says, "The policy of forever trying to drive down the price of anything purchased, with no regard to quality and service, can drive good vendors and good service out of business. The ways of doing business with vendors and customers that were good enough in the past must now be revised to meet new requirements of quality and productivity."

Deming works as a private consultant to dozens of firms in the United States. It is said that he will simply stop working with a client who does not show a total commitment to quality.

(a) Deming's 14 points of management

1. Create constancy of purpose toward improvement of product and service.

2. Adopt the new philosophy. We can no longer live with commonly accepted levels of delays, mistakes, defective materials, and defective workmanship.

3. Cease dependence on mass inspection. Require, instead, statistical evidence that quality is built in.

4. End the practice of awarding business on the basis of price tag.

5. Find problems. It is management's job to work continually on the system.

6. Institute modern methods of training on the job.

7. Institute modern methods of supervision of production workers. The responsibility of foremen must

be changed from numbers to quality.

8. Drive out fear, so that everyone may work effectively for the company.

9. Break down barriers between departments.

10. Eliminate numerical goals, posters, and slogans for the work force, asking for new levels of productivity without providing methods.

11. Eliminate work standards that prescribe numerical quotas.

12. Remove barriers that stand between the hourly worker and his right to pride of workmanship.

13. Institute a vigorous program of education and retraining.

14. Create a structure in top management that will push every day on the above 13 points.

(2) William E. Conway

Mr. Conway is a relative newcomer to the quality game. Born 60 years ago, he graduated from Harvard and the U.S. Naval Academy before beginning a business career that would lead him to the top as president and chairman of Nashua Corp. In 1979, he invited Dr. Deming to Nashua Corp. to help improve the firm's quality. The visits lasted three years, and in 1983, he founded Conway Quality, Inc. Because of his close association with Deming, he is sometimes described as a "Deming disciple," but Conway has developed his own plan for quality improvement.

He does not talk in terms of a specific definition of quality per se. Instead, he incorporates that into his broad definition of quality management, which he says is "development, manufacture, administration, and distribution of consistent low cost products and services that customers want and/or need." Quality management also means constant improvement in all areas of operations, including suppliers and distributors, to eliminate waste of material, capital and time. The wasting of time is, by far, the biggest waste that occurs in most organizations, according to Conway. Excess inventory is another important form of waste because, he says, 60 percent of the space commonly used is not needed, yet a company must pay for it, pay to maintain it, and pay taxes on it.

Taking the view of the man who has been there at the top of a corporation. Conway talks about the "right way to manage" rather than simply how to improve quality. He says the biggest problem is that top management is not convinced that quality increases productivity and lowers costs. Furthermore, they feel they don't have time to

deal with the problem. "The bottleneck is located at the top of the bottle."

What is required is the creation of a new "system of management," whose primary task is continuous improvement in all areas. This, he says, is the most important change, and means changing all the unwritten rules in a company, and giving people positive reinforcement. "People work in the system, management works on the system. Workers will welcome the change," promises Conway. And while critical of U.S. management, he recognizes that "management wants and needs real help -- not destructive criticism."

Conway is a strong advocate of using statistical methods to achieve quality gains, and says that one of the greatest handicaps lies in attempting to deal with productivity and quality in generalities. "The use of statistics is a common sense way of getting into specifics," he says, adding, "Statistics don't solve problems. They identify where the problems are and point managers and workers toward solutions."

He distinguishes between simple and sophisticated statistical techniques, which he calls "tools." The simple statistical tools are run charts, flow charts, fishbone charts, Pareto charts, histograms, and correlation charts. Surveys of customers are one of the most important tools because they tell a firm what to work on. According to Conway, these simple techniques can be used to solve 85 percent of a company's problems, while more complicated statistical process control methods are needed only about 15 percent of the time.

Furthermore, Conway points out that once a process is in control, the people responsible for it become more creative in eliminating variations because they know that they are personally capable of improving the system. In fact, people at the bottom make the most improvement because they learn "how to be logical all the time." Conway says this also applies to R&D operations, and since the United States is still the world leader in creativity and innovation, he is optimistic about its future.

Conway says it is possible to continually improve the productivity and quality performance of everyone in a firm on a monthly basis. "In less than one year, you ought to be able to perform miracles," he predicts. This miracle has already been performed by the Japanese, who have caused what Conway terms a "paradigm shift" in the way the world views quality. This shift is comparable to the discovery, centuries ago, that the earth was round.

In his talks, Conway does not dwell for long on purchasing or any other function because he believes his principles apply to all areas. Focusing efforts on one area is not sufficient to change the management "system" of a company. He says, however, that the creation and implementation of

the new system is intended to be customized for each department. In fact, it is not necessary to wait for someone at the top to start the change; they can be shown by example the "right way to manage."

Conway's call for constant improvement in all areas of operations is intended to include a company's suppliers, and here, too, the key to success is the use of statistics. "It is just as vital to achieve statistical control of quality from your vendors as it is to have it internally," he says.

Overspecification, another form of waste in Conway's view, is not solely the responsibility of engineers. Purchasing managers and anyone connected with the design of a product are also responsible. He warns that specifications -- like work standards -- sometimes "cap" improvements.

In addition to working closely with clients, Conway Quality also provides training materials and furnishes a three-month implementation plan for management, called the "Gold Plan," which is a step-by-step plan for improving quality and productivity.

(a) Conway's 6 tools for quality improvement

1. Human relations skills -- the responsibility of management to create at every level, among all employees, the motivation and training to make the necessary improvements in the organization.

2. Statistical surveys -- the gathering of data about customers (internal as well as external), employees, technology and equipment, to be used as a measure for future progress and to identify what needs to be done.

3. Simple statistical techniques -- clear charts and diagrams that help identify problems, track work flow, gauge progress, and indicate solutions.

4. Statistical process control -- the statistical charting of a process, whether manufacturing or non-manufacturing, to help identify and reduce variation.

5. Imagineering -- a key concept in problem solving, involves the visualization of a process, procedure, or operation with all waste eliminated.

6. Industrial engineering -- common techniques of pacing, work simplification, methods analysis, plant layout and material handling to achieve improvements.

b) CSI's TQM Process

(1) Definition of Terms in CSI's process

The following are definitions of terms used in the

"Working Smarter" process.

• Goal - Something toward which effort or movement is directed

• Objective - That which is striven for or aimed at; end

• Task - A specific amount of labor or study imposed by authority or required by duty or necessity.

• Critical Task(s) - Those tasks that must be accomplished on time and within budget in order for the function/project to be successful.

• Strategic - Of or pertaining to strategy (a plan or technique for achieving some end -- direction).

• Business - an occupation, trade or profession.

• Plan - A scheme, method or design for the attainment of some objective

• Network - A flow diagram consisting of the activities that must be accomplished to reach the program objectives, showing their planned sequence of accomplishment, interdependencies, and interrelationships.

(2) Overview of CSI's process

CSI's TQM process can be accomplished through CSI's "Working Smarter". "Working Smarter" uses Critical Task Analysis (CTA) and the PICOR (Process, Inputs, Controls, Outputs, Resources) model (see Section XII). CTA is used to establish the operational flow(s) to meet the customers' needed products/services. CTA also assists in defining the necessary resources, thus minimizing gaps/overlaps and maximizing the utilization of resources. The focus is on customer satisfaction with team attitude being driven positively through known operational processes which meet customer needs.

As you develop your functional process (operational flow), consideration should be given to the types of projects/contracts that you work, so that potential projects/contracts can be better estimated and implemented later. The major purpose is to identify those tasks that must be performed in a logical sequence, on time and within budget for success -- "critical task analysis" (CTA).

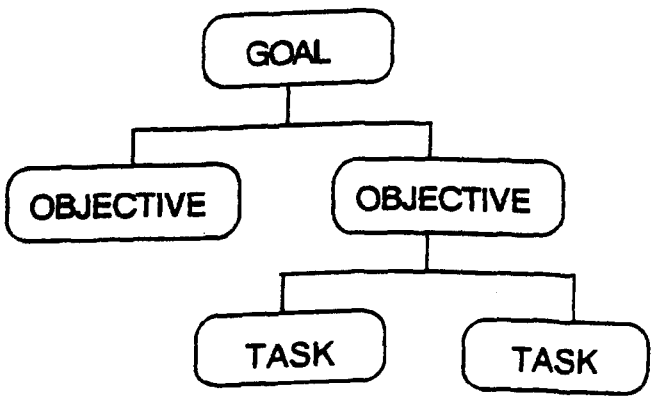
The CTA process establishes the baseline for quality, realistic estimating models which can be utilized to define each task within the flow and to provide definitive relationships, controls and resources.

The "Working Smarter" Critical Task Analysis process is used to enable minimization of communication problems by addressing matters such as overlaps, gaps and deficiencies in the jobs presently being performed. "Working Smarter"

is a must in today's competitive arena. This process will enable increased competitiveness and profits by:

- minimizing overlaps
- reducing gaps
- defining basic and composite labor rates
- defining clear roles and responsibilities
- developing cash flow projections and analysis
- developing operational flow diagrams, Critical Path Management
- developing estimating models
- marketing
- evaluation
- reporting

It is crucial that management use caution when going through this process. Critical tasks can be driven from the top down through a company's Strategic Plan or from bottom up by the supervisors, managers, and directors, but yields the greatest results when driven from the bottom up. To implement the overall company strategic plan, each departments' objectives in support of that strategic plan must be identified along with the associated tasks goal, objectives, and major tasks.



The next step will be to identify the critical tasks for the objectives. These are the tasks that must be performed in order to achieve the objectives, in turn, satisfying the company goal and satisfying the company strategic plan.

Once the critical tasks have been identified and analysis conducted, detail action plans are developed to implement company strategy.

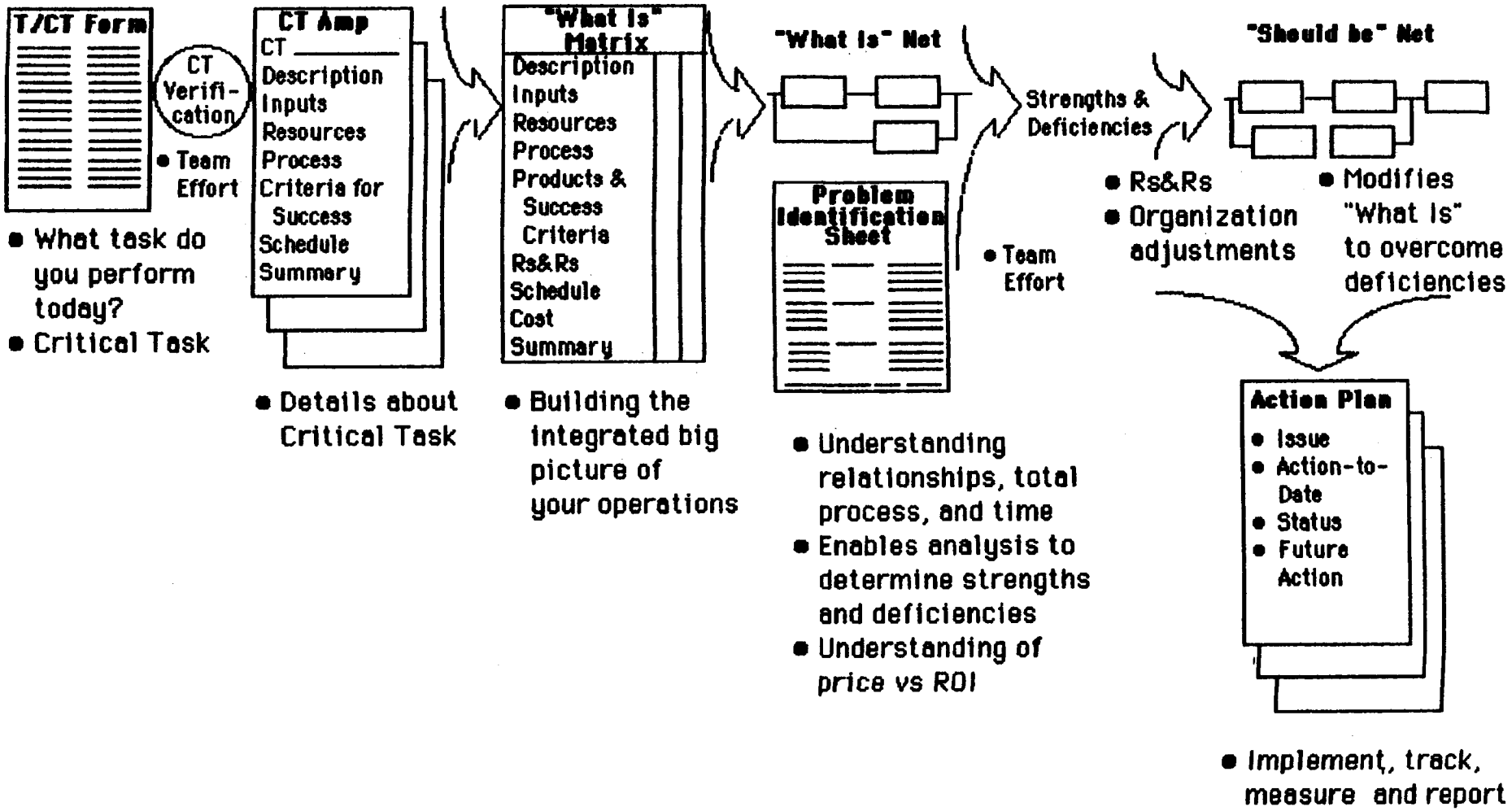
The critical task analysis will enable you to define and develop your functional operational flows. In turn it will enable you to use the subject network for specific project development and management. This operational flow (network) will also be the basis for the development of your estimating model.

For clarity the "Working Smarter" process is broken down into seven individual processes. The seven processes are: 1) Critical task identification, 2) Critical task amplification, 3) Critical task matrix development, 4) Critical task network (operational flow) development, 5) "Should be" matrix development based on "Could be" analysis, 6) "Should be" Operational Flow (s), and 7) Action plans.

In summary, "Working Smarter" follows the following overall process:

- Starting with a company strategic plan -- Goals
- Establishing departmental objectives -- "What is"
- Identifying critical tasks to achieve objectives
- Brainstorming for improvements -- "Could be"
- Conducting an analysis -- "Should be"
- Network
- Scheduling the network
- Developing detail action plans to implement.

(a) ***EXAMPLE:*** Critical Task Analysis Model



"WORKING SMARTER" CRITICAL TASK ANALYSIS PROCESS

Complexity Simplified ™, Inc.

4. "Smarter Proposals"

"Smarter Proposals" are the key to opening the door of opportunity. Proposals are also a small business' least expensive marketing tool, yet they have the greatest impact. Proposal preparation should include proposal analysis, development, review and negotiation considering task, schedule, and cost as well as the interrelationship of technical and management - - the "how to" in developing winning proposals. Quality proposals can increase the chances of acquiring contracts if certain steps are followed:

- Request for Proposal (RFP) analysis
- Proposal development and writing
- Proposal estimating
- Proposal packaging and submittal
- Reviewing
- Negotiation
- Reporting

One of the most intimidating items that small businesses face is a big thick government Request for Proposal (RFP). However, the way that you eat a whale is one bite at a time. If we can learn to bit-by-bit digest that big thick RFP, we can begin to become comfortable enough to develop a competent and competitive proposal.

The objective of this section is to assist you in analyzing, preparing, and negotiating a winning proposal. There are a few basic elements to all proposals and the key is to be able to recognize those elements and begin to analyze what they mean to you and your Company. In some cases it may require outside help to understand and respond, and you need to know when and where to go for help. There is nothing wrong in asking for help in preparing something that will hopefully make you money. If you have questions on the RFP, call the RFP owner (originator) as they usually are helpful.

The system(s)/processes are in place, so don't spend time fighting the system. Your time should be spent learning the system and becoming successful working within the system.

If you don't get the contract, call or meet with the RFP owner (originator) to find out how your proposal could have been the winner -- was it lack of experience, responsiveness, clarity, etc?

a) RFP Review

Proposals begin with a clear understanding of all internal operations, labor rates, overhead, and profit as integrated into a good estimating model. The Request for Proposal/Quote/Bid should be reviewed in detail and compared to your company's capabilities. The terms and conditions are to be understood and compared with your operation to ensure that your company can comply and survive under those terms and conditions. There may be some work that you do not perform, however you can subcontract this work.

Upon receipt of the RFP, review and study it to make sure you have a complete package.

(1) Proposal Checklist

The next step is to develop a proposal checklist outlining all pertinent information such as due dates and requirements.

• Pre-bid conference dates (Note: Some RFP's make this a mandatory requirement -- if you do not attend the pre-bid conference, your proposal may be thrown out)

• Proposal submittal due date, time, and location for delivery - There are no exceptions when it comes to the submittal due date and time. In many cases the location for delivery will require your mailing the proposal several days ahead of time or using overnight mail. It is always a good idea to use Certified mail when mailing your proposal.

• Proposal content requirements - RFP's are specific regarding content requirements. If your proposal does not meet these requirements, it may be thrown out.

• Number of copies to be submitted

• Signature requirements - note that there are certain agreement pages and information pages sent out with the RFP that must be completed and signed.

• Packaging instructions - RFP's will state whether you will package your technical package and cost package together or in separate packages.

• Mailing instructions - Some RFP's are very specific in asking that the proposal package be mailed "Certified".

• Any special instructions unique to the proposal.

(a) *EXAMPLE:* RFP Checklist

(THIS EXAMPLE CHECKLIST COVERS A RANGE OF PROPOSALS)

____ **MANDATORY Pre-bid conference at 2:00 P.M. MST, JUNE 11, 1990**, CH2M Hill, 6060 S. Willow Drive, Greenwood Village

____ Proposal submittal due date **JUNE 22, 1990, 5:00 P.M.**

____ Proposal must be delivered to:
CH2M Hill, Rocky Mountain Office
6060 So. Willow Drive
Englewood, CO 80111
Attention: John Butler

____ Proposal must be typewritten and single spaced.

____ Proposal will contain 2 bound volumes -- Volume

I, Technical; and Volume II, Proposal Price

____ Total Page Count - maximum 20 pages

____ MUST contain cover page on each volume (not included in Total Page Count).

____ MUST contain Table of Contents on each volume (not included in Total Page Count).

____ Resumes of key personnel to be included in Technical Volume and in total page count.

____ Subcontract Documents will be submitted as attachments (not included in Total Page Count).

____ The Agreement shall be signed by the proposer and returned with the Subcontract Documents (not included in Total Page Count).

____ MUST submit Federal income tax identification number or Social Security number.

____ Submit 2 copies each of Volume I and II, and attachments.

____ Cover pages should include signature line and signatures of Program Manager.

____ Proposal package MUST be packaged in an opaque sealed envelope marked with Project Title and name of proposer.

____ Proposal package should be mailed by certified mail through U.S. Post Office, or Federal Express for overnight delivery.

b) Analysis of RFP (5 points to consider)

(1) What to do

- Read RFP
- Study RFP
- Plan to be responsive
- But, don't goldplate
- Consider offering alternatives

Note: Most RFPs contain the following quote: "Your proposal should fully comply with all instructions contained in this Request for Proposal (RFP). Failure to do so could result in your proposal being considered not acceptable." FOLLOW RFP INSTRUCTIONS

(2) What the RFP analysis should include:

- Review of RFP for "hot buttons" and areas of high contractor interest
- Review for areas not clearly defined in the RFP which must be treated anyway
- Develop strategies and directions for the proposal team

• Develop customer responses/questions

(3) Who conducts the RFP analysis?

• Project Director, Marketing, and selected on-project personnel

(4) When is the RFP analysis conducted

• In time to respond to contractor deadlines
• In time to influence thematics and task plans

(5) Output format

Any appropriate format for Contractor communication and on-project direction

c) Proposal Overview Analysis

(1) Proposal Structure and Requirements

• The letter - This is the official invitation for your proposal with an overview and key specifics to assist you in your proposal preparation.
• Scope of Work - Description of the work to be accomplished. (Your proposal is the response to the RFP as to how you will accomplish the work and what the work schedule and cost will be with documented proof that you can meet the terms and conditions.)

(a) Background

Here an overview of the proposed projects is given along with related previous activities to direct you in locating pertinent data that will assist you in your proposal preparation. This also helps to establish the basis for the RFP.

(b) Proposal Tasks

"Oversight and enforcement support of remedial design/remedial action activities performed by the RFP or other activities as required by the project." You need to fully understand all requirements (such as the statement above) before preparing a proposal. The following will assist you in that understanding.

i) Task Flow Chart

ii) Related Task Federal Acquisition Requisitions (FARs)

iii) Task Schedule

iv) Task Cost

(2) Proposal Evaluation Criteria

The evaluation criteria should be studied and mapped against the task flow chart.

Writing to the criteria as you explain in your proposal how you plan to satisfy the scope of work is important. In some cases it may be advisable to develop a requirements traceability matrix to show how you plan to meet the scope of work through your step-by-step implementation process, culminating with the required reports.

(3) Federal Acquisition Regulations (FARs)

The prime contractor is obligated to carry out the Federal, State, and local regulations imposed on the subject contract, and to inform you as they must roll down these regulations to their subcontractors. It is of utmost importance to you that you understand these regulations and the impact on your proposal. It may be advisable to consult with an attorney, or consultant, or attend some college courses to fully understand their impact on the performance of your proposal.

The FARs should be compared against your operations network/flow and your capabilities matrix.

(4) Terms and Conditions

The Terms and Conditions are simply the groundrules which are to be followed in the proposal implementation, the insurance requirements, invoice and payment cycle, conflict of interest, patents, affirmative action, etc.

Here again, it is of utmost importance that you clearly understand the impact of the FARs (terms and conditions) on your proposal and that you are covered in the event that any one or all are executed against your proposal. You may want to call the RFP owner (originator) for clarification of clauses.

d) Proposal Thematics

Thematics set the stage for competitive proposal development by having all individuals involved in the proposal development focus on addressing the evaluation criteria.

(1) What they do

- Provide roadmap planning
- Provide win theme traceability and tuning
- Provide for RFP requirement alerts to section authors
- Serves as early author instructions from leads

(2) Who does it

- Proposal Manager

e) Topical Outline

The topical outline is necessary to focus your approach and strategy to be in line and responsive to the RFP. This will also provide you with another comparison of the RFP requirements and your capabilities.

(1) What does the topical outline provide

- Lists all subjects to address in a logical sequence
- Paragraph numbers all subjects and establishes exact titles
- Lists authors responsible for each subject
- Establishes page count for each subject

(2) Who does the topical outline

- Proposal Manager

(3) ***EXAMPLE:*** Topical outline

- Outlining

  - Follow the RFP
  - Cross index
  - Include: Topic, author, page count

Para No.	Topic	Page count Total	Lead
I.	Introduction	1	Sue Doe
II.	Description	2	John Doe
III.	Design Approach	5	John Publc

f) Proposal Task Flow

The Task Flow provides you with a detailed integrated picture and understanding of task, schedule and cost. The Task Flow is the basis for developing a good, technical, cost-competitive proposal.

This is where you summarize the plan for implementing the task.

The Statement of Work/Request for Proposal should be matrixed and task-flowed with the organization to verify that all tasks and resources are identified to perform the subject tasks. Once the tasks are understood and organized, you can then begin to write a winning proposal.

The contract Work Breakdown Structure (WBS) can then be developed for cost collection in conjunction with the tasks and schedule -- thus task, schedule and cost integration. This will minimize the incompatibilities of statement of work/organization/WBS/schedules as experienced in the past when WBSs were developed without considering the close interrelationships to Statement of Work (SOW), organization, schedule, and how cost was to be collected.

In today's environment of high cost and inflation, specialized skills, and multi-level management, upfront Task, Schedule, Cost (TSC) integration is a must for success.

A Program Automated Management System (PAMS) provides the capability to schedule and status all technical products, i.e., engineering releases, procurement drawings, specification drawings, components, and manufacturing end item installation and testing.

(1) What the task flow accomplishes

- Demonstrates an integrated plan for implementing all tasks
- Provides Work Breakdown Structure (WBS) visibility for each task
- Establishes input/output requirements
- Establishes credibility of plans and schedules
- Provides credibility basis for manpower and cost

(2) Who develops the task flow

- Responsible leads and manager

(3) Inputs needed by task author

- RFP statement of work/task description
- Program master schedules
- WBS
- Program organization
- Specific WBS responsibility within program
- Topical outlines

(4) Important coordination activities

- Task time spans that support master and element schedule
- Inner-WBS task alignments
- Input-Output support between tasks
- Functional organization support and inputs

g) Proposal Preparation Model

The proposal preparation model is used to structure and organize the collection, formatting, and generation of the subject proposal. This model is especially useful when there are a number of different entities involved in the generation of the proposal.

Once the proposal preparation model has been utilized to generate the necessary response to the RFP, the proposal should then be structured in accordance with the RFP instructions.

(1) RFP Requirements

Here you merely restate the requirement of the RFP.

(2) Interpretation

Provide a brief description of what you understand the RFP is asking for you to perform.

(3) General Description

Here you give a brief description of how you plan to satisfy the RFP requirements to include purpose and objectives.

(4) Inputs

Here you list the inputs required to start the task.

(5) Resources

Here you list those things/items/people used to perform the task.

(6) Process

Here you list in chronological order the tasks to be performed in order to satisfy the RFP requirements. It is imperative that the relationship of the task, schedule and cost be clearly defined in the "Process" in order that the customer has a clear understanding of the basis of estimate, i.e., "to perform this task the services of two (2) high tech trainers for three (3) hours at a rate of $55/hour are required".

(a) Product

Here you define the product of the respective task and how that product is to be utilized in meeting the RFP requirement.

(b) Schedule

Here you define the schedule required for the specific tasks to include the hours required to perform the task, as well as the span time needed in the performance of the tasks.

(c) Cost

Here you provide the cost for each specific task (the product of the hours required to perform the task and the respective labor rate). You will also identify other direct costs (ODC) as well as reimbursable costs. To this basic cost, you then add overhead and profit to determine the price for the respective task.

(d) Roles and Responsibilities

Here you clearly define the roles and responsibilities of the respective individuals for the subject tasks.

(7) Summary

Benefits: Here you list the benefits of the respective tasks.
Concerns: Here you list the concerns of the respective tasks making sure that all concerns have been addressed and proposed solutions are incorporated in the general description and process.
Risks: Here you define whether it is a low risk, medium risk or high risk task.

h) Proposal Writing Instructions

In writing the proposal, all writers should remain focused on the thematics and the topical outlines. Should there be any deviation from the thematics and topical outline, they must be coordinated with the entire proposal team via the Proposal Manager.

(1) Understanding of requirements

We must assure the Contractor that we understand his requirements, perhaps including the rationale for our understanding of the requirements. Example: The holding pond must be designed to enable . . . because . . ."

(2) Approach

At this point we define how we will satisfy the contractor's requirements.

(3) Soundness of approach

Here we tell the Contractor that he can have confidence in our approach because we've done it this way a thousand times without failure, or it's an established and accepted process, or our analysis results dictate this approach.

(4) Analysis to define approach

It's here that we tell the Contractor about the analyses/analysis that we conducted to arrive at our approach. For example, "we looked at the completed Marshall Project, Capitol Project and Campus Project while considering growth, selected the key points from each, and tailored them to meet these requirements". (Remember we can draw on our mistakes, too, as how not to do something)

(5) Task risk

The risk associated with this task is low because it's similar to the Marshall Project that we completed, OR the risk is medium because the requirements aren't yet clearly defined.

(6) Writing Tips

• Include pertinent data only -- non-pertinent data may be a signal that you don't understand the scope of work.

• Don't add something to give an old thing a new appearance and don't tutorialize.
- Open up immediately with your biggest point
- The start and closing of a paragraph is where the impact lies. Close with a strong point.

• Use simple, whole, declarative sentences

• Use the active tense

• Refer to graphics in the context of the key conclusions supported by the graphic. Many evaluators won't look at the graphics. They are text readers -- your key points must be in the text.

• But, other evaluators are visually-oriented -- be sure the graphic is professional and supportive

• Use a "because" preamble with all "chest puff" statements.
- Important for blending in applicable experience in the form of lessons learned

• Most RFPs will include the preparation format. Always set up your RFP response exactly according to their requirements. Proposals are thrown out because format requirements are not followed. Pay careful attention to page count.

i) Proposal Review

• Review your proposal response for clarity, thoroughness, ambiguity, and consistency

• The following are common mistakes of proposal writers:
- Too much material on graphics
- Graphics reduced to point of illegibility
- Text not talking to graphics
- Text not driving reader to graphics
- Not fully responding to all RFP requirements

- Solutions to these common mistakes are:
  - Review text by itself
  - Review graphics package by itself
  - Review text and graphics side-by-side
  - Prepare RFP requirements checklist

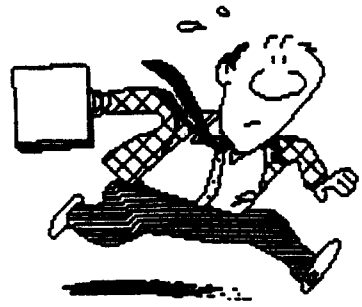
- Elimination of errors is essential, this includes:
  - Typographical errors
  - Numbers
  - Decimal points

- Most RFPs request that the technical portion and cost portion of your response be packaged in separate volumes.

- After final proposal response copies are made review for:
  - Print quality
  - Right side up
  - Assembled properly

j) Proposal Submittal

Submittal of the proposal on time or before is a must.



This is the last gate before opportunity -- late proposals close the gate. Make sure that you have followed your checklist and the proposal is packaged in accordance with the RFP instructions.

k) Proposal Negotiation

- Don't give away the farm

- Don't leave it on the table
- You don't negotiate profit

(1) Negotiations

Negotiations are a process of the buyer and supplier coming to agreement on the proposal. This includes clarification on the tasks and adjustments, finalizing the schedule and finally negotiating the cost. You negotiate profit as related to risk. Overhead is not negotiable unless you renegotiate with the public utility company!! A good estimating model will enable rapid response to contract negotiations as task and schedules are negotiated and finalized. Factors that impact tasks, schedule, and cost that must be considered are terms and conditions, delivery, technical, risk, and complexity.

Am I negotiating with the buyer/decision maker or just an employee. Let the buyer do most of the talking and only answer the questions asked. The more they talk the more you learn. Steer clear of high risk areas. Focus on hard, clear facts. Guide the buyer to focus on your strong points. On points of differences, don't take it personally. You must translate technical, financial, or other pertinent points into plain language. While on your feet, patience is a virtue, but speak up when needed.

(2) The Buyer

It is important that you know the buyer -- their likes, dislikes, history, their knowledge of product/service, their buying limits. Suggest other ways that your product/service can meet their needs outside the proposal. Talk about your competitors -- focus on how much better your product/service is and that you deliver on time and within cost rather than on downgrading your competition.

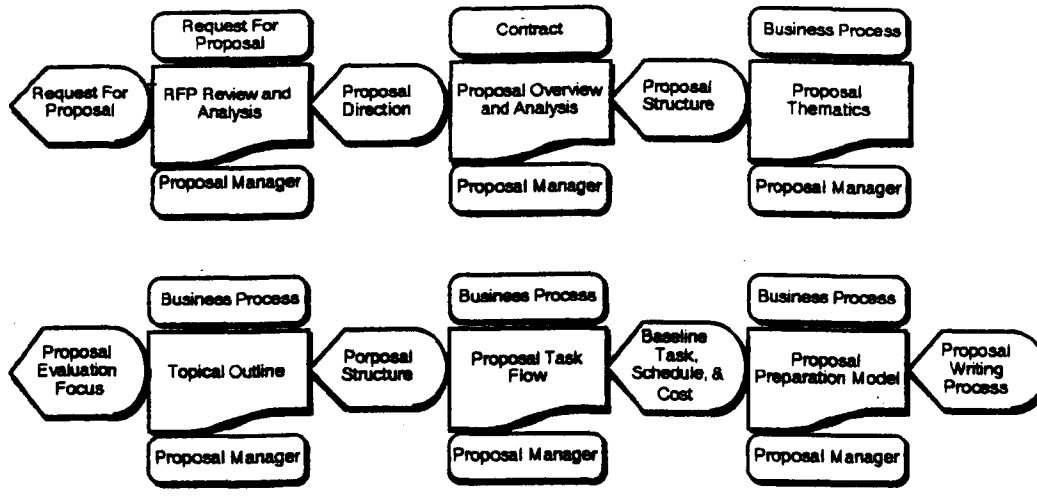
(3) Knowledge of Product/Service

It is mandatory that you know your product/service like the back of your hand -- both technical, schedule, and cost. Know the materials used, the construction process and production rates. Why is your system more reliable? Supporting documents and services must be presented in negotiations.

(4) Cost, Terms and Conditions

You must know the Cost Breakdown Structure and the basis of the cost development as it relates to the Task, Schedule, and Terms and Conditions. Special clauses must be clearly understood as to how they relate to cost and schedule.

1) *EXAMPLE:* Smarter Proposals Flow Chart



XII. WHICH MANAGEMENT TOOLS AND TECHNIQUES ARE HELPFUL?

The complexity of today's industry and the dynamics of our economy have forced us into increased specialization. This is true, not only in the fields of advanced technology, but also in simpler business applications. The impact of this complexity has made it difficult for management to differentiate between "what is" and what "should be", and to arrive at profitable decisions at the proper time.

Running a business by the seat of your pants rather than according to written processes is a good way to avoid contract compliance. Developing good management tools and techniques is a daunting task. However, these are a must in order to provide good estimates, contract management, and contract compliance for successful business operation.

The first place to start is to develop basic and composite labor rates. Second, a good operational flow(s) is needed in order to develop estimating models (spreadsheets and critical path management flows). These tools will enable successful contract compliance and are an integral part of total quality management. These tools are also essential in developing "Smarter Business Plans", "Working Smarter" and developing "Smarter Proposals".

A. Basic and Composite Labor Rates

Labor Rate Calculation

Individual and company composite labor rates are necessary to determine accurate overhead costs and to develop an accurate and competitive estimate in response to requests for proposals (RFPs).

The following are CSI's instructions for developing your basic labor rate calculations using a Basic Labor Rate Calculation Worksheet:

1) List all employees and annual rates in the "Position" and "Annual Rate" columns

2) Determine the number of sick leave, vacation, holidays, and non-work (less than 10%) hours based on empirical data and enter into the respective column

3) Subtract the number of non-working and non-chargeable hours (sick leave, vacation, holidays) per year from 2080 (yearly working hours) and enter in "Billable Hours" column

4) Divide the "Annual Rate" by the number of "Billable Hours" to determine the individual Basic Rate - enter in "Basic Rate"

5) Multiply the individual "Basic Rate" times the Overhead Rate to determine the individual Cost Rate - enter in "Cost Rate". (The Overhead Rate is defined as the relationship of accounts receivables versus the cost of doing business. A percentage added to a direct task cost to cover indirect costs of performing that task.)

6) Multiply the individual "Cost Rate" times the Profit to determine the individual "Price Rate" enter in "Price Rate"

7) The composite rate is determined by averaging the "Basic Rate"

times Overhead for Cost, and the product of that times Profit for the composite "Price Rate".

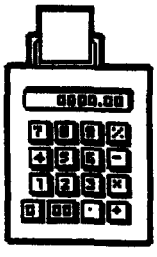
1. ***EXAMPLE:*** Determining Basic Labor Rate

Position	Annual Rate	Sick Leave	Vac	Hol	Non 25%	Bill 2080	Basic Rate
President	$50,000	40	120	64	520	1336	37.43
V. P.	$40,000	40	120	64	520	1336	29.94
Director	$35,000	40	80	64	520	1376	25.44
Manager	$30,000	40	80	64	520	1376	21.80
	$38,750						$28.65

OVERHEAD	65%	$18.62
COST		$47.27
PROFIT	20%	$9.45

BILLING RATE PRICE $56.73

2. ***EXERCISE:*** Compute the basic labor rate for your organization.



B. Operational Flow

An Operational Network which can be loaded onto a personal computer utilizing some low-cost project management software will be of great value to the company in developing and managing proposals. There are a number of good books (i.e., "Management of Engineering Projects" (third edition) by Victor G. Hajek and "Planning Big with MacProject" by James Halcomb) available on project engineering management that will assist you in estimating and setting up your Operational Flow/Project on the computer.

An Automated Program Management System approach is a must in today's competitive world. Now that you have a network of your operation on the computer, you can better analyze your operation to define areas of improvement and to develop better and more accurate estimates. This will also enable you to better manage your day-to-day operations, therefore increasing your profits.

"Top down" planning techniques seem to have their origins in "Work Breakdown Structures". Basically, an automated project management allows the user to define several "High level" activities and link them together, then to "top down" to a lower level and build up the detail under the higher activity (Refer to Networking Section)

Once underlying details are in place the higher level activity becomes a summary of the lower level activities. The "Critical Path Method (CPM)", which requires the logical construction of the network at the detailed level and allows the detail to be summarized upwards to the Top Level - - "Bottoms Up Scheduling".

C. Cash Flow Projections

The Cash Flow Projection is one of the most critical day-to-day management tools your company can utilize. This tool will provide you with the monthly projected sales required in order to depict true real-time negative or positive profit margin. This tool will organize and structure all, and I repeat all, income and expenditures to depict your negative or positive balance. This tool will also depict credit line requirements, operating capitol, and the startup's non-recurring (start-up) expenditures. This tool, when properly maintained and utilized, provides you with real time company health enabling you to compensate today for tomorrow's financial problems.

1. ***EXAMPLE:*** Cash Flow Projection by Month

Cash flow forecast by month

Preparation date 10/5/90 ABC, Inc CFP Approved By _____ Prepared by Complexity Simplified™, Inc

COL 1	Jan-92	Feb-92	Mar-92	Apr-92	May-92	Jun-92	Jul-92	Aug-92	Sep-92	Oct-92	Nov-92	Dec-92
Cash at first of month	145,509	156,372	167,234	178,097	188,959	199,822	210,685	221,547	232,410	243,272	254,135	264,998
SEE	8,146	8,146	8,146	8,146	8,146	8,146	8,146	8,146	8,146	8,146	8,146	8,146
BASnet	719	719	719	719	719	719	719	719	719	719	719	719
"Smarter Cycle"	1,485	1,485	1,485	1,485	1,485	1,485	1,485	1,485	1,485	1,485	1,485	1,485
BCPCS	9,583	9,583	9,583	9,583	9,583	9,583	9,583	9,583	9,583	9,583	9,583	9,583
Credit Line		0	0	0	0	0	0	0	0	0	0	0
TOTAL CASH INFLOWS	19,933	19,933	19,933	19,933	19,933	19,933	19,933	19,933	19,933	19,933	19,933	19,933
Gross Wages	3,700	3,700	3,700	3,700	3,700	3,700	3,700	3,700	3,700	3,700	3,700	3,700
FICA (.0765)	283	283	283	283	283	283	283	283	283	283	283	283
Fed Unemp Taxes (.008)	30	30	30	30	30	30	30	30	30	30	30	30
State Unemp Taxes (.029)	107	107	107	107	107	107	107	107	107	107	107	107
Workmans Comp (.0094)	35	35	35	35	35	35	35	35	35	35	35	35
Misc Taxes	56	56	56	56	56	56	56	56	56	56	56	56
Advertising	75	75	75	75	75	75	75	75	75	75	75	75
Marketing	154	154	154	154	154	154	154	154	154	154	154	154
Printing	132	132	132	132	132	132	132	132	132	132	132	132
Postage	38	38	38	38	38	38	38	38	38	38	38	38
Outside Services	1,092	1,092	1,092	1,092	1,092	1,092	1,092	1,092	1,092	1,092	1,092	1,092
Dons/Contri	313	313	313	313	313	313	313	313	313	313	313	313
Dues/Subscriptions	20	20	20	20	20	20	20	20	20	20	20	20
Professional Development	12	12	12	12	12	12	12	12	12	12	12	12
Auto Lease	490	490	490	490	490	490	490	490	490	490	490	490
Auto Expense	395	395	395	395	395	395	395	395	395	395	395	395
Legal/Accounting	40	40	40	40	40	40	40	40	40	40	40	40
Insurance	480	480	480	480	480	480	480	480	480	480	480	480
Misc/PC/Check Charges	162	162	162	162	162	162	162	162	162	162	162	162
Office Supplies	45	45	45	45	45	45	45	45	45	45	45	45
Computer/Office Equipt	206	206	206	206	206	206	206	206	206	206	206	206
Office Equip Maint	45	45	45	45	45	45	45	45	45	45	45	45
Depreciation	250	250	250	250	250	250	250	250	250	250	250	250
Market Research	81	81	81	81	81	81	81	81	81	81	81	81
Rent	425	425	425	425	425	425	425	425	425	425	425	425
Telephone	231	231	231	231	231	231	231	231	231	231	231	231
Other Expenses	174	174	174	174	174	174	174	174	174	174	174	174
CL Payment	0	0	0	0	0	0	0	0	0	0	0	0
CL Interest 0.13 APR	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL CASH OUTFLOWS	9,071	9,071	9,071	9,071	9,071	9,071	9,071	9,071	9,071	9,071	9,071	9,071
Credit Line Bal 0	0	0	0	0	0	0	0	0	0	0	0	0
NET CASH FLOWS	10,863	10,863	10,863	10,863	10,863	10,863	10,863	10,863	10,863	10,863	10,863	10,863
Credit Line Needs	0	0	0	0	0	0	0	0	0	0	0	0
Cash end month	145,509	156,372	167,234	178,097	188,959	199,822	210,685	221,547	232,410	243,272	254,135	264,998	275,860

D. Estimating Models

Included in this section is a discussion of two basic estimating models -- the spreadsheet and the network (CPM).

Through the process of developing the "what is" operational network, you have developed the foundation from which an estimating model can be developed. - An estimating model is an integration of task, schedule, and cost which is used to intelligently bid on competitive procurements. It is used to determine whether or not the procurement is profitable for the company. This estimating model can be generated in two forms -- the network or spreadsheet. For those initiatives requiring many interrelated tasks such as construction and manufacturing, the network is suggested due to the importance of critical path management. For less complex initiatives such as support services, the spreadsheet can be employed. Again the key ingredients of a good estimating model are Task, Schedule, Cost (direct, indirect labor, materials). Consideration must be given to recurring and non-recurring cost in order to determine total cost.

1. *EXAMPLE:* Estimating model checklist

An estimating model checklist should be developed to include as a minimum:

1) Omissions -- Have you met all the customer requirements?

2) Did you break down the structure adequately to develop accurate estimates?

3) Have you misinterpreted the customer requirements?

4) Are you using the right data?

5) Have you left out any big items?

6) Did you conduct a risk analysis to determine risk factors?

7) Did you play the "what if" game?

2. Spreadsheet

For the spreadsheet, you might want to utilize a computer system that enables transfer of data from a spreadsheet to a word processor for ease of proposal preparation. The spreadsheet should be set up to include as a minimum:

1) Tasks as outlined in the network
2) Associated task hours (schedule)
3) Skill labor rates
4) Skills performing task(s)
5) Other direct charges and reimbursables
6) Overhead
7) Profit

This estimating model can now give you an accurate picture if the assumptions are true of what it will cost to provide your

services/product. Are you competitive? Are you making money? Are you losing money?

The sample spreadsheet estimating model considers the key elements in developing good estimates with the flexibility to provide bottom line estimates in real time.

a) Fields and Descriptions

Item No. - In many cases for ease of locating in computer databases as well as in proposal preparation, tasks are given item numbers.

Task & Resource - Simply, the task title and the resources that will perform the task.

L Rate - is the labor rate for the respective resource that is performing the task.

P Hrs - are the hours to be expended by the prime person in charge (PIC) of the task. Also in that field adjacent to the task the total hours for that task are entered. The hours entered here are the base hours for the task to be used as reference for all others who are involved in the task.

J Hrs - are the hours to be expended by an individual who is working jointly with the PIC -- equal hours for PIC and Joint.

S Hrs - are the hours to be expended by a supporting individual such as draftsman for an engineer which in this case is 25% of the engineer's time.

R Hrs - are the hours to be expended by an individual who must review the work of the PIC.

A Hrs - are the hours to be expended by an individual who must approve the work of the PIC.

I Hrs - are the hours to be expended by an individual who must integrate the respective tasks and individuals.

Total Labor Price - is the total labor cost, overhead, and profit for the respective task and resource.

T Hours - are the total hours to be expended on the task by the respective resource.

Total ODC - is the total other direct charges (printing, shop work, etc.) for the respective task and resource.

Note: The J, S, R, A, and I Hrs Fields can be used for other factors in the estimating model for such as risk, learning factors, experience factors, etc.

Caution: If the above fields are NOT employed, place the number "1" in whole in the block just below "Hrs".

Total Price - is the sum of labor, other direct cost and reimbursable.

No. Units - are the number of estimated units for the respective items being priced against the respective task by the resource.

Unit price - is the average price of each item.

Unit(s) Price - is the price of the product of the units times the unit price for the respective task.

Note: Other reimbursable could be added to the estimating model.

Air Fare - is the price of the airline ticket(s) for the respective trip.

Car Rental - is cost for the respective trip/task

Mileage - is the cost for the respective trip/task

Hotel - is the cost for the respective trip/task

Meals - is the cost for the respective trip/task

Misc - is the miscellaneous cost against the respective task by the resource.

Trip Days - is the length of the trip (number of days) by the respective resource for the related task (i.e., 2 people, 2 days = 4 trip days).

Trip Price - is the total trip price for the respective resource against the related task.

Reimb Price - is the total trips, telephone, and any other reimbursable.

The price summary provides a summarization of the Estimating Model elements for proposals, "what if" games, and project planning

b) ***EXAMPLE:*** Price Summary-Task & Resource Sheet Explanation

The Price Summary Sheet summarizes all calculations performed on the Task Resource Worksheet and is the document which is submitted with your proposal.

The Task & Resource Sheet is the worksheet on which the computer calculates the expenses associated with each task performed and, once the calculations are completed, the totals are automatically transferred to the Price Summary Sheet. The Task & Resource Sheet is NOT submitted with your proposal. The Task & Resource Worksheet (which can be used on any spreadsheet) is valuable to you in that it serves as a backup for your negotiations with the buyer, enabling you to make rapid changes to your cost package with a minimum of effort. This, in turn, allows you to obtain a reasonable

price for your work.

An explanation of the Task & Resource Worksheet follows. You will also need to refer to Section XII.D. of this workbook for a description of the abbreviations used at the top of the Task & Resource Worksheet columns (fields), i.e. L rate = labor rate.

The explanations below refer to the underlined letters and numbers at the very top on the following Task & Resource worksheet.

A Numbers all tasks which must be performed to complete the project, i.e. Task #1 is Data Quality Design, Task #2 is Monitor Sampling. These task numbers correspond to the Item # column (field) on the Price Summary Sheet. The number of tasks may equal any number (this example contains 6 tasks) and may be expanded to also include an infinite number of sub-tasks. The value of a computerized spreadsheet becomes readily apparent when you realize the amount of data with which you are going to be dealing and that it may be necessary to compute several "what if" scenarios to determine your final cost.

B Lists (by name) all tasks necessary to complete the project (Data Quality Design, Monitory Sampling, Monitor Sampling Preparation). Again, these task names correspond with those on the Price Summary Sheet.

C Lists all individuals (human resources) whose efforts will be required to complete the task (i.e., Project Manager, Field Engineer, etc.) These are listed twice: the first time in the data entry section (C1) and the second time in the calculation section (C2). Again, this list of individuals is duplicated on the Price Summary Sheet.

D Entries in this section of the worksheet indicate which resources (i.e., the project manager, the field engineer) serve in what capacities (i.e., as prime, joint, support, review, etc.) The number "1" entered in this section serves to "trigger" the necessary calculation, i.e., the "1" in the "S" column (field) indicates that the field engineer will spend 25% of the total time (designated by the .25 entered under the field heading) engaged in support activities and the "1" triggers the computer to calculate the hours and expense associated with this activity.

E Entries in this section of the worksheet represent the total hours each resource spends on the task and in which area (support, review, approve) that time is spent.

Using Task #1 (Data Quality Design) as an example, let's "walk through" the worksheet. The numbers on the left side of the page refer to the numbers entered over the column (field) headings, i.e. 1. refers to the L rate column (field).

1. In the "L rate" field, we find two pieces of

information.

(1) the number of individuals, by job function, needed to complete the task (C1). We will need 1 project manager, 1 field engineer, 3 field technicians, etc.

(2) the hourly rate for each of these individuals (C2). The project manager receives $55/hour; the field engineer receives $48/hour; each of the 3 field technicians receive $32/hour, etc.

2. In the "P hours" field we also find two pieces of information.

(1) Next to the task (B) we find the total number of hours the task will require by the Prime (i.e., Data Quality Design will require70 hours to complete).

(2) Next to the individual job titles, the hours each individual will spend on the task as the prime person. On this task the project manager is the prime person so "1" is entered next to his name. Remember, this "1" triggers the computation of his hours and labor rate (more on this later).

3. In the "J hours" field are the hours spent by the person working jointly with the prime person ("J hours" are equal to the "P hours") and are, therefore, figured at a rate of 1, or 100% of the "P hours"). This means that anyone serving in a "joint" capacity will work 100% of the Prime task time (i.e. , 70 hours). Since there is no joint responsibility on this task, the hours are listed as "0".

4. In the "S hours" field are those hours spent "supporting" the task. This is figured at a rate of .25 (again, this is found beneath the "S hours" heading) X the number of total hours required (.25=25%). Remember, this means that a person serving a support function will work 25% of the Prime task hours, i.e., 25% of 70. On this task the one field engineer serves as a support person. The calculation (which will be entered in Section E) is as follows:

The "1" in Section D "triggers" the calculation to begin: therefore: "1" X 1 (one field engineer) X .25 (the rate at which S hours are figured) X 70 (the Prime time this task requires) = 17.5 (total hours spent on the task by the field engineer when in a supporting role).

5. In the "R hours field are those hours spent "reviewing" the work done on this task. This is figured at a rate of .10 (once again, this number is found beneath the "R hours" heading) X the number of hours. In other words, reviewing this task will require 10% of the total allotted time (i.e., 10% of 70). In this example the field technician, the health & safety officer, the equipment manager and the report manager each have "1" entered in Section E, thus "triggering" the calculation (which will be entered in Section D) as follows:

"1" X 3 (three field technicians) X .10 (the rate at which R hours are figured) X 70 (the Prime time the task requires) = 21 (total hours spent on the task by the three field technicians when in a reviewing role.

"1" X 1 (health & safety officer) X .10 (the rate at which R hours are figured) X70 (the Prime time this task requires = 7 (total hours spent on the task by the health & safety officer when in a reviewing role. (This same calculation can also be used for the one equipment manager and the one report manager.)

6. In the "A hours" field are those hours spent "approving" the work done on this task. In this instance, the field engineer served in the "approving role" which is figured at a rate of .25 (which signifies it will take 25% of the total task hours). Once again, the number .25 is found beneath the heading "A hours".

The calculation (entered in Section E) is as follows:

"1" X 1 (one field engineer) X .25 (the rate at which approving hours are figured) X 70 (the Prime time this task requires) = 17.5 (total hours spent "approving the task" by the field engineer.

7. In the "I hours" field are those hours (figured at .1 or 10%) which are spent integrating the individuals and activities associated with this task. On this task, the project manager performs this role.

The calculation (entered in Section E) is as follows:

"1" x 1 (one project manager) x 70 (the "P" hrs required by the project manager to perform the task) = 70 (total hours spent by the project manager).

The algorithm for this calculation is =IF(D6=1,D5,0)xC6

D6 is the "1" to trigger the computer to calculate the project manager's prime task (column 2)

D5 is the hours required for the task (data quality design) by the project manager.

C6 is the "1" project manager

"1" x 1 (one project manager) x .10 (the rate at which integrating hours are figured) x 70 (the Prime time this task requires) = 7 (total hours spent "integrating the task" by the project manager. The algorithm for this calculation is =IF(I6=1,I4xD5,0)xC6

I6 is the "1" to trigger the computer to calculate the project manager's integration task. I4 is the "0.1" factor for integration in column 7.

D5 is the hours required for the task (data quality design) by the project manager.

C6 is the "1" project manager

8. In the "T hours" field are the total hours spent on this task by each job function, i.e., the field engineer spent 17.5 hours as a support person and 17.5 hours as a review person. When these numbers are added together, you get the total hours the field engineer spent on this task (35 hours).

On this task the project manager spent 77 hours, the field engineer spent 35 hours; the field technicians spent 21 hours; the health & safety officer, the equipment manager and the report manager each spent 7 hours and the X ray technician spent 0 hours for a total of 154 hours. (Although the prime hours spent on the task equal only 77, the remaining 77 hours are required to support, review, approve, etc.)

9. In the "TOTAL L-PRICE" field you find the total cost of the labor this task requires, i.e., the field engineer who spent 35 hours on this task receives $48/hour. Therefore, 35X48=$1680. These numbers are automatically transferred to the Price Summary Sheet in the "LABOR PRICE" field.

10. In the TOTAL ODC" field are direct charges associated with the completion of this task. In this instance, the equipment manager incurred an expense of $125. These numbers, too, are automatically transferred to the Price Summary Sheet in the "ODC" field.

11. In the "TOTAL Reimb" field are any costs which must be reimbursed directly to the individual. In this instance, there are none. If there were, these numbers would also be automatically transferred to the Price Summary Sheet in the "REIMB" field.

12. In the "TOTAL Price" field we find the sum of columns 9, 10 and 11. When all calculations are completed, columns 9, 10, 11 and 12 are then automatically transferred to the Price Summary Sheet. A "grand total" (the total cost of the entire project) appears directly beneath the column title, "TOTAL PRICE", and consists of the costs of each of the tasks combined, i.e., $79,272.

13. Fields 13-23 are the "support material" for the Reimbursable field on the Price Summary Worksheet.

Fields 13-15, however, are not considered as part of the "trip" and are figured separately from "trip expenses." These "units" refer to such things as telephone calls, printed documents, meals, etc. - things that are necessary in the completion of this task but are not "trip related."

For this task there were no entries made in these columns, but let's refer to Task #2, Monitor Sampling, for an example.

For Task #2, Field 13 shows that 50 telephone calls were made, each at a cost of $1.34 (Field 14) for a total expenditure of $67.00 (Field 15).

Fields 16-23 are considered to be costs associated with any "trips" necessary in the completion of this task. Again, using Task #2 for an example, let's look at the expenditures.

The one field engineer, the three field technicians and the X ray technician each spent $345 on air fare (Field 16).

The trip lasted 160 days for the one field engineer, 60 days for the three field technicians and 38 days for the X ray technician (Field 22). During that time, these individuals spent the night at a hotel which cost $56/night (Field 19) and spent $25/day on meals (Field 20). The field engineer also rented a car for $25/day (Field 17). Each of these daily amounts will have to be multiplied by the number of days the individual was "on the road", i.e., the field engineer, who was gone 160 days, spent $16,960: 160X$56 (hotel) + 160X$25 (meals) + 160X$25 (car rental) for a total of $16,960. This amount is then added to the other trip expenses for the field engineer (the $345 air fare) for a total of $17,305. When the non-trip expenses (phone calls totaling $67) are then added in, the total reimbursable cost (Field 24) for the field engineer for Task #2 becomes $17,372 (the amount which is automatically transferred to the Price Summary Sheet).

These calculations are then repeated for each of the individuals assigned to the task and for whom a "trip" was required.

AS WITH ALL MATHEMATICAL COMPUTATIONS, IT IS CRITICAL THAT YOU INSURE THEIR CORRECTNESS.

DOUBLE AND TRIPLE CHECK YOUR FIGURES TO MAKE SURE THEY "ADD UP", I.E. THE SUM OF THE LABOR COSTS ASSOCIATED WITH THE INDIVIDUALS MUST EQUAL THE TOTAL LABOR COST, THE "GRAND TOTAL" MUST BE THE SUM OF THE TOTAL COSTS ASSOCIATED WITH EACH TASK, ETC.

(1) ***EXAMPLE:*** Price Summary & Task & Resource Worksheet

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PRICE SUMMARY		LABOR PRICE	ODC	REIMB	TOTAL PRICE
Item No	Task & Resource				
					$79,272
1	Data Quality Design	$7,273	$125	$0	$7,398
	Project Manager	$4,235	$0	$0	$4,235
	Field Engineer	$1,680	$0	$0	$1,680
	Field Technician	$672	$0	$0	$672
	X ray Technician	$0	$0	$0	$0
	Health & Safety Officer	$280	$0	$0	$280
	Equipment Manager	$210	$125	$0	$335
	Report Manager	$196	$0	$0	$196
2	Monitoring Sampling	$29,650	$375	$26,013	$56,038
	Project Manager	$2,750	$0	$0	$2,750
	Field Engineer	$24,000	$375	$17,372	$41,747
	Field Technician	$0	$0	$5,205	$5,205
	X ray Technician	$0	$0	$3,436	$3,436
	Health & Safety Officer	$0	$0	$0	$0
	Equipment Manager	$1,500	$0	$0	$1,500
	Report Manager	$1,400	$0	$0	$1,400
3	Monitoring Sampling Prep	$6,225	$125	$0	$6,350
	Project Manager	$825	$0	$0	$825
	Field Engineer	$1,800	$0	$0	$1,800
	Field Technician	$3,600	$0	$0	$3,600
	X ray Technician	$0	$0	$0	$0
	Health & Safety Officer	$0	$125	$0	$125
	Equipment Manager	$0	$0	$0	$0
	Report Manager	$0	$0	$0	$0
4	Monitor Sampling Shipmen	$2,075	$125	$0	$2,200
	Project Manager	$275	$0	$0	$275
	Field Engineer	$600	$0	$0	$600
	Field Technician	$1,200	$0	$0	$1,200
	X ray Technician	$0	$0	$0	$0
	Health & Safety Officer	$0	$125	$0	$125
	Equipment Manager	$0	$0	$0	$0
	Report Manager	$0	$0	$0	$0
5	Monitor Sampling Trackin	$4,116	$125	$0	$4,241
	Project Manager	$660	$0	$0	$660
	Field Engineer	$576	$0	$0	$576
	Field Technician	$2,880	$0	$0	$2,880
	X ray Technician	$0	$0	$0	$0
	Health & Safety Officer	$0	$125	$0	$125
	Equipment Manager	$0	$0	$0	$0
	Report Manager	$0	$0	$0	$0
6	Monitor Rpts Shipment	$2,920	$125	$0	$3,045
	Project Manager	$440	$0	$0	$440
	Field Engineer	$0	$0	$0	$0
	Field Technician	$1,920	$0	$0	$1,920
	X ray Technician	$0	$0	$0	$0
	Health & Safety Officer	$0	$125	$0	$125
	Equipment Manager	$0	$0	$0	$0
	Report Manager	$560	$0	$0	$560

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A	B C	1	2	3	4	5	6	7	8	9	10	11	12
Item	Task & Resource	L	P	J	S	R	A	I	T	TOTAL	TOTAL	TOTAL	TOTAL
No.		Rate	Hrs	Hrs	Hrs	Hrs	Hrs	Hrs	Hrs	L-PRICE	ODC	REIMB	PRICE
				1	0.25	0.1	0.25	0.1					
1	Data Quality Design		70							$7,273			$7,398
	Project Manager	1	1					1					
	Field Engineer	1			1		1						
	C1 Field Technician	3				1		D					
	X ray Technician	1											
	Health and Safety Officer	1				1							
	Equipment Manager	1				1							
	Report Manager	1				1							
	Project Manager	55	70	0	0	0	0	7	77	$4,235		$0	$4,235
	Field Engineer	48	0	0	17.5	0	17.5	0	35	$1,680		$0	$1,680
	C2 Field Technician	32	0	0	0	21	0	E	21	$672		$0	$672
	X ray Technician	32	0	0	0	0	0	0	0	$0		$0	$0
	Health & Safety Officer	40	0	0	0	7	0	0	7	$280		$0	$280
	Equipment Manager	30	0	0	0	7	0	0	7	$210	$125	$0	$335
	Report Manager	28	0	0	0	7	0	0	7	$196		$0	$196
									154				
2	Monitor Sampling		500							$29,650			$56,038
	Project Manager	1						1					
	Field Engineer	1	1										
	Field Technician	3											
	X ray Technician	1											
	Health and Safety Officer	1											
	Equipment Manager	1				1							
	Report Manager	1				1							
	Project Manager	55	0	0	0	0	0	50	50	$2,750		$0	$2,750
	Field Engineer	48	500	0	0	0	0	0	500	$24,000	$375	$17,372	$41,747
	Field Technician	32	0	0	0	0	0	0	0	$0		$5,205	$5,205
	X ray Technician	32	0	0	0	0	0	0	0	$0		$3,436	$3,436
	Health & Safety Officer	40	0	0	0	0	0	0	0	$0		$0	$0
	Equipment Manager	30	0	0	0	50	0	0	50	$1,500		$0	$1,500
	Report Manager	28	0	0	0	50	0	0	50	$1,400		$0	$1,400
									650				
3	Monitor Sampling Preparation		150							$6,225			$6,350
	Project Manager	1						1					
	Field Engineer	1					1						
	Field Technician	3			1								
	X ray Technician	1											
	Health and Safety Officer	1											
	Equipment Manager	1											
	Report Manager	1											
	Project Manager	55	0	0	0	0	0	15	15	$825		$0	$825
	Field Engineer	48	0	0	0	0	37.5	0	37.5	$1,800		$0	$1,800
	Field Technician	32	0	0	113	0	0	0	113	$3,600		$0	$3,600

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13	14	15	16	17	18	19	20	21	22		
No	Unit	T-UNIT	Air Fare	Car	Mileage	Hotel	Meals	Misc	TRIP	TRIP	REIMB
Units	Price	PRICE		Rental					DAYS	PRICE	PRICE
		$0.00								$0	$0
		$0.00								$0	$0
		$0.00								$0	$0
		$0.00								$0	$0
		$0.00								$0	$0
		$0.00								$0	$0
		$0.00								$0	$0
		$0.00								$0	$0
50	$1.34	$67.00	$345.00	$25.00		$56.00	$25.00		160	$17,305	$17,372
		$0.00	$345.00			$56.00	$25.00		60	$5,205	$5,205
10	$1.34	$13.40	$345.00			$56.00	$25.00		38	$3,423	$3,436
		$0.00								$0	$0
		$0.00								$0	$0
		$0.00								$0	$0
		$0.00								$0	$0
		$0.00								$0	$0
		$0.00								$0	$0

3. Network

Networking through the use of computers is becoming more and more the business style of today when working with major entities. It is therefore to the advantage of the small business to begin to communicate through computer networks for major projects. In order to create this capability, it is necessary to develop operational flows of the existing processes of the business -- "What is" operational flows.

The "What is" operational network can be loaded onto a personal computer utilizing some low-cost project management software. It may be important to review the section on networking or there are a number of good books available on project engineering management that will assist you in estimating and setting your project up on the computer.

A Program Automated Management System (PAMS) approach is a must in today's competitive world. Now that you have a network of your operation on the computer, you can better analyze your operation to define areas of improvement and to develop better and more accurate estimates. This will also enable you to better manage your day-to-day operations, therefore increasing your profits.

"Top down" planning techniques have their origins in "Work Breakdown Structures". Basically, PAMS allows the user to define several "high level" activities and link them together, then to "top down" to a lower level and build up the detail under the higher activity (see Figure 1, Top Down Planning).

"Bottoms up" scheduling is a must in order to fulfill "Top down" planning. Once underlaying details are in place the higher level activity ("Top down") becomes a summary of the lower level activities. Several layers are allowed and, depending on the package, either no connection between the so called "sub-projects" is allowed or in some cases, no restrictions are imposed, allowing random connections between detailed and summary activities. This contrasts with the "Critical path method (CPM)", which requires the logical construction of the network at the detailed level and allows the detail to be summarized upwards to the Top Level - - "Bottoms Up Scheduling".

What is the difference? In the preparation and presentation of the initial network, barcharts and reports, probably none. In fact, users claim the "top down" method is usually quicker. The problems start to occur as the project moves on, work is started out of sequence, activities are delayed or deleted and additional work is required. Results from conventional packages using "standard" techniques are subject to various errors, the results from "top down" packages can be significantly wrong, particularly if lead and lag times (start to start/finish to finish) are used. The problems being caused by the lack of tight logical connections at the actual "working" level of the network. Of course skilled planners can avoid many of these problems but what happens to the many users of these packages who do not understand the basic theories and mathematics involved and happily accept the information provided on the basis that it must be correct

after all it was calculated by a computer! (see Figure 2, Critical Path Method/CPM).

Network construction is facilitated by the use of sub-projects with a considerable number of "interface events" to connect between the different sub-projects.

After the initial data entry, you should time analyze the project and adjust to meet your specific requirements. PAMS should provide you with ways for controlling time analysis, various types of imposed start and finish dates, the transmission (and reception) of dates from totally different project networks on the same hard disk or LAN (Local Area Net) and negative "float" where the project overruns contract deadlines. Inevitably at this stage it is necessary for you to go back and edit the network to correct mistakes and adjust sequences to meet imposed requirements. PAMs should allow you to control paths, "super critical" paths and listings of all preceding or succeeding events to isolate for review. PAMS should allow you to open up and adjust activities from the screen bar chart, the network screen or the tables described above. Calendars are changed from five day to six or seven day work weeks, shift work and planned overtime is introduced, and so on until eventually everyone is happy with the time analysis.

Resource analysis is the next stage in most projects. This should allow you to process up to 200 different resources, each with their own calendar, cost rates (idle time, normal hours, overtime and "overload") and "availability profile" (to allow for holidays) with both normal and threshold levels. You should be able to bring individual resources together to be allocated as "group resources" or switched off so that their costs are accumulated but the resource does not affect scheduling. You should decide whether to allow resource analysis to split activities (and by how much), to stretch activities if enough resources aren't available, or to demand an immediate start irrespective of resource availability.

After adding the resource and cost information to the program, it is time for you to see the consequences! You should consider: "early" and "late" aggregation with all activities starting on their earliest and latest dates respectively, "time critical" resource smoothing (only activities with float are delayed until they become critical, then resources are overloaded) and "resource critical" analysis where resources are not overloaded until the "project maximum delay" date is reached. You should continue to adjust the resource data to achieve a workable plan.

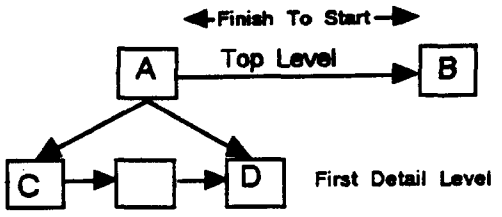
PAMS resource program should provide you with various costing options and include accrual periods, monthly budgets for the next six months, "earned value analysis", "budget-vs-actual" cost comparisons, global or activity level adjustments and most of the other reports required by DOD Standard 7000.2 and C/SSR.

When your "plan" is agreed upon, time, resource and budget information should be stored for future variance and baseline comparison reports.

PAMS should provide you with standard reports and some custom reports where you can design your own layouts. You should be able to select and sort on almost any field of data for inclusion in the reports. You should be able to include diagrams, text and sketches in the form of PICT (picture) files to the reports for additional impact.

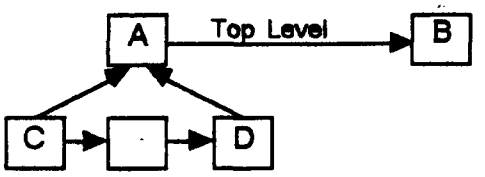
As work on your project progresses, sophisticated project monitoring and tracking options come into play. "Out of sequence" work should be reported without changing the network logic, and progress compared with the baseline schedule and original budget.

a) ***EXAMPLE:*** Top Down Planning & Critical Path Method (CPM)



"B" will be reported as ready start after "A" is finished ignoring the fact "C" is delayed.or "D" has to be completed prior to the start of "B", Time Analyis will give incorrect results

Figure 1 Top Down Planning



NOTE: With CPM, "C" and "D" must be completed before "A" is finished - - Bottoms up scheduling

Figure 2 Critical Path Method (CPM)

E. <u>PICOR - Process, Inputs, Controls, Outputs, and Resources</u>

PICOR is an analytical tool that assists in breaking down each process by its components. This process assists in understanding each process and its relationship with other processes.

1. Five Parameters of PICOR

PICOR has five parameters, each of which are defined as follows:

• Process - is the task being accomplished. The Inputs and Resources being utilized to accomplish the task. Step-by-step activities to achieve objective.

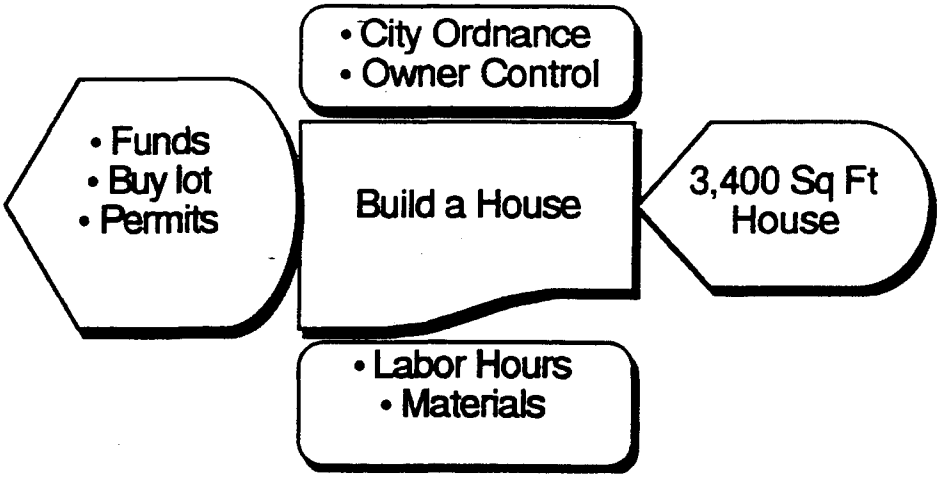
• Inputs - are those products from other tasks that are necessary to drive the process.

• Controls - are what or who governs the process.

• Outputs - are the product or results of the process.

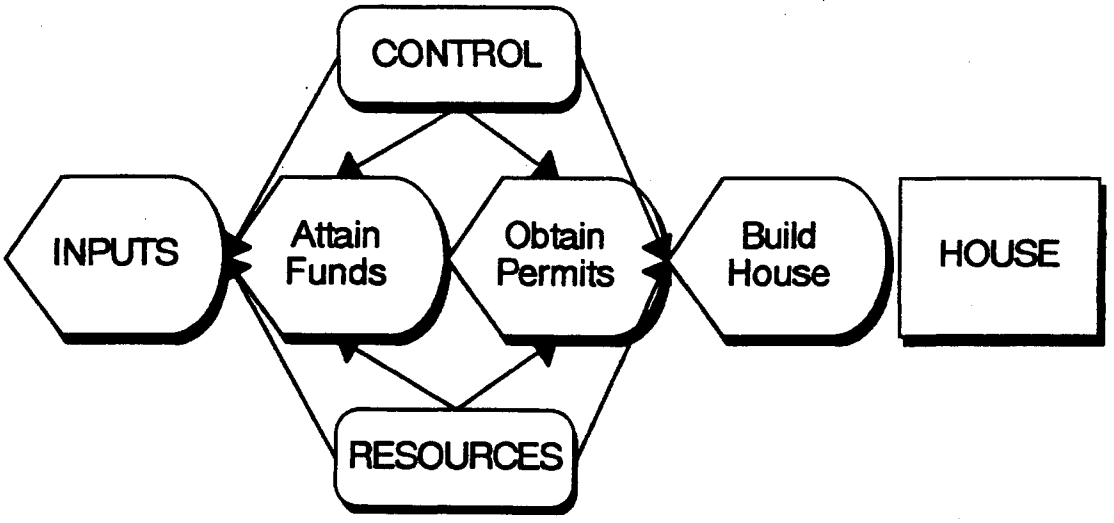
• Resources - are those items, elements, or people needed to perform the process.

2. ***EXAMPLE:*** PICOR Model



3. ***EXAMPLE:*** "Network", process flow

Note that with this model, each of the individual inputs is a process in itself. By lining up all of these processes from start to finish, we can design what we identify as a "network", the flow of the entire process. This is identified in the example below. The network is the flow of activities that must be accomplished to reach the objectives/goal, showing the planned sequence of accomplishments, activities, objectives and tasks involved.



Controls may exist internally or externally. Internal controls are seen in the example of an owner building a house, but external controls also exist in the forms of regulatory agencies, laws and city ordinances.

Looking at the interrelationships of processes, you can see that the outputs of one PICOR can be the inputs of another (i.e.,

attaining funds can be viewed as an independent process, but it is also an input to the process of buying the lot).

Resources apply to all the processes, which may involve extensive manhours, computer time, materials . . . or it may only involve 15 minutes of labor and the applied phone charges.

XIII. HOW DO I QUALIFY AND SELL THE BUYER?

A. Position the Buyer

It is important that you develop a healthy business relationship with the buyer. The following is a suggested process for building that relationship.

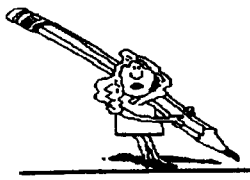
Objective: To learn about the Buyer's Company and the products they buy.

It is important for the Supplier to learn as much as possible about the Buyer and their processes by asking the following questions as a start:

- What are your major products?
- Do you have any special products? If so, what are they?
- Do you buy Mil Standard services/products (specification for government)?
- Do you buy to procurement drawings?
- Do you have any special procurement requirements?
- What market do you serve?
- Category of clients -- Federal, State, commercial?
- Are some of your PO's worked on an annual basis; if so, which ones?
- How often does your list of services/products come up for bid?
- What is your maintenance cycle?
- What is your preventative maintenance cycle?
- Who presently provides your services/products?
- What is your qualification process?
- Do you have a vendor evaluation program; if so, how does it work?
- Do you have scheduled vendor visitation hours?
- What is your invoicing cycle?
- What is your accounting year?
- List of buyers and what they buy?
- Who is the end product user within your company, and would you introduce me?
- How do they evaluate bids? Cost only? Delivery? Service?
- How do they request bids? BASnet? Approved lists only?
- Do they have pre-bid conferences on major purchases?

1. ***EXERCISE:*** Positioning the Buyer

QUESTIONS TO ASK THE BUYER



YOUR WORK

B. Know your Products/Services

Objective: To sell your product/service

The supplier should never get caught unprepared by not knowing all the details about their product or service. Therefore, you must know your own products/services. As a minimum, study the following about your product or service:

- Manufacturer
- Engineering/service contact
- Specifications
- Guarantees
- Warranties
- Capacity
- Schedules
- Market turnaround time

Now that you understand the prospective buyers needs, explain how your products can meet their needs and why they should buy from you. They should buy from you because your Company considers:

- Quality
- Quantity
- Delivery Schedule
- Cost
- Performance

Think about and address any concerns they may have about the relationship.

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C. Develop your Presentation

1. Suggested Company Profile Outline

Now that you have qualified the buyer, you can now prepare your presentation to sell and close the deal.

a) Company Background History

- Years in operation
- Type of ownership, -- corporation, partnership, sole proprietorship
- Principals, if closely held, or publicly held if appropriate
- Make-up of employees (if appropriate) academic or technical emphasis
- Locations, if more than one

- Corporate evolution, if important
- Other historical data and information

b) Company Stability

- Years in business
- Own your facilities, or lease and for how long have you been there
- Revenue growth pattern
- Profitability
- Borrowing ceiling versus average outstanding balance
- Management background, experience and time with the company
- Relationship with key customers, i.e., how long have they been customers

c) Company Philosophy

- Mission statement
- Core values
- Statement of philosophy
- What is important to the company
- How we want to treat others and be treated by others

d) Products Lines or Areas of Expertise

- Technical description of products and services
- Specific listing
- One of the few areas which must be precisely accurate

e) Approach to Quality

- Mil Spec requirements
- Total Quality Management (TQM)
- Statistical Process Control (SPC)
- Quality control department
- Formalization of the process
- Philosophy on quality

f) Contract Performance History

- Summary of specific information from customers
- Statement of performance
- Internally generated statistics and data

g) Skills Mix/Technical Breakdown

- Educational degrees of technical personnel
- Years of experience in specific disciplines
- Summary of labor categories

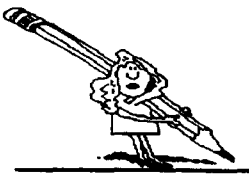
h) What Makes Your Company Different

- Answer the question -- why should this customer buy from you?
- Important issues --
  - Quality
  - Customer service
  - Delivery
  - Cost
- Make your best case
- Be creative

2. ***EXERCISE:*** Developing your presentation

   a) Complete Section c) Company Philosophy

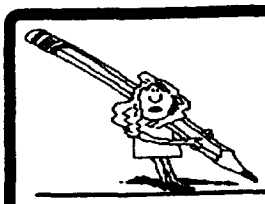
WHAT IS YOUR COMPANY PHILOSOPHY?



YOUR WORK

b) Complete Section e) Approach to Quality

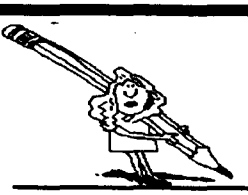
DESCRIBE THE QUALITY PROCESS YOU USE



YOUR WORK

c) Complete Section h) What Makes Your Company Different

WHY SHOULD THE CUSTOMER BUY FROM YOU?



YOUR WORK

XIV. HOW DO I MARKET AND SELL TO EPA PROCUREMENT?

A. Prepare to Sell

In order to reach the point of negotiation of a contract, there are two major steps that must be taken -- marketing and sales. Marketing, getting your Company name before potential customers, and getting on their bid/mailing list is the first and most important step. Second, once you have their attention and an opportunity to sell, you must be prepared to present and close the sale.

B. Make the Initial Contact

1. Description

Inquiries are received by the EPA Region VIII Administrative Services. Based upon what they have to offer, Suppliers are instructed as to whether this agency can use them. If this agency cannot use them, they might be referred to a totally different agency. If this agency can use them, they are instructed to fill out a standard Form 129 and submit it. Completion of the Form 129, places them on the Bidders Mailing List. Based on the service or supplies that they offer, the Contract Specialist in Administrative Services will direct them to the appropriate office within this agency to set up an appointment.

Upon contact with the appropriate office, they will set up a phone appointment or office appointment to discuss how that particular office can utilize your company's services or products.

If the purchase is for more than $2,500 the appropriate office needs to give the EPA Administrative Services Contract Specialist three sources. They cannot be a large and a small business -- they have to be all large or all small businesses. The small businesses can be in different categories -- minority owned, women owned, or minority/women owned. EPA can compete the three bids as long as they are all small businesses. Again, it can't be a mix of small and big -- it either has to be all small or all big.

2. Input

- Completed EPA Form 129

3. Control

- Federal Acquisition Regulation (FAR) Chapter 13 and EPA Procurement Regulations

4. Output

- Appointment with appropriate agency or "no fit"

5. Resources

- EPA Administrative Services Contract Specialist

C. Obtain Direction to Appropriate EPA Agency

1. Description

   Once the EPA Administrative Services Contract Specialist determines that there is a possible match with one of the EPA agencies, arrangements are then made for a presentation to the appropriate agency personnel.

2. Input

   • Purchase Request from Buyer

3. Control

   • FAR Chapter 13

4. Output

   • Appointment with appropriate agency personnel

5. Resources

   • EPA Administrative Services Contract Specialist
   • Suppliers

D. Make Brief Presentation to Buyer/Manager

1. Description

   The Supplier provides a 15-minute briefing to present their products/service to the respective agency personnel.

2. Input

   • Supplier briefing to EPA Agency

3. Control

   • Suppliers Procedures

4. Output

   • Buyer with clear understanding of supplier's products/service

5. Resources

   • Supplier
   • Buyer

E. Receive Purchase Request

The Purchase Request (PR) is prepared and entered into the computer for tracking purposes. The PR is then assigned to the Buyer, who then contacts you.

All federal agency purchasing is regulated by the Federal Acquisition Regulation (FAR), Chapter 13. The FAR states that you only need three resources to compete. However, the EPA Acquisition Regulation (EPAAR) requires 3 responsive, responsible bidders.

Regulations state that a contract of between $1 and $2,500 does not have to be competed. Anything between $2,500 and $25,000 must be competed. A request between $2,500 and $10,000 can be responded to verbally. A request between $10,000 and $25,000 must be responded to in writing. The EPA files will reflect whether the quote was verbal or written. A request for less than $2,500 does not need a sole source justification. A sole source request of $10,000 to $25,000 has to be published in the Commerce Business Daily.

There are occasions, for example in a request for consulting, that the EPA requester or originator will write a statement of work. The statement of work will then be sent out to each resource. The resource will then respond to that statement of work with their bid.

1. Description

   The EPA Requester/Buyer will get price quotes from the three resources and put that amount on the PR so that amount of dollars can be allocated. The resource people should be aware that when an individual calls and they are not a contracting specialist, they are usually calling for quotes only and not to order the service or the product. Obligations come from the Contracting Specialist only.

2. Input

- Buyer's List
- PR

3. Control

   - FAR Chapter 13

4. Output

   - Supplier to fill Purchase Order

5. Resources

   - EPA Administrative Services Contract Specialist

F. <u>Call Suggested Suppliers</u>

1. Description

   The contract specialist will call for three quotes. The quotes will then be evaluated to determine which one best meets the needs. The selection is based on price, delivery, discount and type of business. The Contract Specialist will then select a supplier.

2. Input

   - Buyer's List
   - PR

3. Control

   - FAR Chapter 13

4. Output

   - Supplier to fill Purchase Order

5. Resources

   - EPA Administrative Services Contract Specialist

G. <u>Issue Purchase Order (PO)</u>

1. Description

   When the suppliers are contacted for quotes, the Contract Specialist will ask if they will accept an oral purchase order or if they prefer a written one. EPA prefers to use the oral one since it saves time for both parties. Some purchase orders of up to $10,000 can be orally agreed to. (Refer to D. Purchase Request) Purchase Orders for over $25,000 are issued out of EPA Headquarters.

   Once the Purchase Order number is given to the Supplier, whether oral or written, and the Supplier begins to perform, it is considered a binding contract.

2. Input

   - PR
   - Supplier

3. Control

   - FAR Chapter 13

4. Output

   - EPA Approved PO

5. Resources

- EPA Administrative Services Contract Specialist

H. Fulfill Purchase Order

1. Description

   The Supplier fills the order and makes delivery based upon the Purchase Order.

2. Input

   - PO
   - Services/Products

3. Control

   - FAR Chapter 13

4. Output

   - Delivered products/services

5. Resources

   - Supplier

I. Schedule Payment

1. Description

   The invoice should not accompany the items. The invoice must be sent directly to the Finance office. Based upon the date of receipt of the invoice and the receiving report, which is an internal process at EPA, the appropriate office will send the receiving report to Finance stating that the invoice can be paid.

   If the contract is for services, for example consulting, the originating office will do the receiving report and in a lot of cases partial payments will be made. If it is a 6-month consulting service, they can partial invoice every thirty days. The originating office will do a receiving report every 30 days based upon the consultant meeting all of the requirements. This is set up in the contract.

2. Input

   - Invoice

3. Control

   - FAR Chapter 13

4. Output

   - Payment schedule

5. Resources

   - Regional Finance Office

J. Receive Payment

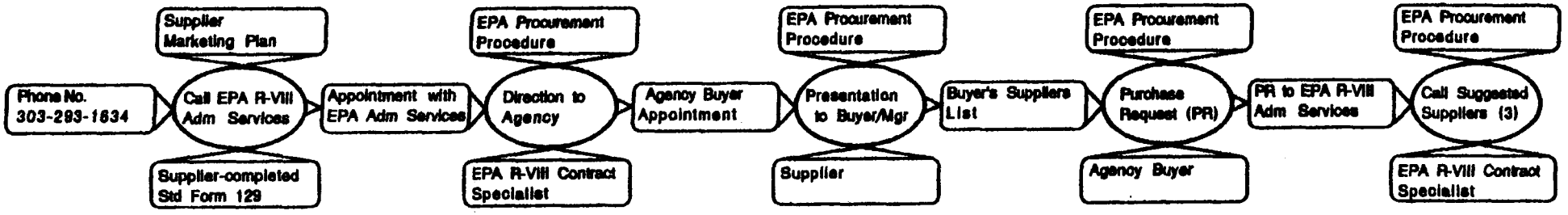
1. Description

The payment is made 30 days from the date of receipt of invoice and receiving report (whichever is later) at the Finance Office or the terms established by the prompt payment discount offered by the vendor (i.e., 2% 10, net 30). Allow another 5-7 days for the check to be delivered through the mail from Kansas City.

2. Input
   - Payment schedule
3. Control
   - FAR Chapter 13
4. Output
   - Check to supplier
5. Resources
   - Regional Finance Office

K. ***EXAMPLE:*** EPA Region VIII Procurement Flow

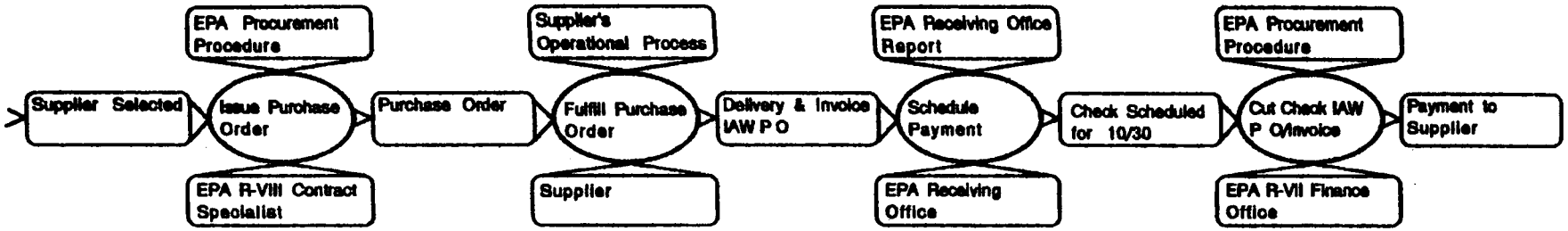
EPA Region VIII Procurement Flow



BRANCHES
- Air
- Water
- Hazardous Waste
- Safety
- Facilities
- Computer (IM)
- Laboratory

CONTRACTS
(Blanket Purchase Agreements, Purchase Orders, & Delivery Orders)
- Asbestos Removal
- Paving
- Hazardous Waste Removal
- Hazardous Waste Transportation
- Hazardous Waste Containers
- Instrumentation
- Laboratory Supplies
- Safety Equipment
- Moving
- Maintenance (Phone & Eulpment)
- Office Supplies
- Contract Labor
- Courier Services

Selection Considerations
- Price
- Delivery
- Discount (Net10/30)
- Type of Business



Check out Net 10/30 days from receipt of invoice in Finance Office, invoice tracked by PO No.

Governor's Job Training Office (GJTO)
"Smarter Environmental Entrepreneurs" (SEE)
Pilot Program
By Complexity Simplified, Inc
1/18/91

XV. HOW DO I MARKET AND SELL TO EPA CONTRACTS?

The Region VIII Contract Department's function is to monitor the Superfund contracts implementation as well as contracting for small and small disadvantaged businesses focusing on 8(a) contractors. The Region VIII Contracts Office can issue contracts up to $10M with local approval and up to $50M with Central Office approval. These contracts are all listed in Commerce Business Daily and BASnet.

A. Prepare to Sell

In order to reach the point of negotiation of a contract, there are two major steps that must be taken -- marketing and sales. Marketing, getting your Company name before potential customers, and getting on their bid/mailing list is the first and most important step. Second, once you have their attention and an opportunity to sell, you must be prepared to present and close the sale.

B. Make the Initial Contact

1. Description

Inquiries are received by the EPA Region VIII Superfund Contracts Office. Based upon the contractors services, contractors are instructed as to the types of contracts they might bid against. If there is a match, they are instructed to fill out a standard Form 129 and submit it to the Contracts Office. Completion of the Form 129, places them on the Bidders Mailing List. Based on the Contracts they perform, the Contracts Office will mail related bids/RFPs to them as they become available.

If the purchase is for more than $25,000 EPA can make the purchase a set-aside for 8(a) or compete the bid/RFP. They cannot be a large and a small business -- they have to be all large or all small businesses. The small businesses can be in different categories -- minority owned, women owned, or minority/women owned. EPA can compete the three bids as long as they are small businesses. It can't be a mix of small and big. It either has to be all small or all big.

2. Input

- Completed EPA Form 129

3. Control

- Federal Acquisition Regulation (FAR) Chapter 13 and EPA Procurement Regulations

4. Output

- Appointment with appropriate agency or "no fit"

5. Resources

- Region VIII Superfund contracts

C. Understand the Superfund Process

1. Description

The EPA Region VIII Contracts Officer will explain the contracting process, the options, and the terms and conditions.

2. Input

- Completed Form 129

3. Control
   - FAR Chapter 13
4. Output
   - List of Superfund opportunities

     - Site-Specific Project Management
       Site planning
       Project monitoring and control
       Project coordination

     - Remedial Planning
       Project planning
       Community relations
       Field investigation
       Sample analysis and validation
       Data evaluation
       Assessment of risks
       Treatability study/pilot testing
       Remedial investigation reports
       Remedial alternatives screening
       Remedial alternatives evaluation
       Feasibility study/R1/FS reports
       Enforcement support
       Miscellaneous support
       Expedited response action

     - Remedial Design
       Project planning
       Community relations
       Data acquisition
       Sample analysis/validation
       Data evaluation
       Traceability study/pilot testing

     - Remedial Implementation
       Procurement support
       Construction management
       Technical engineering services
       Preliminary design 30%
       Equipment/Service procurement
       Intermediate design 60%
       Pre-final/Final design 90-100%
       Post remedial design support

     - Other Technical and Management Assistance
       Remedial oversight
       Enforcement support
       Community relations
       Data management
       Analytical support
       Other technical support
5. Resources
   - Region VIII Contracts Officer
   - Contractor

D. Receive Bid/RFP

1. Description

Each Superfund contract will be developed through the bid/RFP process.

The Bid/RFP is prepared and entered into the computer for tracking purposes. The Bid/RFP is then assigned to the Buyer.

All federal agency contracting is regulated by the Federal Acquisition Regulation (FAR), Chapter 13. The FAR states that you only need three resources to compete. However, the EPA Acquisition Regulation (EPAAR) requires 3 responsive responsible bidders.

Regulations state that a contract of greater than $25,000 must be competed but can be approved locally. A bid/RFP greater than $10M up to $50M must be approved by the Central Office. A Bid/RFP has to be published in the Commerce Business Daily.

2. Input

• Superfund cleanup

3. Control

• FAR 13

4. Output

• Region VIII Superfund bid/RFP

5. Resources

• Region VIII Superfund Contracts Officer

E. Attend Pre-Bid Conference

1. Description

The Bid/RFP will call for a pre-bid conference depending on the nature of the Bid/RFP. The pre-bid conference is conducted to verify that all interested parties have a clear understanding of the Superfund needs.

2. Input

• Bid/RFP

3. Control

• FAR Chapter 13

4. Output

• Contractors with a clear understanding of the Bid/RFP process.

5. Resources

• Region VIII Superfund Contracts Officer

F. Prepare Bid/RFP

1. Description

The Contractor(s) prepare the bid/proposal in accordance with the Bid/RFP request.

2. Input

- Bid/RFP
- Pre-bid/RFP Conference

3. Control
   - FAR Chapter 13
4. Output
   - Contractors Bid/Proposal
5. Resources
   - Contractor(s)

G. Obtain Contract Award

1. Description

   The EPA Region VIII Contracts Officer will award the bid to the winning contractor and/or negotiate the proposals.
2. Input
   - Bids/RFPs
3. Control
   - FAR Chapter 13
4. Output
   - Winning contract award
5. Resources
   - EPA Region VIII Superfund Contracts Officer

H. Perform Contract

1. Description

   The Contractor will perform the tasks in accordance with the negotiated contract and report as stipulated in the contract.
2. Input
   - Negotiated contract
3. Control
   - FAR Chapter 13
4. Output
   - Contract deliverables
5. Resources
   - Contractor

I. Schedule Payment

1. Description

   The invoice should not accompany the items. The invoice must be sent directly to the Finance office. Based upon the date of receipt of the invoice and the receiving report, which is an internal process at EPA, the appropriate office will send the receiving report to Finance stating that the invoice can be paid.

   If the contract is for services, for example consulting, the originating office will do the receiving report and in a lot of cases partial payments will be made. If it is a 6-month

consulting service, they can partial invoice every thirty days. The originating office will do a receiving report every 30 days based upon the consultant meeting all of the requirements. This is set up in the contract.

2. Input
   - Invoice
3. Control
   - FAR Chapter 13
4. Output
   - Payment schedule
5. Resources
   - Regional Finance Office

J. <u>Receive Payment</u>

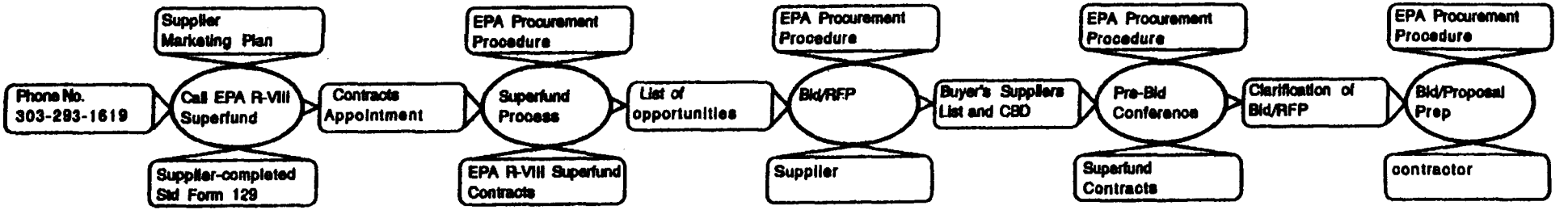
1. Description

The payment is made 30 days from the date of receipt of invoice and receiving report (whichever is later) at the Finance Office or the terms established by the prompt payment discount offered by the vendor (i.e., 2% 10, net 30). Allow another 5-7 days for the check to be delivered through the mail from Kansas City.

2. Input
   - Payment schedule
3. Control
   - FAR Chapter 13
4. Output
   - Check to supplier
5. Resources
   - Regional Finance Office

K. ***EXAMPLE:*** EPA MSWE/8(a) Region VIII Services Contract Flow

EPA MSWBE/8(a) Region VIII Services Contract Flow

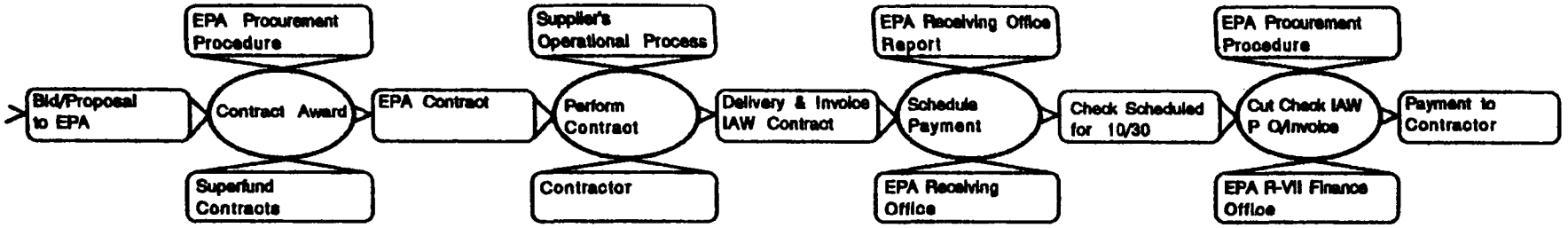


EPA to focus on 8(a) Contractors through the SBA 8(a) Program, SBA then contracts with 8(a) Firm

BRANCHES
- Superfund
- ARCS

CONTRACTS (Blanket Purchase Agreements, Purchase Orders, & Delivery Orders)

- ***Site-Specific Project Management***
  - Site Planning
  - Project Monitoring and Control
  - Project Coordination
- ***Remedial Planning***
  - Project Planning
  - Community Relations
  - Field Investigation
  - Sample Analysis and validation
  - Data Evaluation
  - Assessment of Risks
  - Treatability Study/Pilot Testing
  - Remedial Investigation Reports
  - Remedial Alternatives Screening
  - Remedial Alternatives Evaluation
  - Feasibility Study/RI/FS Reports
  - Enforcement Support
  - Miscellaneous Support
  - Expedited Response Action



CONTRACTS (Blanket Purchase Agreements, Purchase Orders, & Delivery Orders)

- ***Remedial Design***
  - Project Planning
  - Community Relations
  - Data Acquision
  - Sample Analysis/validation
  - Data Evaluation
  - Treatability Study/Pilot Testing
  - Preliminary Design 30%
  - Equipment/Service Procurement
  - Intermediate Design 60%
  - Prefinal/Final Design 90-100%
  - Post remedial Design Support
- ***Remedial Implementation***
  - Procurement Support
  - Construction Management
  - Technical Engineering Services
- ***Other Tech & Mgt Assistance***
  - Remedial Oversight
  - Enforcement Support
  - Community Relations
  - Data Management
  - Analytical Support
  - Other Technical Support

Check out Net 10/30 days from receipt of invoice in Finance Office, invoice tracked by PO No.

Governor's Job Training Office (GJTO)
"Smarter Environmental Entrepreneurs" (SEE)
Pilot Program
By Complexity Simplified, Inc
1/18/91

XVI. HOW DO I MARKET AND SELL TO EPA/DOE PRIMES?

A. Make the Initial Contact

1. Description

Potential subcontractors should call or visit firms that they seek to do business with to accomplish the following:

• Determine what products/services you have that the firm could use.

• Determine who in the firm makes the requests for products/services (technical personnel).

• Determine who procures the products/services.

• Determine what must be done to get on a "bidder's list".

It is best to meet with those persons who are the requesters and those persons who actually place the orders or issue Invitation For Bids (IFBs).

Each firm has its own procedures for procuring products/services. Find out as much as you can about the procedures.

2. Input

• Completed Standard Form 254, Architect-Engineer and Related Services Questionnaire.
• Completed Standard Form 255, Architect-Engineer and Related Services Questionnaire or other SOQ for specific project.
• Appointment with buyer

3. Control

• Corporate Procurement Policy and Federal Acquisition Regulations.

4. Output

• Appointment with buyer, project manager, or "no fit"

5. Resources

• Administrative Manager or Director of Purchasing

B. Obtain Direction to Prime

1. Description

Once the Administrative Manager or Purchasing contact determines that there is a possible match with one of the project managers, arrangements are then made for a presentation to the appropriate personnel.

2. Input

• Purchase Request from Project Manager

3. Control

• Federal Acquisition Regulations
• Procurement Policies

4. Output

• Appointment with appropriate personnel

5. Resources

   • EPA Administrative Services Contract Specialist
   • Suppliers

C. Make Brief Presentation to Buyer/Manager

1. Description

   The Supplier provides a 15-minute briefing to present their products/service to the appropriate personnel.

   Note: "Working with the buyer" does not mean giving away the farm. It means the supplier should let the buyer know his company will be as flexible as possible to meet his needs. Also, express desire to make the sale and show appreciation. This can have at least a psychological effect on the buyer. Even if you don't make this sale, you will be remembered as cooperative and will be well positioned for the next purchase by that firm.

2. Input

   • Supplier briefing to appropriate personnel
   • Samples and references, if available

3. Control

   • Time limitations

4. Output

   • Buyer with clear understanding of supplier's products/service

5. Resources

   • Knowledge of the Buyer's needs
   • Knowledge of the Buyer's firm and operations

D. Receive Purchase Request

Each firm will have unique purchasing procedures. If they are using Federal funds, they will generally follow FAR regulations to a degree. If corporate funds are used, they will use only their purchasing procedures.

All federal agency purchasing is regulated by the Federal Acquisition Regulation (FAR). The FAR states that you only need three resources to compete. However, the EPA Acquisition Regulation (EPAAR) requires 3 responsive responsible bidders.

Regulations state that a contract of between $1 and $2,500, does not have to be competed. Anything over $2,500 must be competed. A request between $2,500 and $10,000 can be responded to verbally. A request over $10,000 is to be written. A request for less than $2,500 does not need a sole source justification.

There are occasions in a request for consulting, the requester or originator will write a statement of work. The statement of work will then be sent out to each resource. The resource will then respond to that statement of work with their bid.

1. Description

The requester/buyer will generally request price quotes from the three resources and put that amount on the PR so that amount of dollars can be allocated. The resource people should be aware that when an individual calls and they are not a contracting specialist, they are usually calling for quotes only, and not to order the service or the product. Obligations only come from the Contracting Specialist.

2. Input
   - Buyer's List
   - Purchase Request from Project Manager
3. Control
   - Federal Acquisition Regulation
   - Corporate Purchasing Procedures
4. Output
   - Supplier to fill Purchase Order
5. Resources
   - Small Business Administration

E. <u>Call Suggested Suppliers</u>

1. Description

   The buyer will generally call for three quotes. The quotes will then be evaluated to determine which one best meets the needs. The selection is based on price, delivery, discount and type of business. The buyer will then select a supplier. The supplier should express willingness to work with the buyer to meet all possible terms and conditions.

2. Input

- Buyer's List
- Purchase Request from Project Manager

3. Control

- Federal Acquisition Regulations
- Corporate Purchasing Procedures

4. Output

- Supplier to fill Purchase Order

5. Resources

- Small Business Administration

F. Issue Purchase Order

1. Description

When the suppliers are contacted for quotes, the Buyer may ask if they will accept an oral purchase order or if they prefer a written one.

Once the Purchase Order number is given to the Supplier, whether oral or written, and the Supplier begins to perform, it is considered a binding contract.

Note: Be sure to get the delivery schedule. Receiving goods/services when they are needed is more important than the cost.

2. Input

- PR
- Supplier

3. Control

- Federal Acquisition Regulations
- Corporate Procurement Procedures

4. Output

- Approved Purchase Order

5. Resources

- Small Business Administration
- Project Manager

Note: The Project Manager can be a resource in that he may provide information to the supplier about his needs, delivery schedule, etc. It also helps for future business to talk with the Project Manager to assure his satisfaction.

G. Fulfill Purchase Order

1. Description

The Supplier fills the order and makes delivery based upon the Purchase Order.

2. Input

- PO
- Services/Products

3. Control

- Supplier's capabilities, capacity
- Federal Acquisition Regulations
- Procurement Procedures

4. Output

   - Delivered products/services

5. Resources

   - Supplier

H. <u>Schedule Payment</u>

1. Description

   The invoice should not accompany the items. The invoice should be sent directly to the Buyers or others as instructed. Based upon the date of receipt of the invoice and the receiving report, the buyer will send notice to Finance or Accounts Payable stating that the invoice can be paid.

   If the contract is for services, for example consulting, partial payments may be made. Terms of payment are generally preprinted on the Purchase Order.

2. Input

   - Invoice

3. Control

   - Federal Acquisition Regulations
   - Procurement Policies

4. Output

   - Payment schedule

5. Resources

   - Accounts Payable
   - Buyer

I. Receive Payment

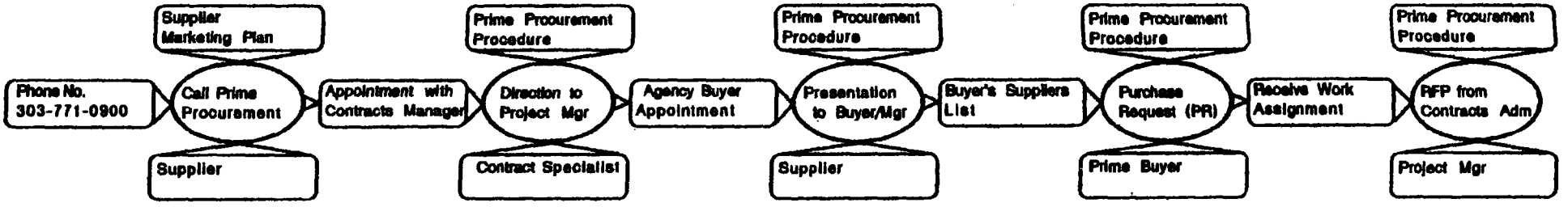
1. Description

The payment is generally made 30 days after receipt of invoice or depending on the discount. Allow another 5-7 days for the check to be delivered. If payment is not made according to the Purchase Order, you should call the Buyer to be sure all terms were met by the Supplier, and find out when payment will be made.

2. Input
   - Payment schedule
3. Control
   - Federal Acquisition Regulations
   - Procurement Procedures
4. Output
   - Check to supplier
5. Resources
   - Buyer

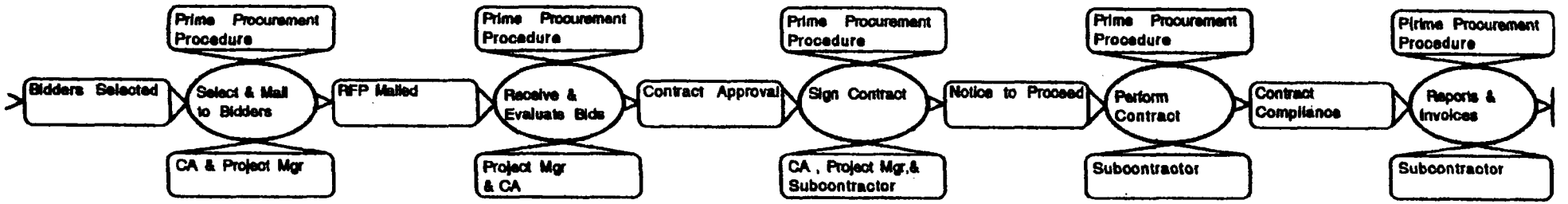
J. *EXAMPLE:* Prime Procurement Flow

Prime Procurement Flow



PROJECTS
- Air
- Water
- Hazardous Waste
- Safety
- Facilities
- Computer (IM)
- Laboratory
- Supplies
- Consultants
- Engineers
- Specialist

CONTRACTS
(Blanket Purchase Agreements, Purchase Orders, & Delivery Orders)
- Asbestos Removal
- Paving
- Hazardous Waste Removal
- Hazardous Waste Transportation
- Hazardous Waste Containers
- Instrumentation
- Laboratory Supplies
- Safety Equipment
- Moving
- Maintenance (Phone & Eulpment)
- Office Supplies
- Contract Labor
- Courier Services



Selection Considerations
- Price
- Delivery
- Discount (Net10/30)
- Type of Business

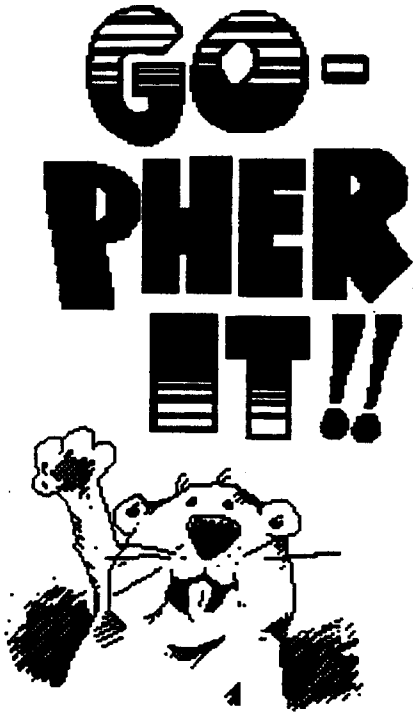
APPROVAL & PAYMENTS
Check out Net 10/30 days from receipt of invoice in Finance Office

Governor's Job Training Office (GJTO)
"Smarter Environmental Entrepreneurs" (SEE)
Pilot Program
By Complexity Simplified, Inc
1/18/91

XVII. HOW IMPORTANT IS CONTRACT COMPLIANCE?

A contract compliance system must be developed to provide detailed accountability for all project funds received and expended. Financial reports must be utilized for program monitoring and management. Specialized reports must be completed as required by program funding sources.

Both the prime and MSWE contractors are in need of an integrated project management system for the planning and operations of small, medium, and large projects. The contract compliance system could utilize systems such as Lotus 1,2,3 and Artemis software for project tracking by primes and participating MSWE subcontracts, with input via disk, direct input or modem. This type of system will enable easy statusing (daily, weekly, or monthly) as the project management demands.

XVIII. ONCE I HAVE THE CONTRACT, IS THAT IT?

Once the contract has been negotiated and signed; tasks, schedule and cost must be finalized and planned to meet the contract requirements. The contract should be scheduled with initial and intermediate milestones to enable monitoring, status, and reporting to meet contract objectives.