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Technical Assistance Contractor Management Plan

Surface and Ground Water

SEPTEMBER 1994

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TECHNICAL ASSISTANCE CONTRACTOR MANAGEMENT PLAN

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Prepared for
U.S. Department of Energy
UMTRA Project Office
Albuquerque, New Mexico

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LIST OF ACRONYMS AND ABBREVIATIONS

Acronym	Definition
AADITS	Assessment and Analysis Documentation and Information Tracking System
ADS	activity data sheet
AEA	Atomic Energy Act
AGRA	AGRA Earth and Environmental
ANSI	American National Standards Institute
ASER	annual site environmental report
ATLAS	Automated Travel Logging and Awareness System
BCR	baseline change request
BLM	Bureau of Land Management
BLRA	baseline risk assessment
CAM	control account manager
CARD	Characterization and Remedial Design
CCB	Change Control Board
CFR	Code of Federal Regulations
COR	contracting officer's representative
CPM	critical path method
CPR	cost performance report
CR/PIP	Cost Reduction/Productivity Improvement Program
CSCSC	cost/schedule control system criteria
CSE	cost/schedule engineer
CSSM	computer security site manager
DAD	detailed activity description
DAR	DOE acquisition regulations
DCAA	Defense Contract Audit Agency
DCO	data collection objective
DCPPM	divisional computer protection program manager
DID	deliverable item description
DMA	Data Management and Assessment
DOE	U.S. Department of Energy
DQO	data quality objective
EA	environmental assessment
EPA	U.S. Environmental Protection Agency
EPIP	Environmental Protection Implementation Plan
ER/WM	Environmental Restoration and Waste Management
ESAAB	Energy System Acquisition Advisory Board
ES&H	environment, safety, and health
ETC	estimate to completion
FAR	Federal Acquisition Regulations
FTR	federal travel regulations
G&M	Geraghty & Miller, Inc.
HMTA	Hazardous Materials Transportation Act
ICE	independent cost estimate
IPMS	Integrated Project Management System

LIST OF ACRONYMS AND ABBREVIATIONS (Continued)

Acronym	Definition
ISPS	Information Systems Planning and Support
ITR	independent technical review
JEG	Jacobs Engineering Group Inc.
LAN	local area network
LOE	level of effort
LTSP	long-term surveillance plan
MAP	minimal accepted procedure
M&IE	meals and incidental expenses
MPCE	major project cost estimate
MSA	major system acquisition
NARA	National Archives and Records Administration
NEPA	National Environmental Policy Act
NRC	U.S. Nuclear Regulatory Commission
OSHA	Occupational Safety and Health Act
ORPS	Occurrence Reporting and Processing System
PC	personal computer
PCIM	Project critical issues meeting
PEIS	Programmatic Environmental Impact Statement
PERC	Paper Evaluation amd Review Committee
PGD	planned general deliverable
PLD	planned listed deliverable
PMCS	Project Management Control System
PMPR	Project Manager's progress report
PPL	project planning level
PSO	Program Secretarial Officer
PTS	progress tracking system
PUBS	Publications Services
QA	quality assurance
QAPP	quality assurance program plan
QIS	quality improvement suggestion
QIT	quality improvement team
RAC	remedial action contractor
RAP	remedial action plan
REG	Regulatory Compliance
RFW	Roy F. Weston, Inc.
ROCS	Regulatory Oversight and Compliance Support
RPM	resource planning meeting
SAFE	Safety Advancement Field Effort
SOP	standard operating procedure
SOW	scope of work
SOWP	site observational work plan
SPEAR	Software Program for Environmental Analyses and Reporting
TAC	Technical Assistance Contractor

LIST OF ACRONYMS AND ABBREVIATIONS (Concluded)

Acronym	Definition
TAD	Technical Approach Document
TAILS	TAC Action Item Logging System
TAM	TAC action memo
TAS	task assignment system
TEC	total estimated cost
T&MS	technical and management support
TPC	total project cost
TQM	total quality management
TRAIN	Training Records Administration and Information Network
UMTRA	Uranium Mill Tailings Remedial Action
UMTRCA	Uranium Mill Tailings Radiation Control Act
UPDCC	UMTRA Project Document Control Center
VAR	variable analysis report
VP	vicinity property
WBS	work breakdown structure
WSAP	water sampling and analysis plan

1.0 INTRODUCTION

1.1 OVERVIEW

The Technical Assistance Contractor (TAC) for the Uranium Mill Tailings Remedial Action (UMTRA) Project comprises Jacobs Engineering Group Inc. (JEG) as the prime contractor and three teaming partner subcontractors: Roy F. Weston, Inc. (RFW), AGRA Earth and Environmental, Inc. (AGRA), and Geraghty & Miller, Inc. (G&M). The first three companies (JEG, RFW, and AGRA) have worked together effectively on the UMTRA Project in similar roles for more than 10 years. With the initiation of the UMTRA Ground Water Project in April 1991, a need arose to increase the TAC's ground water technical breadth and depth, so G&M was brought in to augment the team's capabilities.

The TAC contract's scope is to provide technical, analytical, environmental, engineering, design, inspection, and management support services to the U.S. Department of Energy (DOE) for both surface and ground water projects. The TAC team supports the DOE in completing surface remedial action and initiating ground water remediation work for start-up, characterization, compliance planning, design, construction oversight, and remedial operations.

The TAC provides the DOE UMTRA Project Office with a dedicated management, scientific, and technical resource base in Albuquerque, New Mexico, supplemented by corporate resources. A carefully developed and maintained staff of technical experts is available to assess, analyze, develop, and execute cost-effective solutions to the demanding technical and institutional problems presented by the UMTRA Project.

The UMTRA Project is a mature DOE project that has evolved over the past decade and has developed a multitude of systems and stakeholders operating in an extremely complex infrastructure. The TAC role in this structure requires that it be constantly aware of all Project activities and keep the DOE Project Office apprised of all issues. Therefore, a key feature of the TAC's management approach is an extensive set of communication systems implemented for the UMTRA Project. These systems assist the functional disciplines in performing UMTRA Project tasks associated with management, technical support, administrative support, and financial/project controls.

This TAC management plan summarizes the management and technical approaches used by the TAC to ensure continued efficient, high-quality support to the DOE. The plan also describes the TAC organization and the systems used to control administrative and technical activities.

1.2 TAC VISION AND MISSION STATEMENTS

The following vision and mission statements serve as guiding principles and provide the highest level of direction for establishing management goals, policies, plans, procedures, and systems. They also serve as a basis for TAC self-assessment.

1.2.1 Vision statement

The UMTRA TAC team will be a world leader in the environmental restoration of uranium mining and milling operations. It will employ leading experts knowledgeable of all environmental disciplines and actively contribute to advance the state of the art. Innovative, timely, and high-quality management and technical services will be provided to the DOE UMTRA Project in a climate that encourages employee teamwork, creativity, and productivity while serving the DOE and public stakeholders.

1.2.2 Mission statement

The UMTRA Project TAC team's mission is to provide technical and management support for DOE remediation of uranium mill tailing sites. This includes planning, cost and schedule controls, site characterization, remedial action design, regulatory compliance services, quality assurance, and public affairs. The mission will be accomplished in a timely, cost-effective, and technically sound manner in full compliance with applicable regulatory standards.

1.3 TAC GOALS

The following goals, developed from the vision and mission statements, are organized within a framework reflecting various Project dimensions that must be addressed.

1.3.1 Management

To foster open and productive communication among all UMTRA Project participants and to meet the client's overall expectations:

- Provide a framework and tools for TAC staff and UMTRA Project Office staff to understand all Project issues.
- Create a working environment that encourages innovation and a free exchange of ideas, opinions, and concerns among management, employees, and the Project Office.

1.3.2 Environment, safety, and health

To conduct activities in an environmentally sound and safe manner to minimize risks to the environment and to minimize worker and public exposure to radiological and nonradiological hazards:

- Comply with the letter and spirit of all applicable environment, safety, and health (ES&H) statutes, regulations, and standards, and strive for continuous improvement beyond minimum compliance.

- Provide the UMTRA Project Office with sound ES&H support by determining the applicability of ES&H requirements and identifying options for complying with applicable requirements in a prompt and efficient manner.

1.3.3 Quality

To achieve total customer satisfaction by striving for excellence in all endeavors:

- Instill total commitment by both management and employees to top-quality products and services.

- Meet or exceed UMTRA Project Office expectations by emphasizing continuous improvement of all TAC processes.

1.3.4 Technical

To conduct all technical support activities in a timely, effective manner in compliance with regulatory requirements:

- Commit to the technical problem-solving process.

- Drive all decisions through truth and thoughtful judgment.

- Employ an interdisciplinary approach to ensure integration of natural and social sciences and visual and written arts in planning and implementing activities that affect the environment.

1.3.5 Communications

To secure informed public support for the DOE's environmental restoration mission by ensuring that all stakeholders have access to timely, factual information about the Project, its mission, goals, and progress:

- Ensure participation of the affected public in the decision-making process involving critical Project issues.

- Request and consider public input before making important decisions.

- Increase employee knowledge and motivation through the effective use of internal information and personal recognition.

- Create a working environment that encourages a free exchange of ideas, opinions, and concerns among employees, management, and the DOE.

1.3.6 People

To provide all employees a safe, comfortable, and pleasant working environment:

- Ensure that each employee has the tools necessary to perform the job effectively.

- Ensure that all employees enhance their professional development through participation in training courses, seminars, symposiums, and workshops and through membership in professional societies.

- Encourage employee career development by recognizing individual performance and potential, providing challenging assignments, and promoting top performers.

2.0 ORGANIZATION AND FUNCTIONS

2.1 TEAMING PARTNERS

JEG and its subcontractors (RFW, G&M, and AGRA) provide the resources and expertise to accomplish the TAC's responsibilities and goals. The TAC team is a fully integrated and dedicated project team. Personnel assigned to the UMTRA Project report up through the Project's functional management structure; each employee's respective company handles salary administration, employee performance reviews, and employee benefits. Regardless of corporate affiliation, input is obtained from the employee's UMTRA Project functional manager for employee performance reviews.

Table 2.1 illustrates the resources and strengths of each of the four corporations on the TAC team. The following paragraphs provide additional information on each teaming partner's strengths and contribution to the UMTRA Project.

2.1.1 Jacobs Engineering Group Inc.

JEG, headquartered in Pasadena, California, is a full-service architect-engineering firm that provides a complete spectrum of environmental project implementation services, including environmental studies, feasibility studies, permitting assistance, engineering and design, procurement, construction, and operations and maintenance. JEG has 20 offices worldwide, housing more than 4500 professional, technical, scientific, and support personnel and 8000 field construction employees.

As the prime contractor on the UMTRA Project, JEG provides overall project management and support and a variety of other administrative services to the UMTRA Project Office. These include management services to support the DOE Project Office oversight of all other DOE contractors, contract/procurement, facilities, computer support, public relations, construction safety, and design engineering.

2.1.2 Roy F. Weston, Inc.

RFW, headquartered in West Chester, Pennsylvania, is a multidisciplinary consulting firm engaged in all aspects of environmental management, including regulatory compliance, environmental engineering, and health and safety services. RFW maintains a staff of more than 2800 professionals in 40 offices nationwide under a variety of disciplines, including chemical, civil, and environmental engineering, biological sciences, computer technology, construction management, ecology, fluid mechanics, geosciences, hydrology, computer simulation and modeling, toxicology, industrial hygiene, health physics, and systems engineering.

Table 2.1 Teaming partner resources and strengths

Jacobs Engineering Group Inc.	Roy F. Weston, Inc.	Geraghty & Miller, Inc.	AGRA Earth and Environmental, Inc.
Program management	Ground water remediation	Ground water remediation engineering	Geotechnical engineering
Project controls	Liquid waste treatment	Ground water protection/ restoration	Geology
Quality assurance/quality control	Mixed waste feasibility development	Regulatory analysis/compliance	Site characterization
Health and safety	Hazardous waste treatment (remediation)	Specialty groups—modeling risk assessment, air quality, geophysics	Hydrogeology/modeling
Regulatory compliance	Process systems	Technical management	Geomorphic assessments
Risk assessment	Health and safety		Surface facility remediation
Cost/benefit optimization	Risk assessment		Seismic evaluations
Safety analysis	Regulatory compliance		Aquifer restoration
Environmental documentation	Environmental documentation		Risk assessment
Geotechnical engineering	Program management		Civil engineering
Technical management	Technical management		
Process systems	Project controls		

RFW supports JEG in overall project and technical management. RFW also adds to the team its extensive experience in regulatory compliance evaluation, health physics, National Environmental Policy Act (NEPA) services, and contamination investigation and modeling.

2.1.3 Geraghty & Miller, Inc.

G&M, a wholly owned & independently operated company of Heidemij NV, has operating headquarters in Denver, Colorado, and corporate headquarters in New York. G&M is a multimedia, full-service environmental firm established in 1957; G&M has a staff of over 1200 (professional, technical, and support) in 50 offices across the United States.

G&M supports the TAC effort by providing expertise in ground water contamination investigations, ground water modeling, risk assessment, restoration feasibility studies, and ground water remediation.

2.1.4 AGRA Earth & Environmental, Inc.

AGRA is a progressive and innovative environmental, geotechnical, and materials engineering organization headquartered in Kirtland, Washington. AGRA maintains a staff of more than 600 employees consisting of registered professional engineers, environmental specialists, risk assessors, geologists, hydrogeologists, engineering geophysicists, laboratory and field technicians, drillers, and support personnel at offices in the western United States, Alaska, and Mexico. AGRA's contribution to the UMTRA Project are in the areas of ground water hydrology, geotechnical engineering, risk assessment, and field technical support.

2.2 PROJECT ORGANIZATION STRUCTURE

The TAC has developed a streamlined, flexible, and responsive organization (Figure 2.1) to meet the needs of both surface and ground water remedial action projects. Key technical and management personnel have been assigned to the UMTRA Project as dedicated full-time employees from each of the teaming partners.

A matrix management structure provides support to the surface and ground water projects. Required technical personnel from respective functional departments are assigned on a site-by-site basis, reporting to site managers, to provide the expertise to complete assigned site-related activities.

The TAC organizational structure reflects the multidisciplinary nature of its assigned scope of work (SOW). The following sections describe in more detail each TAC department's mission, internal organization, and responsibilities.

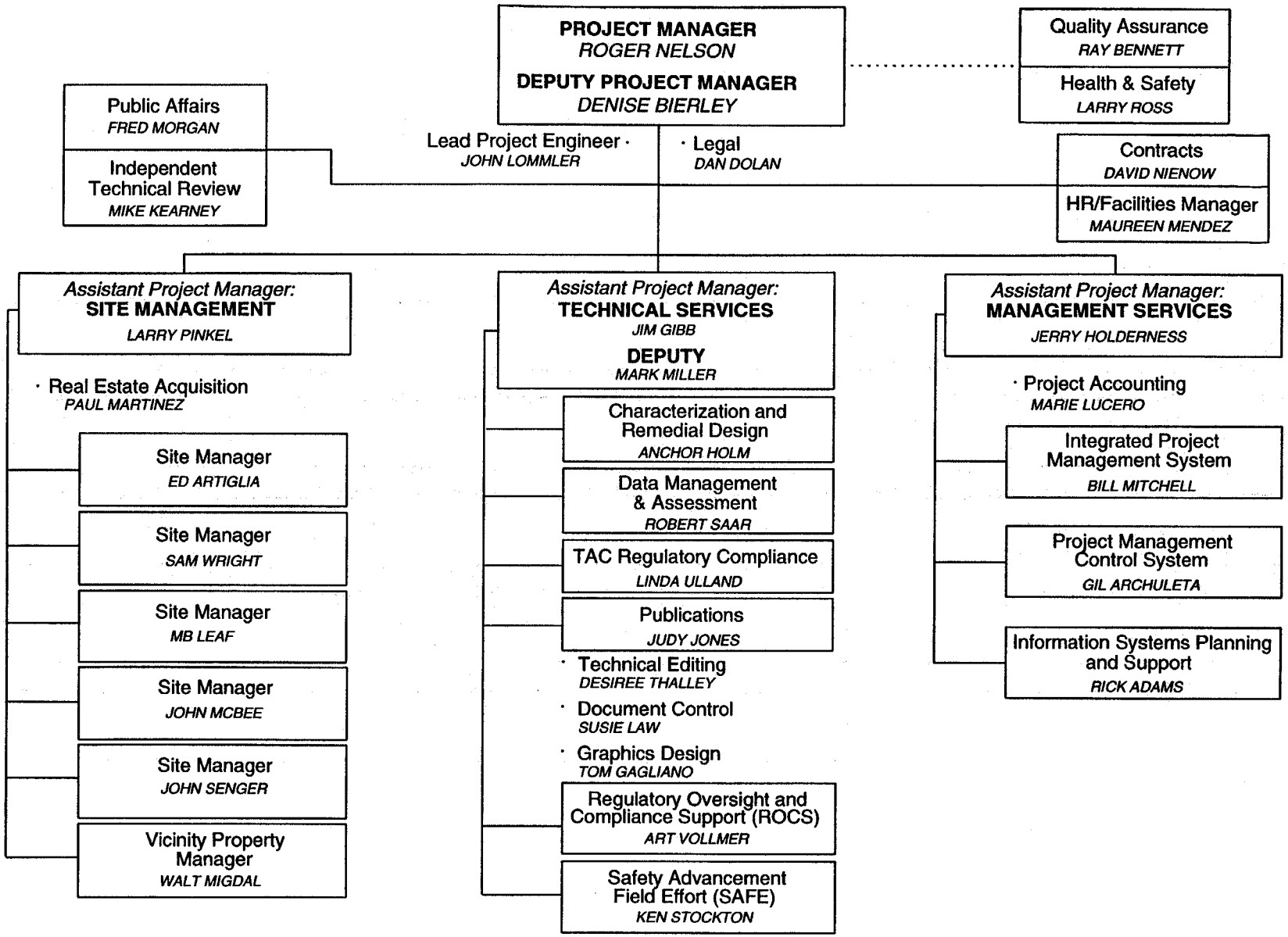

FIGURE 2.1
UMTRA PROJECT TECHNICAL ASSISTANCE CONTRACTOR

2.3 PROJECT MANAGEMENT

The TAC management structure mirrors that of the DOE Project Office and includes the TAC Project Manager, Deputy Project Manager, and three assistant project managers. The management staff tracks the needs and requests of the DOE; the U.S. Nuclear Regulatory Commission (NRC), the licensing agency for the UMTRA Project; affected states and tribes; other cooperating agencies; local governments; the U.S. Congress; and other Project stakeholders. Through this continuing assessment of UMTRA Project requirements, both short- and long-term guidance is provided to the functional departments.

2.3.1 Project Manager

The TAC Project Manager develops the TAC's vision, mission, and policy and conveys them to all staff through regular meetings, face-to-face discussions, and other communication means. Endorsing DOE ES&H and ensuring compliance with ES&H laws and regulations are top priorities. The Project Manager attempts to inspire by example, continually applying quality management practices.

The TAC Project Manager develops strategies for Project planning and problem solving, and ensures the establishment and effective use of adequate systems, controls, baselines, and other management tools. The Project Manager also must ensure that operations comply with applicable statutes, regulations, and standards to minimize risks to the environment and public health.

Other roles of the TAC Project Manager are:

- Maintaining an appropriate and effective TAC organizational structure.
- Fostering, encouraging, and facilitating effective DOE communications at all levels.
- Planning and implementing constructive improvements in operations to better serve the DOE's needs.
- Measuring DOE satisfaction and conveying the level of satisfaction to the TAC staff with appropriate follow-up.
- Ensuring availability of adequate staff, appropriately trained to meet Project needs.
- Maintaining staff morale and commitment to quality throughout the Project.

2.3.2 Deputy Project Manager

A Deputy Project Manager assists the Project Manager to ensure management continuity. The Deputy Project Manager serves in the Project Manager's absence, assuming the same roles and responsibilities described above. The Deputy Project Manager also chairs the TAC Quality Council (Section 6.1) and leads implementation of quality improvement programs that are integrated into TAC operations. Other Deputy Project Manager responsibilities include:

- Serving as the liaison between the TAC and the NRC.
- Communicating with and supporting DOE and the remedial action contractor (RAC) Deputy Project Managers.
- Coordinating the initiation, TAC and DOE review, and presentation of UMTRA Project technical papers.
- Coordinating the development of special studies with TAC and DOE review and ensuring meeting special studies goals.
- Initiating and coordinating independent technical reviews with appropriate follow-up for corrective actions.
- Coordinating program briefing preparations.

2.3.3 Assistant project manager

The assistant project managers support the Project by managing the operations and staff of the three major organizational groups: Site Management, Technical Services, and Management Services. They share the following responsibilities:

- Supervising staff to meet organizational assignments, providing technical and management support and expertise to the DOE, and developing strong personal working relationships with DOE and RAC counterparts.
- Endorsing the DOE's policy to give top priority to ES&H issues and ensuring compliance with applicable ES&H laws and regulations.
- Ensuring development and application of adequate and appropriate planning systems, controls, baselines, and other management tools.
- Identifying, encouraging, and implementing innovative and cost-saving approaches to UMTRA Project challenges. Motivating staff to use best management practices, striving for continuous quality improvement, and integrating quality initiatives into normal operations.
- Developing staff succession plans and serving as staff mentors to use succession and required training resources as staff members pursue their

career development goals. Actively promoting the development of staff managerial skills and seeking opportunities for staff members to be given responsibility and commensurate authority to accomplish specified tasks.

- Coordinating with other Project management staff to maintain overall UMTRA Project priorities and ensuring smooth integration of technical services, site management, health and safety, and project controls.

- Ensuring that Project records are captured and maintained in an appropriate manner for future use.

- Performing duties of the control account manager for assigned accounts: planning, scheduling, and budgeting; directing work scheduled; measuring and evaluating cost, scheduling, and technical performance; informing the Project Manager of cost and schedule variances promptly.

The assistant project manager for Site Management has the following specific duties:

- Ensuring site-specific objectives are accomplished, including satisfying DOE deliverable requirements, Project and site planning, and site cost/schedule performance.

- Managing TAC support to the vicinity property program, real estate acquisition, and site licensing coordination.

The assistant project manager for Technical Services has the following specific duties:

- Providing technical leadership for planning, staffing, and executing TAC activities.

- Hiring and developing technical services staff with the knowledge and expertise in required disciplines to support and achieve UMTRA Project objectives.

- Ensuring compliance of in-house and field operations personnel with applicable statutes, regulations, and standards to minimize risks to the environment and public health.

- Coordinating and directing the activities of the technical managers in their preparation of integrated, time-phased budgets for each assigned task. Providing requested support in preparing federal budgets, baseline budgets, and independent cost estimate (ICE) reviews.

- Ensuring that the technical quality of the work produced by technical staff meets the high standards of the UMTRA Project by conducting the necessary mentoring, peer review, and technical review of documents and

presentations. Serving as a member of the Paper Evaluation and Review Committee (PERC).

The assistant project manager for Management Services has the following specific duties:

- Developing, maintaining, and operating the formal planning, performance measurement, and reporting systems used by the DOE and the TAC.
- Providing computer systems support to DOE Project Office and TAC personnel.
- Ensuring the development and application of adequate and appropriate management systems and controls, baselines, and other management tools.
- Ensuring the inclusion of labor hours, travel, and subcontract requirements for integrated, time-phased budgets for each UMTRA Project task.
- Informing the Project Manager, Deputy Project Manager, and other assistant project managers in a timely manner of cost and schedule variances.
- Maintaining system documentation and providing TAC staff with earned value planning, budgeting, performance reporting systems and support, critical path method (CPM) scheduling, periodic contract reports, and integrated budget/schedule projections.
- Administering the cost reduction program, maintaining systems documentation, and developing new and innovative methods, systems, and practices.
- Coordinating comprehensive programmatic support to the UMTRA Project Office in preparing federal budgets. Preparing materials for baseline budget reviews, budget validation reviews, and ICE reviews, performance reporting, Project scheduling, change control, and estimating.
- Coordinating the provision of hardware, software, training, planning, local area network (LAN) administration, and custom software development services for all TAC and UMTRA Project Office operations.

2.4 SITE MANAGEMENT

The Site Management organization provides management focus, coordination, and direction for planning and executing all site-related activities in compliance with applicable requirements and supports the DOE site managers' line management role. To achieve this, the TAC site managers act as project managers for assigned sites supporting a DOE site manager counterpart. The assistant project manager for Site Management acts as a manager of projects

and supports the DOE's Engineering and Construction Group Manager; the other assigned Site Management specialists support TAC and DOE site managers.

The site managers and technical specialists in the Site Management organization report directly to the assistant project manager for Site Management who, in turn, reports to the Project Manager.

2.4.1 Site management

The TAC site managers have the responsibility and authority to plan, initiate, and take such actions as may be necessary to ensure the successful completion of site activities authorized under the fiscal year task plans. They provide a single focus for all aspects of site work to attain established technical, cost, and schedule objectives. In addition, it is the policy of the TAC that all site-specific external interactions and commitments by the TAC are made by, or through, the site managers.

The site managers accomplish these requirements by coordinating with and relying upon the support of their counterparts and peers, the technical and support managers within the TAC's matrix structure. Through a continuous and often intense process of communication, coordination, and detailed planning, appropriately skilled technical and support staff are identified for site teams, specific assignments are made to site team members, technical issues are resolved, and control of cost and schedule performance is maintained through the conclusion of each specified activity.

Following are specific responsibilities of the Site Management organization.

- Developing and maintaining site-specific plans that support the DOE's technical, cost, and schedule guidance, consistent with established UMTRA Project priorities.
- Supporting the development of overall Project plans and approaches, ensuring appropriate consideration of site-specific factors.
- Coordinating with TAC technical managers and support managers to obtain adequate resources to accomplish site objectives.
- Directing the planning and execution of all site activities to ensure effective performance and integration of technical, EH&S, regulatory, public information, and quality assurance efforts.
- Serving as the TAC focal point for site-related communications, both internal and external.
- Ensuring the establishment and maintenance of adequate and effective day-to-day Site Management systems and communications.

- Reviewing and approving site-specific reports, technical documents, and plans to ensure that applicable technical, political, cultural, and historical issues and perspectives have been appropriately addressed.

- Identifying risks to technical, cost, and schedule objectives; performing variance analyses and formulating corrective action plans when performance deviates significantly from plan; developing periodic updates to cost and schedule forecasts; and providing timely reporting of work status and issues to TAC management and the DOE.

2.4.2 Real estate support

The TAC assists the DOE in real estate acquisition and access activities by identifying requirements, developing, supporting, and coordinating execution of plans, and reporting the status of ongoing activities. The majority of this assistance is provided by a dedicated real estate specialist responsible for coordinating all facets of real estate management support. The TAC's real estate responsibilities include the following:

- Identifying site-specific real estate work to be performed and drafting work orders that describe the work to be accomplished.

- Obtaining monitor well agreements and ensuring access to properties on which monitor wells will be constructed and maintained for the purpose of long-term sampling.

- Acquiring licenses and permits, including use agreements, rights-of-way, rights-of-entry for construction, and railroad crossing licenses.

- Assuring that documented studies and proposals to acquire real property and plans for its utilization are made with full consideration of economy, efficiency, programmatic need, and all applicable laws and regulations.

- Coordinating with the Bureau of Land Management (BLM) for the administrative withdrawal and jurisdictional transfer of public land from the BLM to the DOE, and ensuring permanent rights-of-entry to the disposal cells from state or county roads.

- Coordinating with the BLM, U.S. Army Corps of Engineers, and private property owners to extinguish existing unpatented mining claims, acquire patented mining claims, and obtain waivers on grazing permits.

- Coordinating with the DOE's Office of Chief Counsel, private land owners, and corporations to prepare and secure remedial action agreements to conduct remedial action.

- Drafting correspondence to private property owners, state and federal agencies, and local authorities.

- Coordinating with intergovernmental agencies to complete the requirements for the transfer of title for disposal sites from the states to the federal government.

- Ensuring that all practices relating to the acquisition and management of real property conform with DOE Order 4300.1C, Real Property Management, and applicable regulations.

2.4.3 Vicinity property support

The vicinity property (VP) staff provides management and administrative support to the DOE's VP manager for all VP activities, including updating project critical issues, providing data for property owner and DOE headquarters requests, and drafting required correspondence. As the TAC focal point for all VP-related tasks, the VP staff performs VP planning, scheduling, and statusing for all 24 UMTRA Project sites. Other responsibilities of the VP staff include:

- Reviewing all VP-related documents to ensure consistency and to determine if U.S. Environmental Protection Agency (EPA) standards were met, and tracking the progress of these documents to ensure timely completion.

- Coordinating all VP meetings between the DOE and the RAC, and maintaining the resultant action items list.

- Collecting, interpreting, validating, and entering RAC data into the Vicinity Property Data Management System to provide the DOE a central repository of location-specific critical data.

- Serving as the focal point for data needs and requests for those data maintained at other facilities.

- Maintaining and updating the *Vicinity Property Management and Implementation Manual*, which specifies guidelines for all VP tasks, to ensure Project-wide consistency.

2.5 TECHNICAL SERVICES

The Technical Services group comprises six separate functional departments: Characterization and Remedial Design (CARD), Data Management and Assessment (DMA), TAC Regulatory Compliance (REG), Publications Services (PUBS), Safety Advancement Field Effort (SAFE) and, Regulatory Oversight and Compliance Support (ROCS). These six departments are the TAC's primary point of production and management of technical documents such as health and safety plans, site observational work plans (SOWP), long-term surveillance plans (LTSP), baseline risk assessments (BLRA), remedial action plans (RAP), water sampling and analysis plans (WSAP), and environmental assessments (EA). A description of each department's purpose and function is presented in the following sections.

2.5.1 Characterization and Remedial Design Department

Mission

The CARD Department provides technical expertise in engineering (process, civil, and geotechnical), hydrology (ground water modeling and hydrogeology), and health physics in accordance with accepted industry standards, standard operating procedures (SOP), and programmatic guidance documents. The department is the focal point for site characterization and remediation strategies development for the Ground Water Project using the observational approach. The department also develops ground water protection strategies and conceptual designs, develops and implements water sampling and analyses plans, and performs design reviews for the Surface Project. Department personnel conduct special studies of pertinent technical issues and develop technical position papers and support Project-related outside studies at the UMTRA Project Office's request.

Organization

All CARD personnel report directly to the department manager for administrative and technical matters. Staff members might lead individual efforts as either a task leader or senior reviewer. Department personnel are assigned to site teams as part of the TAC's matrix management approach under the day-to-day direction of a site manager.

Responsibilities

- Develop site-specific documents as needed, including RAPs, annual WSAPs for all ground water and surface water monitoring, and SOWPs under the programmatic environmental impact statement (PEIS) NEPA process for the selection of the preferred remedial alternative for ground water restoration.

- Provide engineering review of designs prepared by the RAC for the surface project.

- Provide engineering design for Ground Water Project remedial actions.

- Provide senior and peer technical reviewers for specific documents of the Surface and Ground Water Projects, ensuring the technical accuracy of each document. This includes engineering, geologic, and hydrologic input on all Surface and Ground Water Project documents, such as LTSPs, BLRAs, and EAs.

- Maintain and implement programmatic guidance documents, including the *Technical Approach Document* (TAD), the *Guidance Document for Preparing Water Sampling and Analysis Plans for UMTRA Sites*, and *Final Report of the UMTRA Project Independent Technical Review on Well Drilling and Development*.

- Coordinate technical activities with the Project engineer and the assistant project manager for Technical Services to ensure that programmatic technical issues are addressed including maintenance of appropriate site technical files for the Surface and Ground Water Projects.

- Review and implement SOPs for engineering design, modeling, and field work.

Operational controls

The CARD Department conducts its operations in accordance with accepted industry standards, SOPs, and programmatic guidance documents. The engineering SOPs are found in Sections 8.0, 10.0, 15.0, 16.0, and 17.0 of the *Albuquerque Operations Manual*. The major programmatic guidance documents followed as part of department operations include the *Guidance Document for Preparing Water Sampling and Analysis Plans* (1993), the TAD (1989), the *Technical Approach to Groundwater Restoration* (TAGR) (1993), and the *Quality Assurance Project Plan* (QAPP) (1994), the *UMTRA Project Technical Assistance Contractor Quality Assurance Implementation Plan* (1994), the NRC *Standard Format and Content for Documentation of Remedial Action at Title I Uranium Mill Tailings Sites* (1988), *Guidance for Implementing the UMTRA Project Long-Term Surveillance Program* (1992) and the *Risk Assessment Guidance Document for the UMTRA Project Groundwater Remediation Phase* (1992).

2.5.2 Data Management and Assessment Department

Mission

The DMA Department integrates the disciplines of risk assessment, geochemistry, data management, statistics, and water sampling to generate defensible environmental data, technically sound data interpretations, and interpretative documents, including risk assessments. These activities help in identifying surface and ground water remedies to protect human health and the environment.

Organization

The DMA Department is divided into five groups: risk assessment, geochemistry, water sampling, data management, and statistics. Each group has a leader who reports to the department's technical manager.

Responsibilities

- Research and produce site-specific human health and ecological BLRAs and conduct ecological sampling in conjunction with the REG Department.

- Participate in the preparation of WSAPs in conjunction with the CARD Department.

- Prepare reports covering geochemical interpretation of ore materials, tailings, soil, and water quality and perform geochemical experiments to support UMTRA Project needs, including field experiments to evaluate the potential or feasibility of possible remedies using geochemical manipulation.

- Operate and develop quality assurance (QA) protocols associated with the Software Program for Environmental Analyses and Reporting (SPEAR) water quality data base. This includes the conduct of audits and performance evaluations of subcontract laboratories, including monitoring laboratory performance in the context of the analytical services statement of work. It also includes validating data packages when delivered by subcontract laboratories.

- Review the accuracy of data entry by Information Systems Planning and Support (ISPS) Department staff through direct supervision of the process and evaluation of a computer-generated suspected anomalies report.

- Manage requests for charges to SPEAR data base programs and work directly with ISPS programmers to help prioritize programming tasks and monitor programming progress.

- Plan the water sampling schedule for 6 to 12 months in the future, preparing work orders prior to sampling and procuring water samples from the field in accordance with Project SOPs. This includes completing field documentation, including chain of custody, for field sampling activities.

- Evaluate the statistical methods programmed into SPEAR, recommending changes, additions, and upgrades.

- Determine ranges of input parameters for BLRAs and perform Monte Carlo simulations for the probabilistic portions of the risk assessment.

Operational controls

The DMA Department conducts its operations in accordance with accepted industry standards, SOPs, and programmatic guidance documents. The SOPs that guide the DMA Department activities are included in the *Albuquerque Operations Manual*, Section 16.0. The major programmatic guidance documents followed as part of department operations include the *Risk Assessment Guidance for Superfund* (1989), the *Guidance Document for Preparing Water Sampling and Analysis Plans for UMTRA Sites* (1993), *EPA Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846* (1986 and subsequent revisions), *EPA Laboratory Data Validation Functional Guidelines for Evaluating Inorganics Analyses* (1988), and *DOE HAZWRAP QA and QC guidance* (1987 and 1990).

2.5.3 Regulatory Compliance Department

Mission

The TAC REG Department ensures that the UMTRA Project complies with applicable DOE and other federal, state, and local environmental, safety, and health regulations and guidance, for the planning of site characterization activities through the implementation of remedial action and subsequent licensing phases. This is accomplished through research, field activities, analyses, and document preparation to support and verify compliance.

Organization

The Regulatory Compliance Department is organized into the following areas: regulatory compliance; permitting, access, and licensing support; surveillance and auditing; and health and safety.

Responsibilities

- Regulatory compliance: Conduct research, surveys, and analyses for preparation of NEPA documentation during Project planning; evaluate the applicability to the UMTRA Project of environmental laws and regulations other than NEPA; plan and integrate permit and access activities for timely implementation of UMTRA Project site activities; develop regulatory compliance procedures; coordinate the appropriate implementation of environmental compliance issues so that DOE policy and guidance are applied promptly and consistently on UMTRA Project activities and in the work place.

- Permitting, access, and licensing support: Assist in completion of permit applications for site characterization; provide technical staff support to site licensing and long-term surveillance and maintenance planning.

- Surveillance and auditing: Assist the DOE in conducting ES&H internal appraisals of the RAC by performing health and safety, radiological, and environmental surveillances and audits at UMTRA Project sites during the conduct of remedial action; prepare surveillance and audit reports identifying areas of noncompliance with regulations and make recommendations for improvement as appropriate; review corrective action plans and make recommendations to DOE; determine findings trends; track corrective action status.

- Health and safety: Develop and maintain TAC health and safety program; develop and perform health and safety training, including 40-hour Occupational Safety and Health Act (OSHA) training, 8-hour refresher training, office ergonomics, and safety training. Develop, maintain, and coordinate the Occurrence Reporting and Processing System (ORPS) for the DOE and TAC.

Operational controls

The TAC REG Department conducts its operations in accordance with environmental and occupational health and safety Congressional acts and their implementing regulations, DOE orders, accepted industry standards, SOPs, and programmatic guidance documents.

Congressional acts and their implementing regulations that guide the activities of the department include, but are not limited to, the *Uranium Mill Tailings Radiation Control Act* (UMTRCA), the *Atomic Energy Act (AEA)*, NEPA, the OSHA, and the *Hazardous Materials Transportation Act (HMTA)*.

DOE orders followed or implemented by the department include: 5400.1, General Environmental Protection Program (11/9/88); 5400.2A, Environmental Compliance Issue Coordination (1/7/93); 5440.1E, National Environmental Policy Act Compliance Program (11/10/92); 5000.3B, Occurrence Reporting and Processing of Operations Information (1/19/93); 5400.5, Radiation Protection of the Public and the Environment (1/7/93); 5480.9, Construction Project Safety and Health Management (4/13/94); 5480.10A, Contractor Industrial Hygiene Program (5/10/94); and 5480.11, Radiation Protection for Workers (6/17/92).

The SOPs that are used, maintained, and updated by the REG activities are found in Sections 6.0, 7.0, 10.0, and 11.0 of the *Albuquerque Operations Manual*.

Major guidance documents used include the *Recommendations for the Preparation of Environmental Assessments and Environmental Impact Statements*, *Guidance for Implementing the UMTRA Project Long-term Surveillance Program*, and *Secretarial Policy on the National Environmental Policy Act*.

2.5.4 Publications Services Department

Mission

The PUBS Department produces and distributes all TAC documents and presentation materials for the UMTRA Project. It is the mission of the department to produce high-quality technical documents and presentation materials in the most cost-effective manner possible. The PUBS Department includes the UMTRA Project Document Control Center (UPDCC) which is responsible for capturing, classifying, storing, safeguarding, and retrieving all documents produced or used on the UMTRA Project; interfacing with other government entities to provide intergovernment availability of scientific and technical information produced by the UMTRA Project; and inventorying, scheduling, and retiring all records generated in the course of UMTRA Project activities.

Organization

The PUBS Department comprises five functional groups: technical editing, word processing, graphics/mapping, production, and the UPDCC.

Responsibilities

- The technical editing staff coordinates the department's processing of UMTRA Project documents from rough draft to camera-ready copy. The staff coordinates document preparation and production activities with the authors, document coordinators, word processing (in-house and vendors), graphics/mapping, and production to ensure that the publication process is completed promptly and the product is of the highest quality possible. They also ensure that each document meets the DOE's standards and requirements for format, style, and quality.

- Word processing staff, under the direction of the assigned technical editor, performs end-to-end text processing, creates backup disks of all required versions of document files, and labels and stores those disk files in locked file cabinets to ensure their protection against destruction or loss of data.

- The graphics/mapping staff produces illustrations, drawings, some photographs, covers, spines, and maps for inclusion in UMTRA Project technical documents. They prepare materials, including transparencies, slides, and posters, for UMTRA Project presentations. Graphics/mapping personnel coordinate with the authors and document coordinators to establish the purpose of each graphic representation and decide the best medium for each illustration/map. The graphics/mapping lead also coordinates vendor production when needed for oversized plates, some color graphics, and the like. Files of computer-generated graphics and original hand-drawn illustrations are maintained by the graphics staff.

- Under the direction of the assigned technical editor, the production staff uses the camera-ready originals to reproduce, assemble, and bind the required number of copies for distribution to the DOE. They check the final appearance of the document (e.g., copies are clean, properly oriented, and properly assembled).

- The UPDCC controls UMTRA DOE Project Office and TAC technical reports, correspondence, videos, field and laboratory data, VP files, aerial photographs, and design documents. Although the center is managed by the TAC, it is a direct support organization to the DOE. The activities of the center are also under the direction of the DOE records management officer. The UPDCC also acquires and maintains reference materials in support of UMTRA Project research, including monographs, periodicals, and topographic and other maps. See Section 4.5 for a detailed discussion of the document control function on the Project.

Operational controls

The PUBS Department conducts its operations in accordance with accepted industry standards, regulations and orders, SOPs, and programmatic guidance documents, as follows:

- Document production: DOE Orders 1430.2A, Scientific and Technical Information; 5700.6C, Quality Assurance; UMTRA-DOE/AL-150127.000, Procedures for Preparation, Printing, and Distribution of UMTRA Project National Environmental Policy Act Documents; and DOE/AL-1325.1A, DOE Albuquerque Operations Office (AL) Correspondence Manual and General Information.

- UPDCC: DOE Order 1324.2A, Records Disposition; DOE Order 1324.3, Files Management; DOE Order 1324.4A, Micrographics Management; DOE Order 1324.5A, Records Management Program; DOE Supplemental Directive AL 1324.5A, Records Management Program; DOE Order 1324.6, Automated Office Electronic Recordkeeping; DOE Order 1324.6A, Electronics Records Management Program; DOE Order 1324.8, Rights and Interests Records Protection Program; DOE Notice 1324.13, Disposition of Personal Papers and Official Records; DOE Orders 1330.1D, Computer Software Management; 1430.1C, Management of Scientific and Technical Information; 1430.4A, Library Services; and DOE Order 1700.1, Freedom of Information Program for the UPDCC.

- Regulations include Title 36 Code of Federal Regulations (CFR), Chapter 12, National Archives and Records Administration, and Title 41, CFR, Subchapter B, Archives and Records for the UPDCC.

- The SOPs that are used, maintained, and updated by the PUBS Department include 6.2.8, Preparation of Citations Used in UMTRA Project Reports; 8.1.2, Project Document Preparation; 6.1, UMTRA Project Document Control System Manual; 6.2.3, Transfer/Delivery of Project Documents to PDCC; 6.2.4, Correspondence Control; 6.2.5, Location, Access, and Borrowing Documents from PDCC, and 6.2.6, Procurement of Reference Materials, of the Albuquerque Operations Manual.

- The major guidance documents used by the department are the American National Standards Institute (ANSI) Standard Z39.23-1190, Technical Report Number Format and Creation; DOE/AL Contract No. DE-AC04-91AL62350, UMTRA Technical and Management Support Contract; ANSI/NQA-1, Quality Assurance Program Requirements for Nuclear Facilities; the Desktop Guide to Publications; DOE/AL/62350-12, Style and Format Guidelines for UMTRA Project Documents; *The Gregg Reference Manual*; *The Chicago Manual of Style*; *The Government Printing Office Style Manual*; and *Webster's Collegiate Dictionary, Tenth Edition*.

2.5.5 Safety Advancement Field Effort Department

Mission

The SAFE Department enhances the UMTRA Project's overall safety performance by providing the DOE UMTRA Project Office a continuous oversight advisory presence at UMTRA Project sites undergoing surface remediation. SAFE personnel provide ES&H evaluations of UMTRA Project site-specific conditions and immediately discuss and resolve any situations or observations regarding applicable ES&H regulations, standards, or DOE orders, in order to ensure the health and safety of Project site personnel and the public and protection of the environment. SAFE staff perform a health and safety assistance function that is separate and distinct from the formal audit/appraisal function performed by REG staff as discussed in Section 2.5.3. SAFE-generated issues are addressed immediately on-site with minimal formal documentation, in contrast to formal audits that result in written reports that require formal responses.

Organization

The SAFE Department is an ES&H oversight advisory organization provided by the TAC and DOE to function as an auxiliary to the DOE, independent of other organizations, to ensure that ES&H standards and regulations and DOE requirements for UMTRA Project sites are not overridden by operational concerns. Administratively, the TAC assistant project manager for Technical Services supervises SAFE personnel.

Responsibilities

- Learn all UMTRA Project site-specific procedures in order to have a good understanding of site operations.

- Periodically visit each UMTRA Project site undergoing remedial activities and survey site operations and activities to identify possible hazardous conditions. The goal is to spend approximately 65 percent of available time in the field, rotating from site to site to ensure maximum coverage, communicating ES&H situations and observations and good ES&H practices to RAC personnel at the various sites, and providing a broad perspective in ES&H evaluation.

- At the request of the UMTRA Project Office and RAC management, provide topical ES&H training for Project site personnel.

- Make regular (daily or weekly, as appropriate) verbal summary reports of field activities and observations to the UMTRA Project Office and RAC management.

- Prepare a written monthly summary report for the UMTRA Project Office and RAC management outlining remarks made at the sites visited and compile these remarks at the end of each construction season into an annual summary report.

- Help determine whether an imminent danger situation exists at Project sites (as defined in DOE Order 5480.1B, Environment, Safety, and Health Program for Department of Energy Operations) and notify the RAC management so that it can take immediate action to curtail or suspend the operation and mitigate the danger. Curtailing or suspending operations without obtaining RAC consent is acceptable if any delay could cause death or serious harm to Project site workers or the public.

- Participate with the UMTRA Project ES&H Committee in the development of programs, procedures, standards, or regulations that may be necessary to ensure the health and safety of Project workers and the general public and the protection of the environment.

Operational controls

The SAFE Department conducts its operations in accordance with accepted industry standards and programmatic guidance documents. The programmatic guidance document that governs SAFE activities is DOE/AL/62350-5, Rev. 1, *Uranium Mill Tailings Remedial Action Project Safety Advancement Field Effort (SAFE) Program*.

SAFE personnel attempt to maximize their time in the field to provide the desired oversight and advisory function. They update and distribute a site visitation schedule about every 6 weeks to provide advance notice to Project staff regarding their current work location. Formal communication is kept to a minimum, since the objective of the SAFE is promoting safety on the spot, not generating a paper trail. SAFE personnel communicate and interact routinely with RAC site management and safety personnel. Any observations and recommendations they may have are discussed with appropriate personnel and documented, with the assistance of RAC site personnel, in a SAFE data base. These remarks will help the DOE UMTRA Project Office trend safety and health issues on the Project. The advice and recommendations provided to RAC staff and management are understood to be non-binding. The RAC management has authority to accept or reject the recommendations as presented by SAFE staff and direct its subcontractors as it sees fit.

SAFE staff take any ES&H situations that cannot be resolved at the site to the Albuquerque RAC ES&H Manager. If a resolution cannot be reached at the Albuquerque RAC ES&H level, the situation will be referred to the appropriate DOE UMTRA Project site manager.

2.5.6 Regulatory Oversight and Compliance Support

Mission

The ROCS Department provides the DOE with dedicated technical resources to directly support the UMTRA Project Office in administering and coordinating programmatic ES&H activities. This support also extends to aiding Project prime contractors (TAC, RAC, RUST Geotech) with their ES&H programs. The department is staffed with experienced ES&H specialists to ensure adequate coverage of the Project's ES&H needs.

Organization

While the Technical Services assistant project manager provides administrative supervision of the ROCS Department, the ROCS staff directly supports the UMTRA DOE ES&H Manager. The ROCS Department staff is also available to assist other DOE Project Office staff with ES&H matters through coordination with the DOE ES&H Manager.

Responsibilities

- Track and review ES&H regulations and DOE orders.
- Develop and implement programmatic ES&H planning, guidance and report documents such as the *Environmental Protection Implementation Plan* (EPIP), the *Ground Water Protection Management Program Plan*, and the *Annual Site Environmental Report* (ASER).
- Maintain the UMTRA Project ES&H regulatory operating envelope data base, including preparing site-specific requirements identification documents and system identification reports, and perform applicability analyses and compliance assessments for regulatory criteria that affect the Project.
- Perform internal programmatic ES&H appraisals and prepare for and respond to outside ES&H audits, surveillances, and assessments.
- Evaluate contractor responses to ES&H inquiries and, if necessary, make recommendations for further action.
- Prepare for ES&H Committee meetings, coordinating and tracking committee actions.

Operational controls

The ROCS Department conducts its operations in accordance with DOE standards and programmatic guidance documents. The following documents govern ROCS activities:

- DOE orders (primarily 5400 and 5480 series).
- UMTRA ES&H Regulatory Implementation Plan.
- UMTRA ES&H Plan.
- DOE ES&H Configuration Guide.
- DOE Standards/Requirements Implementation Assessment Instruction.
- DOE Implementation Plan in response to Defense Nuclear Facilities Safety Board Recommendation 90-2.
- ROCS "desktop" instructions.

2.6 MANAGEMENT SERVICES

The Management Services group operates at two distinct levels. The Project Management Control System (PMCS) Department provides support to the TAC organization only; the Integrated Project Management System (IPMS) Department provides support to the DOE customer directly at the Project Office level and the ISPS Department provides support to both the TAC and the DOE Project Office organization.

In general, the Management Services group provides planning, budgeting, performance reporting, and information systems support for the UMTRA Project at the levels described above. The primary level covers planning and executing work that TAC is assigned in the annual task plans. Additionally, support is provided directly to the customer at the Project Office level. Project controls, computer training, planning facilitation, and coordination are also provided to individual TAC staff members and to interfacing teaming partners and customer organizations as required to facilitate TAC and Project operations.

2.6.1 Project Management Control Systems Department

Mission

The PMCS mission is to provide TAC Project control support for the UMTRA Project using Project control software, hardware, procedures, and trained cost schedulers. The PMCS department uses a comprehensive earned-value-based system to fulfill TAC contractual requirements for monthly reporting on the UMTRA Project.

Organization

The PMCS organization exists as a support organization within the Management Services group. The PMCS organization is staffed with professional cost/schedule engineers (CSE) and cost analysts and is organized into three major

functional groups: performance analysis and work measurement, federal budgeting and cost estimating, and TAC master scheduling. Individual CSEs are responsible for site-specific and technical and management support (T&MS) cost, schedule, baseline maintenance, and change control.

Responsibilities

The PMCS organization is responsible for operation, maintenance, and enhancements to a comprehensive earned-value-based system that includes detailed site-specific and level-of-effort (LOE) schedules, activities, logic ties (CPM), budget estimates, actuals, accruals, earned value, cost and schedule variances, and change control logs. Other responsibilities include support for federal budget reviews and audits, and maintenance or revisions to the TAC Management Plan.

The TAC PMCS Department gathers and publishes data in accordance with cost/schedule control system criteria (CSCSC) and in conjunction with applicable DOE orders and notices. The PMCS Department provides TAC management and the DOE Project Office with timely and auditable cost, schedule, and technical information to facilitate management decisions regarding program direction. Other PMCS responsibilities are listed below:

- The CSEs serve as the control account manager's and/or site and technical manager's liaison between the Project control system software, DOE, and UMTRA TAC Project guidance criteria and policies governing project controls. CSEs are assigned to support several site/control account managers and work as team members to monitor cost, schedule, and technical progress and reporting.

- Integrate TAC contract SOW, target costs, and schedule into the performance measurement baseline.

- Provide objective assessment and measurement, including earned-value calculations (work accomplished against the baseline plan).

- Perform variance analysis of significant deviations from planned cost, schedule, and technical baseline.

- Prepare cost reports, including estimates to completion (ETC) and TAC total Project cost (TPC) estimates to support specific contract reporting requirements, federal budgeting, validations, DOE headquarters reviews, and audits.

- Prepare schedule reports, including monthly issuance of the Project master schedule, site-specific detailed CPM schedules, and various levels of milestone/activity reports.

- Provide traceability from the lowest work breakdown structure (WBS) element to the highest, including "unique" summaries to support the federal budget process, progress tracking system (PTS), and activity data sheets (ADS) funds tracking (Figure 2.2). The CSEs serve as the interface between their respective areas of responsibilities in supporting the control account managers and the IPMS function.

- Prepare detailed task plans on an annual basis. Each TAC task plan contains a detailed narrative description, cost plan, labor plan, and listed deliverables with due dates.

- The CSEs serve as the interface with accounting, PMCS, and the site/control account managers in assuring actual costs and accruals reflect accurate cost criteria (see Section 2.9.3).

Operational controls

The PMCS Department conducts its operations in accordance with accepted industry standards, regulations and orders, SOPs, and programmatic guidance documents, as follows:

- DOE Orders 4700.1, Program Management System; N 4700.5, Project Control System Guidelines and Implementation Reference manual; DOE/MA-0195, Summary Description; DOE/MA-0203, Implementation Guide; DOE/MA-01195, Summary Description; DOE/MA-0203, Implementation Guide; DOE/MA-0040, Work Breakdown Structure Guide; DOE/MA-0221, Data Analysis Guide; DOE/MA-0047, Systems Review/Surveillance Guide; and 1332.1A, Uniform Reporting System.

- The SOPs that are used, maintained, and updated by the PMCS Department include 13.5.1, TAC/PMCS-1 Contract Work Breakdown Structure Maintenance; 13.5.2, TAC/PMCS-2 Development of Cost Account/Work Packages and Work Authority; 13.5.3., TAC/PMCS-3 Out-Year Cost Amount Planning; 13.5.4, TAC/PMCS-4 Data Accumulation; 13.5.5, TAC/PMCS-5 Variance Analysis and Corrective Action Planning; 13.5.6, TAC/PMCS-6 Estimate at Completion; 13.5.7, TAC/PMCS-7 Performance Reporting; 13.5.8, TAC/PMCS-8 Schedule Control; 13.5.9, TAC/PMCS-9 Budget Change Control; 13.5.10, TAC/PMCS-10 Overhead Control; 13.5.11, TAC/PMCS-11 Cost Accruals for Subcontracts.

- The UMTRA Project TAC *Project Management Control System Description* serves as the major guidance document used by the department.

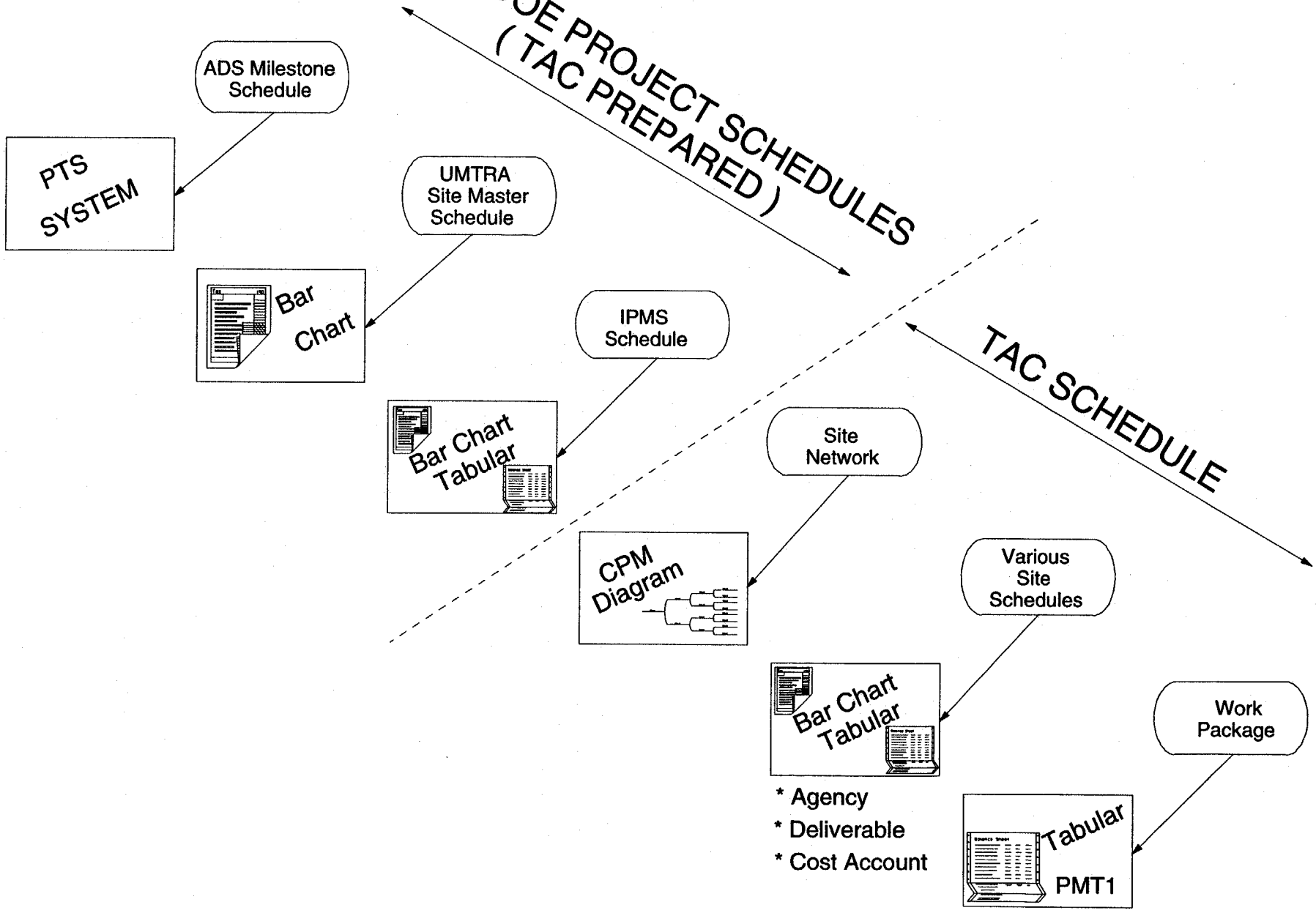

FIGURE 2.2
UMTRA SCHEDULING HIERARCHY SITE-RELATED WORK

2.6.2 Integrated Project Management Systems Department

Mission

The IPMS Department provides support to the DOE customer directly at the Project Office level. The IPMS Department mission involves a dedicated staff to support the annual federal budget preparation process, overall Project performance measurement (TAC, RAC, RUST GeoTech, and all other contractors), preparation of major system acquisition (MSA) and major project documentation, preparation of state billings and reimbursements, coordination of total project baseline control, preparation of the Environmental Restoration and Waste Management (ER/WM) five-year plan, and administration of the ER/WM PTS.

Organization

The IPMS organization exists as a dedicated support organization within the Management Services group. The IPMS Department is staffed with various disciplines, including cost analysts, budget analysts, master schedulers, and administrative support employees. Under DOE Project Office direction, the IPMS organization provides guidance to contractors, coordinates risk assessment meetings and establishes contingency requirements, supports DOE bottom-up reviews, ICE reviews and major project cost estimate (MPCE) audits, and performs various other "what-if" planning scenarios.

Responsibilities

The IPMS group is responsible for interfacing with the DOE UMTRA Project Office and all major Project contractors to integrate and coordinate several aspects of Project management control. IPMS Project level support includes responsibility for the following major functions:

- Provide guidance to all UMTRA Project contractors, risk assessment meeting coordination, bottom-up review support, ICE review support, budget validation support, various possible planning scenarios, development of the field budget, maintenance of budget data through a budget management system for both Surface and Ground Water Projects, Project-level estimating support, and administration of the UMTRA Project Cost Reduction/ Productivity Improvement Program (CR/PIP).

- Maintain Project performance measurement system for both surface and ground water that includes the areas of baseline establishment, change control, IPMS level schedule, PTS, quarterly Project Manager's progress report (PMPR), monthly reporting, baseline change proposal, Energy System Acquisition Advisory Board/Program Secretarial Officer (ESAAB/PSO) briefings, and data maintenance.

- Prepare documents as required by DOE Order 4700.1, Project Management Systems, and DOE Notice 4700.5, Project Control System Guidelines and Implementation Reference Manual, for both Surface and Ground Water Projects such as the Project Plan, Project Management Plan, IPMS Description, Project Schedule and Cost Estimate Report, and other documentation as may be required to support the DOE Project Office.

Specifically, the IPMS group interfaces with the DOE Project Office and all major Project contractors to integrate and coordinate total Project management control in the following areas:

- Preparation of all data and documents in support of federal budget development.
- Data collection and maintenance of a Project-level performance measurement system.
- Status and coordination of a Project-level master schedule.
- Preparation of monthly DOE environmental management PTS reports, which include the quarterly PMPR.
- Support for management reviews, Change Control Board (CCB), and critical issues meetings.
- Preparation of documentation as required by DOE orders in the 4700 series.
- Support for the cost reduction program, billings and reimbursements to the various states and Indian tribes, and independent construction cost estimating.

Operational controls

The IPMS Department conducts its operations in accordance with accepted industry standards, regulations and orders, SOPs, and programmatic guidance documents, as follows:

- DOE Orders 4700.1, Program Management System; N4700.5, Project Control System Guidelines and Implementation Reference Manual; DOE/MA-0195, Summary Description; DOE/MA-0203, Implementation Guide; DOE/MA-0040, Work Breakdown Structure Guide; DOE/MA-0221, Data Analysis Guide; DOE/MA-0047, Systems Review/Surveillance Guide; and 1332.1A, Uniform Reporting System.
- The SOPs that are used, maintained, and updated by the IPMS Department include 13.2.1, Project Progress Report Preparation; 13.2.2, Project Management Plan Preparation; 13.2.3, Project Plan Update; 13.2.7, Project Manager's Progress Report Preparation; 13.2.8, Project Schedule and Cost

Estimate Report Preparation; 13.2.9, Site Progress Report Preparation; 13.2.11, Change Control Board Support; 13.3.1, IPMS Trend Report Maintenance; 13.3.3, IPMS Schedule Report Generation; 13.3.4, IPMS Schedule Update; 13.3.11, Master Schedule Maintenance; 13.3.12, IPMS Schedule/Logic Generation; 13.4.2, Remedial Action Estimate Review; 13.4.4, Cost Estimating; and 13.4.5, Project Risk Assessment/Contingency Budgeting.

- Another major guidance document used for reporting progress is the PTS. Specific guidance is issued by DOE headquarters via the DOE Environmental Management Office of Waste Management *Implementation Guide*.

2.6.3 Information Systems Planning and Support Department

Mission

The mission of the ISPS Department is to provide a reliable, responsive, effective, easy to use, and consistent computing environment along with a wide range of services to the UMTRA Project. This mission allows users to focus on their primary responsibilities, and to increase staff productivity and improve product quality. ISPS services include information systems resource planning, custom application development, end-user support/help desk, data entry and management, end-user training, computer security, and technical support for all office computer systems, including an office-wide LAN.

Organization

The ISPS Department exists as a LOE support organization in the Management Services Group on the UMTRA Project. The department provides support personnel in three major areas; administrative, technical, and software development. The ISPS Department consists of computer/network support technicians, application programmers, data entry personnel, and administrative/management staff to support all areas of the UMTRA Project including the TAC, UMTRA DOE Project Office, and other remote UMTRA Project and DOE-related operations. The ISPS Department also provides dedicated information systems support staff to three specific Project departments: DMA, IPMS, and PMCS.

Responsibilities

- Technical planning and support: Technical support includes hardware maintenance, hardware and software upgrades, and purchasing and installation of new data processing equipment and software. An ongoing responsibility of the technical support staff includes ensuring the functionality, availability, and reliability of the business critical interconnecting software on the LAN, such as electronic mail, used throughout the TAC and DOE offices.

- End user support: Department staff meetings are held weekly to discuss the status and progress of action items, development efforts, and end-user support issues. ISPS Department development staff members meet regularly with various end-user project teams to discuss project development planning and project status.

- The ISPS Department staff meets weekly to brainstorm and develop ideas on ways to improve the quality and productivity of information systems throughout the UMTRA Project. This meeting is a proactive effort to support the ISPS Department mission of providing a reliable, responsive, effective, easy-to-use, and consistent computing environment.

  ISPS Department staff regularly conduct informal meetings with end-users to assist with processing requirements, answer questions, and solve technical problems. Electronic mail, an on-line help/request system, phones, and memos are employed in regular communications with end-users.

- Network planning and support: The UMTRA Project LAN connects all microcomputers and printers together to provide a platform for sharing data, centralized data backups, shared printers/plotters, shared modems, and other computer resources. The Novell netware/ethernet environment provides a reliable and secure computing platform. The ISPS Department technical staff monitors LAN utilization and recommends system upgrades based on file server usage, disk drive capacity, and LAN speed and performance. The ISPS Department staff establishes and maintains network user identifications and provides orientation training for new users.

- Applications programming and development: Applications development encompasses systems analysis, applications programming, system documentation, end-user documentation, training and problem solving for many disciplines on the Project. Major support efforts include the following systems:

  - SPEAR (used by the DMA Department)—The technical information data base for all site-specific geotechnical, geohydrological, radiological, and engineering data collected and analyzed on the Project.

  - COBRA and Open Plan (PMCS Department)—PMCS Department software and data base management support for managing the Project's cost and scheduling information base.

  - IPMS Department—IPMS Department programmatic information management assimilation, analysis, and reporting.

- Data entry and management support: Site technical data is entered, verified, and maintained in the SPEAR system by ISPS Department data entry personnel. Some data are entered manually and some are submitted

electronically by the subcontracting laboratories. A tracking log is maintained of all data loaded into the SPEAR system.

- Computer security: The ISPS Department is responsible for computer security training and implementation of DOE orders relating to computer security on the UMTRA Project for the TAC. This includes appointment of a divisional computer protection program manager (DCPPM) and an alternate DCPPM. Annual computer security training, required for all UMTRA Project staff members, is provided by the ISPS Department. Computer security audits are performed on each UMTRA Project computer every 3 years. A LAN security plan and security plans for each microcomputer on the Project are completed and submitted to the DOE/AL computer security site manager (CSSM). The ISPS Department determines and controls access rights to all software and data on the network.

- End-user training: The ISPS Department provides in-house training on the network, microcomputer workstations, computer security, end-user software tools, and specialized application software. In some cases, the ISPS Department simply coordinates scheduling for end-users with outside training facilities. The Training Records Administration and Information Network (TRAIN) data base is maintained to track all training classes that end-users attend.

- Administrative planning and support: The ISPS Department is responsible for writing and implementing personal computer (PC) upgrade and rotation plans for the TAC, administering computer supplies, controlling data processing equipment inventory, and preparing and administering a budget. The software library, diskettes, and documentation are maintained by ISPS Department staff as well. In addition, the ISPS Department is responsible for writing and maintaining certain UMTRA Project SOPs. Software evaluations, recommendations, justifications, and approvals are performed by the ISPS Department. A travel laptop computer checkout procedure is monitored and maintained by the ISPS Department for UMTRA Project staff who travel and require a computer off-site. The ISPS Department Quality Council representative attends biweekly Quality Council meetings to communicate with and report on ISPS Department-related quality improvement suggestions (QIS).

Operational controls

The ISPS Department conducts its operations in accordance with accepted industry standards, DOE standards and orders, UMTRA Project SOPs and ISPS internal standards as follows:

- DOE Orders 5631.5, Violation of Laws, Losses, and Incidents of Security Concerns; 1330.1C, Computer Software Management; 1360.1A, Acquisition and Management of Computing Resources; 1360.2B,

Unclassified Computer Security Program; 1360.4A, Scientific and Technical Computer Software; 1360.3B, Automated Data Processing Standards; and 0108, Standard for Fire Protection of Computer Equipment.

- The SOPs that are used, maintained, and updated by the ISPS Department include 8.2.2, Coded Data Definitions; 8.2.3, Technical Software Library Organization and Access; 8.2.5, Microcomputer Software and Copyright Control; 8.2.6, Data Entry, Verification, and Archiving in the DART System; 8.2.7, Word Processing Guidelines; and 13.5.13, Local Area Network Files.

- The UMTRA Project, Technical Assistance Contractor, *Project Management Control System Description* is the major guidance document used by the department.

2.7 PUBLIC AFFAIRS

Mission

The mission of the Public Affairs Department is to provide professional communications support to the DOE UMTRA Project Office and its supporting contractors. This includes public affairs planning and counseling, community relations, public participation, media relations, employee information, and communications training.

The Department staff assists the Project Office in keeping the public informed about the Project's status through the release of accurate, timely information as required by DOE Order 1200.1A, Policy and Procedures for Departmental News Media Activities. The staff also plays a key role in helping DOE comply with the UMTRCA. Section 111 of that law requires DOE, NRC, and EPA to actively encourage public participation in implementing the provisions of UMTRCA, including the holding of public meetings in states where processing and disposal sites exist.

Organization

The Public Affairs Department reports directly to the TAC Project Manager. The department provides overall guidance and direction for the UMTRA Project public affairs program. Site-specific support is provided by individual public affairs specialists. Special events and projects are assigned to members of the department on a case-by-case basis.

Responsibilities

The responsibilities of the Public Affairs Department include:

- Reviewing and updating, as required, the UMTRA Project *Public Affairs Plan*.

- Writing and distributing the *Annual Status Report of the Uranium Mill Tailings Remedial Action Program*.
- Writing, producing, and distributing an UMTRA Project annual video report.
- Preparing individual communications plans for major Project events.
- Providing public affairs advice.
- Keeping stakeholders apprised of Project goals and progress through regular mailings of factual information.
- Planning, coordinating, and supporting the public participation and involvement program for the UMTRA Project.
- Assisting DOE site managers and other key Project officials in preparing for and effectively conducting public meetings.
- Reviewing and evaluating the sufficiency of published Project public information materials, recommending revisions to existing materials, and preparing new materials.
- Preparing fact sheets, news releases, information brochures, video tapes, and other products for distribution to both the news media and members of the public.
- Assisting DOE spokespersons in conducting telephone and in-person media interviews.
- Assisting the Project Office in answering media inquiries.
- Keeping DOE and TAC employees informed about the Project and its accomplishments.
- Providing formal communications training to key DOE Project Office, TAC, and RAC personnel.
- Planning and executing public affairs programs designed specifically for site communities on tribal lands and developing information materials, as appropriate, to address the cultural needs of Indian publics.
- Providing timely response to written and telephone requests for Project information.

- Identifying public stakeholder concerns and issues so they can be addressed in Project decisions.

- Preparing speeches and briefings.

Operational controls

The Public Affairs Department conducts its operations in accordance with accepted industry standards, regulations and orders, and programmatic guidance documents, as follows:

- The DOE Orders applicable to the Public Affairs operations are 1220.1A, Congressional and Intergovernmental Affairs; 1230.2, American Indian Tribal Governmental Policy; 1350.1, Audiovisual and Exhibits Management; 1430.1C, Management of Scientific and Technical Information; 1700.1, Freedom of Information Program; 1800.1 and 1800.1A, Privacy Act; 5400.1, General Environmental Protection Program; 5400.1, National Environmental Policy Act Compliance Program; 5500.4A, Public Affairs Policy and Planning Requirements for Emergencies; and 5500.5A, Public Affairs Policy and Planning Requirements for a Fuel Supply Disruption Emergency.

- Other major guidance documents used in conducting Public Affairs Department operations are: Secretary of Energy memorandum, *Guidance on Implementation of the Department's Public Participation; Public Participation Guidance for Environmental Restoration and Waste Management*; and the UMTRCA.

2.8 QUALITY ASSURANCE

Mission

The TAC is committed to providing the DOE with quality products and services. In keeping with this commitment, the TAC management has identified two missions that have been integrated into the Project in an interdisciplinary manner. These missions are 1) QA support to the DOE in the form of audits, Federal Acquisition Regulations (FAR) reviews, etc., and 2) quality improvements of the TAC operations in the form of self-assessments, Quality Council activities, and QISs. The TAC QA Department is responsible for developing and managing a QA program that integrates these missions into planned and controlled Project activities and for assisting in the monitoring and implementation of these activities. The TAC total quality management (TQM) ethic encourages all personnel, both management and staff, to accept the responsibility for the individual and collective quality of work on the Project as well as for implementation and compliance with the stated mission and goals for the Project. The UMTRA Project philosophy focuses on quality through leadership and organizational commitment.

Organization

Operational independence of the QA function is provided by a reporting structure that requires the QA manager to report to the JEG Albuquerque Operations Manager and to a senior JEG executive rather than the TAC Project Manager.

Responsibilities

The QA personnel interface with all levels of management, supervisors, and staff in the implementation, overview, evaluation, and feedback associated with the QA and TQM programs. In developing and managing the QA program, the QA Department has the following responsibilities:

- Maintaining the Assessment and Analysis Documentation and Information Tracking System (AADITS) data base to track audit status and corrective action implementation.
- Developing and maintaining the TAC QA program plan (QAPP). The QAPP describes how the TAC will ensure the quality of all aspects of its operation.
- Establishing and implementing a QA orientation and training program. Technical personnel training consists of an initial orientation followed by periodic updates on areas of interest.
- Reviewing procurement documents to ensure that they contain the applicable quality requirements.
- Reviewing SOPs for activities affecting the quality and defensibility of data and analyses provided to the DOE.
- Reviewing RAPs and remedial action inspection plans, in conjunction with the site managers and technical staff.
- Reviewing nonconformances.
- Participating in the implementation of corrective actions.
- Establishing and implementing the QA audit/surveillance programs for TAC activities in support of the Project Manager.
- Representing Project QA matters, including resolution of quality problems.
- Evaluating quality results and performing trend analyses for TAC and subcontractor performance.
- Reporting to management on the adequacy of the QA program.

- Providing QA-related support to the UMTRA Project Office QA manager by participating in the development of the UMTRA Project Office QAPP and conducting QA audits or surveillance of the RAC for the UMTRA Project Office.

- Developing the final audit report for the Project Office to submit to the NRC as part of the final licensing package for disposal cells.

In developing and managing the TQM program, the QA Department has the following responsibilities:

- Provide administrative and technical support to the Quality Council.

- Prepare lessons learned for TAC activities as directed by the DOE or TAC management.

- Assist senior TAC managers in the development of quality improvement plans. These plans contain the specific goals, actions, and manager plans to continue to improve the service their organization provides the DOE.

- Assist in the formation of quality improvement teams (QIT) by providing process consultation, team building, and meeting management and facilitation.

- Consult with and take guidance from the Quality Council.

- Serve as the TAC liaison with the DOE/AL Office of Quality Management and other external offices on quality issues and communicate information about the organization's quality activities.

- Serve as the source of information on quality matters, such as training opportunities, conferences, resource materials, and status tracking of effectiveness of quality improvements.

- Develop UMTRA-specific TQM training.

Operational controls

The QA Department conducts its operations in accordance with accepted industry standards, regulations and orders, SOPs, and programmatic guidance documents, as follows:

- The primary DOE order applicable to the QA operations is DOE 5700.6C, Quality Assurance.

- The SOPs that are used, maintained, and updated by the QA Department include 8.1.1, Preparation of Standard Operating Procedures; 9.1, Quality Assurance Program Plan; 9.2.1, Qualification of Audit Personnel; 9.2.2,

Quality Audits; 9.2.3, Training; 9.2.4, In-Process Construction Surveillances; 9.2.5, Controlled Documents; 9.2.10, Remedial Action Close-Out Inspection; 9.2.11, Inspection of Subcontractor's Operations; and 17.3.2, Technical Approach Document Checklist for UMTRA Document Review.

- The primary guidance document used in conducting operations is 10 CFR §830.120, Nuclear Safety Management.

2.9 ADMINISTRATIVE SUPPORT

The administrative support departments discussed in this section report directly to the JEG Albuquerque Operations manager who reports, in turn, directly to JEG corporate headquarters in Pasadena, California. Administrative support is provided to the UMTRA Project utilizing the matrix management approach. None of the administrative support staff members are dedicated 100 percent to the UMTRA Project. However, using the matrix management approach allows greater flexibility to the UMTRA Project when scarcity of resources or certain skill codes occur during short work requirements or peak loading keeping the costs of subcontract labor down.

Use of other members of the TAC team is not practicable in the administrative sections. This effort is supported entirely by JEG.

2.9.1 Contracts and Procurement Department

Mission

The mission of the Contracts Department is to ensure the TAC has all the supplies and specialized support necessary to perform the contract. The Contracts Department operates through a DOE-approved purchasing system that fully complies with the requirements of the FAR as implemented by the DOE acquisition regulations (DAR). The Contracts Department receives requisitions from various members of the TAC technical staff, and makes the necessary purchases through small purchase actions, purchase orders, or subcontracts as appropriate for the size and complexity of the requirement. The Contracts Department ensures that the purchases are appropriate for the contract and the costs incurred are allowable under the guidance in FAR.

Organization

The Contracts organization consists of buyers and contract administrators. The Contracts Department reports directly to JEG corporate headquarters and indirectly to the manager of the JEG Albuquerque Operations office. Support to the TAC is provided through a matrix organization that permits staff to be assigned as necessary to meet the UMTRA Project work load.

Responsibilities

The Contracts Department is responsible for the following major activities:

- Administer the prime UMTRA Project contract.
- Prepare and submit scheduled reports, including a semiannual report of plant and capital equipment, subcontracting report for individual contracts, summary subcontract report, and labor escalation rate report.
- Provide counsel and guidance to Project Manager and staff with regard to contractual matters or cost allowability issues.
- Monitor cost expenditures and provide funding notification to the DOE contracting officer pursuant to the "limitation of cost" clause.
- Purchase all supplies and equipment needed in support of the UMTRA Project.
- Solicit, negotiate, award, monitor, and close out all subcontracts for supplies and services needed in support of the contract. This process includes development of source lists, preparation of requests for proposals and quotations, review of proposals for responsiveness and responsibility, cost and price analysis, preparation of the negotiation memorandum, and preparation of the subcontract document.
- Prepare documentation for contracting officer consent to various classes of subcontracts.
- Process delivery orders under various subcontracts awarded in support of the Project.
- Monitor cost performance of teaming partners' subcontracts through review of charges invoiced.
- Continue award process for new soil and water analysis subcontracts.
- Provide the Accounting Department with subcontract commitment data.
- Process invoices for all subcontracts.
- Assist the Accounting Department with invoice and payment problems.
- Provide purchasing and subcontracting training to TAC staff.

Operational controls

The Contracts Department conducts its operations in accordance with accepted industry standards, regulations, SOPs, and programmatic guidance documents, as follows:

- The SOPs that are used, maintained, and upgraded by the Contracts Department include 2.4, Pre-Negotiation Objectives of Cost Proposals; and 8.1.4, Management and Administration of Subcontracts for Acquisition and Review of Technical Data.

- Other applicable major guidance documents used in conducting Contracts Department operations include both the FAR and the DAR.

2.9.2 Human Resources Department

Mission

The mission of the Human Resources Department is to work closely with UMTRA Project management to ensure adequate TAC staffing, coordinate with health and safety staff members to ensure a safe work environment, and guarantee equal employment opportunity compliance, tracking, and reporting.

The Human Resources Department's mission also includes new JEG employee orientation, benefits coordination, employee savings plan coordination, and employee stock ownership program coordination with JEG corporate representatives in Pasadena.

Organization

The Human Resources organization consists of human resource specialists, recruiters, benefits representatives, and administrative support. The Human Resources Department reports directly to the JEG corporate headquarters, and indirectly to the manager of the JEG Albuquerque Operations office. Support to the TAC is provided through a matrix organization that permits staff to be assigned as necessary to meet the UMTRA Project work load.

Responsibilities

The Human Resources Department is responsible for new JEG employee orientation, benefits coordination, employee savings plan coordination, and employee stock ownership program coordination with JEG corporate representatives in Pasadena.

In addition, the Human Resources Department is responsible for the following:

- Assigning security badges to permanent and temporary employees and to visitors.

- Updating the telephone directory by employee, department, and location.
- Developing emergency evacuation procedures and training.
- Tracking staff by department, company, and discipline.

Operational controls

The Human Resources Department conducts its operations in accordance with accepted industry standards, SOPs, and programmatic guidance documents, as follows:

- The SOPs that are used, maintained, and updated by the Human Resources Department include 2.1, Albuquerque Operations Office Security Badging System; 4.0, UMTRA TAC New Employee Orientation; 4.1, Corporate Administrative Policies; 4.2, Smoking in the Work Place; 4.3, Affirmative Action Plan; 4.4, Reporting of Pregnancies; 4.5; Interviewing Process for TAC Vacancies; and 4.6, TAC Employee Career Planning Process.
- Other applicable major guidance documents used in conducting Human Resource Department activities are JEG minimal accepted procedures (MAP) and the JEG annual affirmative action plan.

2.9.3 Accounting Department

Mission

The mission of the Accounting Department is to provide accounting support to all disciplines of the TAC team by assuring timely payment of purchases and services, accurate maintenance of historical cost records, accurate actuals and accrual cost calculations, and timely preparation and submission of the monthly UMTRA Project invoice to the DOE.

Organization

The Accounting organization consists of accountants, accounting clerks, and administrative support. The Accounting Department reports directly to the JEG corporate headquarters, and indirectly to the manager of the JEG Albuquerque Operations office. Support to the TAC is provided through a matrix organization that permits staff to be assigned as necessary to meet the UMTRA Project work load.

Responsibilities

The Accounting Department is responsible for maintaining all accounting records for the UMTRA Project (Figure 2.3). The Accounting Department is responsible for day-to-day coordination of several key elements:

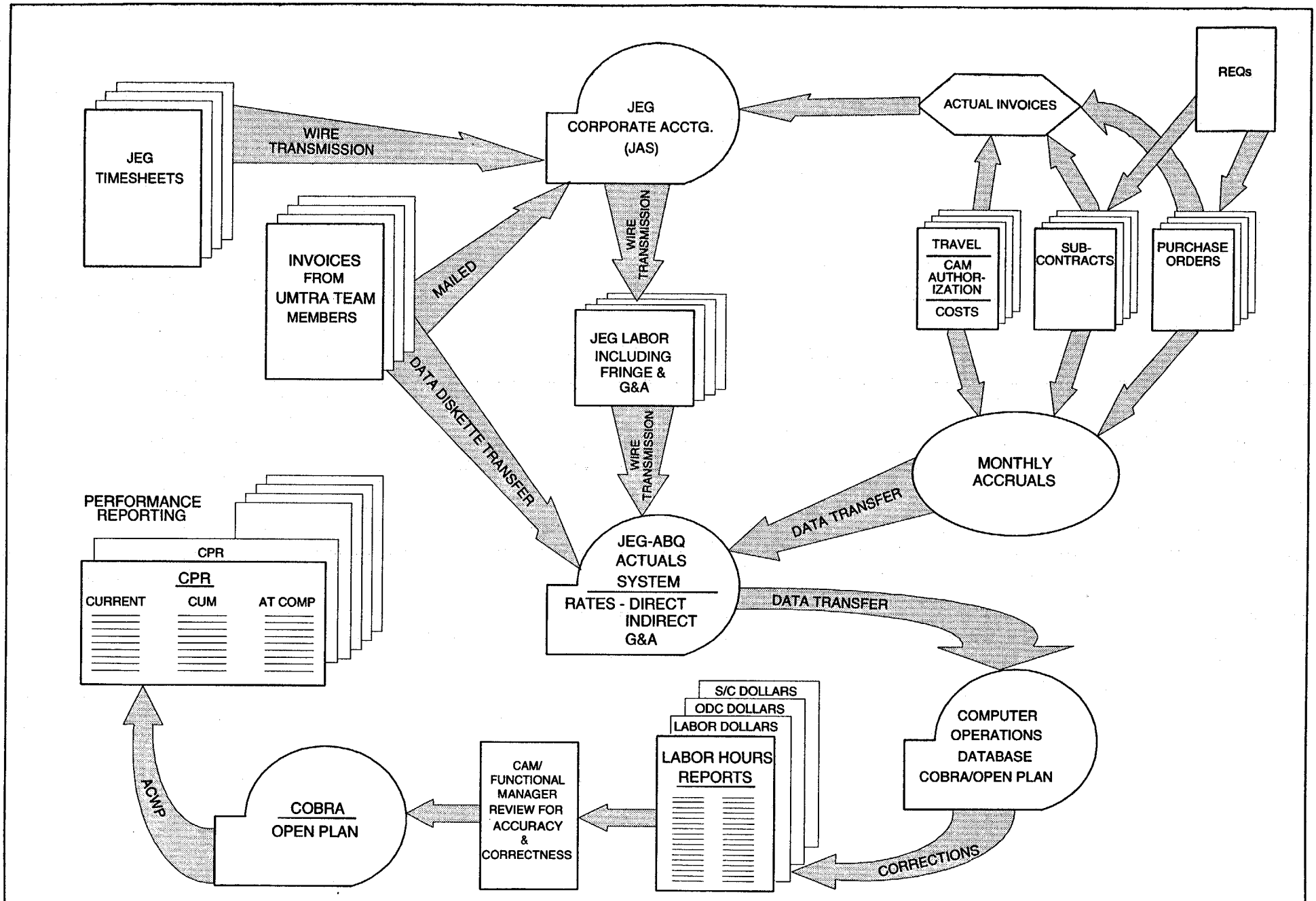

FIGURE 2.3
ACCOUNTING DATA FLOW AND ANALYSIS

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- JEG corporate accounting (Pasadena) to assure timely and accurate processing of labor, subcontract, and other direct cost data through the JEG accounting system.

- UMTRA teaming partners respective account representatives to assure receipt of applicable actual and accrual cost data.

- Project control updates, including weekly actual cost data and monthly accruals data, for incorporation into the PMCS monthly status report.

- DOE Project Office monthly estimated cost incurred and funding level reconciliation by ADS.

- Preparation of monthly UMTRA Project invoices through JEG corporate accounting.

Organizational controls

The Accounting Department conducts its operations in accordance with accepted industry standards, regulations and orders, SOPs, and programmatic guidance documents, as follows:

- DOE Orders 4700.1, Program Management System; N4700.5, Project Control System Guidelines and Implementation Reference Manual; DOE/MA-0221, Data Analysis Guide; and DOE/MA-0047, Systems Review Surveillance Guide.

- The governing SOP is 5.1, Corporate Accounting Procedures.

- The major guidance documents used by the Accounting Department are the FAR, DAR, and rules and regulations promulgated by the Defense Contract Audit Agency (DCAA).

2.9.4 Facilities Department

Mission

The Facilities Department mission is to provide office space, furniture, equipment, and any other tools necessary to perform the UMTRA Project SOW. The mission also includes office security, security scanner maintenance for UMTRA Project office space, and telephone and paging system support.

Organization

The Facilities organization consists of a single point of contact coordinator. The facilities coordinator reports directly to the manager of the JEG Albuquerque Operations Office. Support to the TAC is provided through a matrix function that permits facilities coordination to meet the UMTRA Project work load.

Responsibilities

JEG is responsible for providing facilities management and support to the UMTRA Project. Facilities management responsibilities includes providing work space, office furniture, and telephones to all TAC employees. Facilities management responsibilities also include the following:

- Providing floor directories.
- Furnishing door name tags.
- Printing business cards for all TAC employees.
- Coordinating UMTRA-related office moves.
- Ensuring that UMTRA Project facilities are in adequate working condition.
- Controlling office climate (heating and cooling).
- Ensuring the availability of adequate office equipment (copiers, fax machines, and the like).

Operational controls

The Facilities Department conducts its operations in accordance with accepted industry standards, regulations and orders, SOPs, and programmatic guidance documents, as follows:

- The applicable DOE Order is 1324.5, Records Management Program.
- The SOPs that are used, maintained, and updated by the Facilities Department include 6.2.1, Administrative Control of UMTRA Project Documents, and 6.2.7, Transfer of Projects to Remote Storage Facilities. SOP 6.1. UMTRA Project Document Control Systems Manual, is also followed.
- Other applicable major guidance documents used in conducting facilities operations are 36 CFR parts 1220 - 1238, National Archives and Records Administration.

3.0 MANAGEMENT PLANNING AND CONTROLS

Management planning and controls integrates the process of scheduling tasks and milestones together with the resources required. Progress towards meeting task and milestone schedules is assessed through assigning performance measurement devices to the areas or tasks that are considered of a critical need or to tasks that may impact a site or project critical path if not completed. By the assignment of resources to tasks over the scheduled tasks duration, the federal budget profiles are determined along with funding requirements.

The graded approach prescribed in DOE N4700.5 (provides guidelines for Project Offices and contractors to use a risk-based graded approach to determine degree of risk on segments of the Project and to determine what type and level of project controls to employ at the contractor level to mitigate the risk(s) and report progress) is in use on the Ground Water Project. The Surface Project continues to use the system reviewed during the June 1992 compliance review. The graded approach application on the ground water portion of the Project is described in more detail in the TAC's UMTRA *Project Management Control System Description* (DOE, 1992).

3.1 COST PLANNING AND CONTROL

The TAC plans, budgets, and controls its work to meet the schedule milestones and funding constraints set up by the DOE Project Office. Major milestones and related budgets are traceable from the UMTRA Project master schedule to the TAC control account and work package level schedules. The lowest level of the master schedule resides within the control account as the work package and/or milestone and sums up the schedule hierarchy to the master schedule. Similarly, estimates and budgets are detailed at the work package level within the control account. All planning of schedules and budgets are performed in a manner consistent with the contract WBS, the TAC organization, and authorized funding limits (see the IPMS Description [DOE, 1993], Sections 4.0, Budget Development and 3.3, Schedule Component of the Baseline, and the PMCS Description, Sections III-B and C) (DOE, 1992).

The integration of the scope of work, schedule, and budget is accomplished within the control account at the work package level (The work package is where resource loading occurs and sums up to the control account level and on up each level of the WBS to the total Project WBS level I). This provides the formal means for planning, budgeting, and establishing the basis for performance measurement and variance analysis and reporting status to the TAC and the Project Office.

3.2 TASK PLANNING AND FUNDS MANAGEMENT

The TAC provides task planning and funds management for obtaining, using, and controlling UMTRA Project funds (see IPMS Description [DOE, 1993], Section 3.0, Work Authorization, and Section 7.0, Funds Management.) Upon

receipt of the DOE task assignment, the TAC prepares the annual task plan. The task plans contain detailed TAC plans and schedules, including cost and labor plans, and deliverable plans to perform the work required in each task assignment. The task plans are then submitted to the DOE for approval within 10 calendar days of receiving the task assignments from the DOE. After negotiations between the TAC and the contracting officer, the UMTRA Project Office approves the funding for part or all of the task assignment. Approval to proceed is transmitted to the TAC, which specifies and documents the authorized funding. The TAC Project Manager then allocates the authorized funds among the tasks.

During each task assignment period of performance, remaining funds are reviewed to determine if they are sufficient to perform the authorized work. The TAC accounting section submits a monthly estimated cost incurred report that contains information on billed costs and funding status. If changes to the task plan result in modification to the negotiated task assignment value, the cost plan and task plan is revised based on approved contract changes.

3.3 SCHEDULE PLANNING AND CONTROL

The TAC scheduling system is based on the hierarchy of Project schedules that are traceable, in increasing detail, from the UMTRA Project master schedule to the TAC detailed work package schedules.

The UMTRA Project master schedule (Section 2.6.2) is the highest level in the schedule hierarchy (Figures 3.1 and 3.2). This schedule includes major site activities and is updated monthly to track and report progress at DOE-conducted review meetings.

The contracting officer's representative's (COR) schedule is the TAC top-level schedule and serves as the task assignment schedule baseline. It contains the planned dates for delivery of the other products and services required during the task assignment and in accordance with the annual task plans to support the UMTRA Project schedule. Task plan milestones, deliverables, and required accomplishments are coded in the scheduling system for ease in tracking and reporting. Task plan requirements are also tracked weekly in the TAC Action Item Logging System (TAILS) (Section 4.3.1) to assure proper focus is maintained on DOE requirements. All task plan deliverables are coded in TAILS as either a planned listed deliverables (PLD) item or a planned general deliverable (PGD) item if not listed specifically as a deliverable.

TAC site schedules contain the time-phased plan to produce site-related documents and services. The TAC site schedules are used to integrate, manage, and monitor detailed site activities. Traceability of key site activities is maintained throughout the schedule hierarchy by the appropriate WBS codes and by retaining milestones in lower-level, detailed schedules that support similar milestones in higher-level schedules. Updates are performed via the CSEs and the control account managers (CAM) and status provided at the

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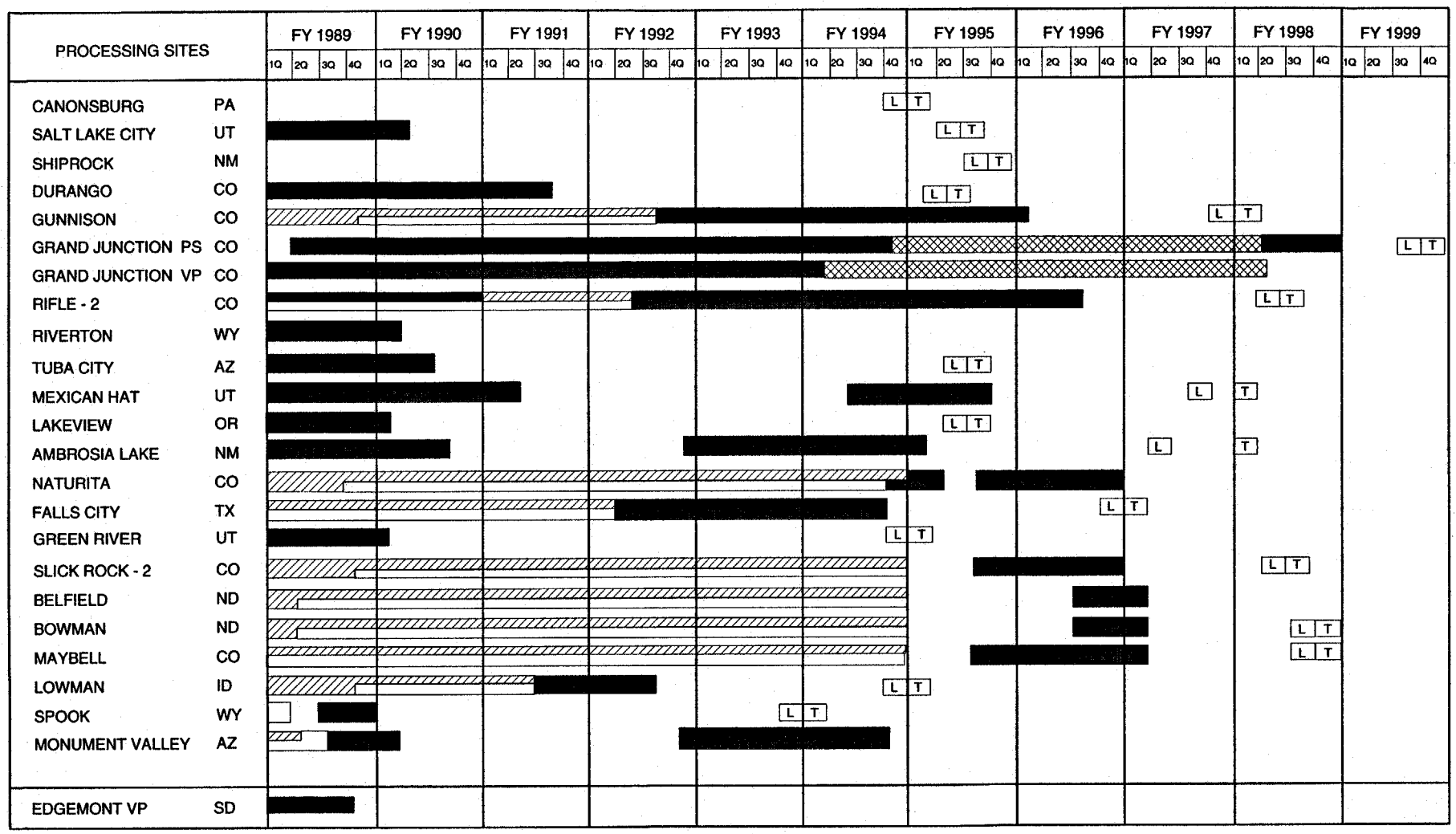

LEGEND

- PLANNING & DESIGN, NEPA
- REMEDIAL ACTION
- ENGINEERING
- GRAND JUNCTION CELL CLOSURE EXTENSION
- L NRC LICENSE
- T TRANSFER TO GJPO LTSP

NOTE: VP REMEDIAL ACTION INCLUDED IN PROCESSING SITES, EXCEPT FOR FOR GRAND JUNCTION, RIFLE, AND FALLS CITY.

FIGURE 3.1
UMTRA SURFACE PROJECT SCHEDULE (CURRENT PLANNING)

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FY96 PROJECT STATUS

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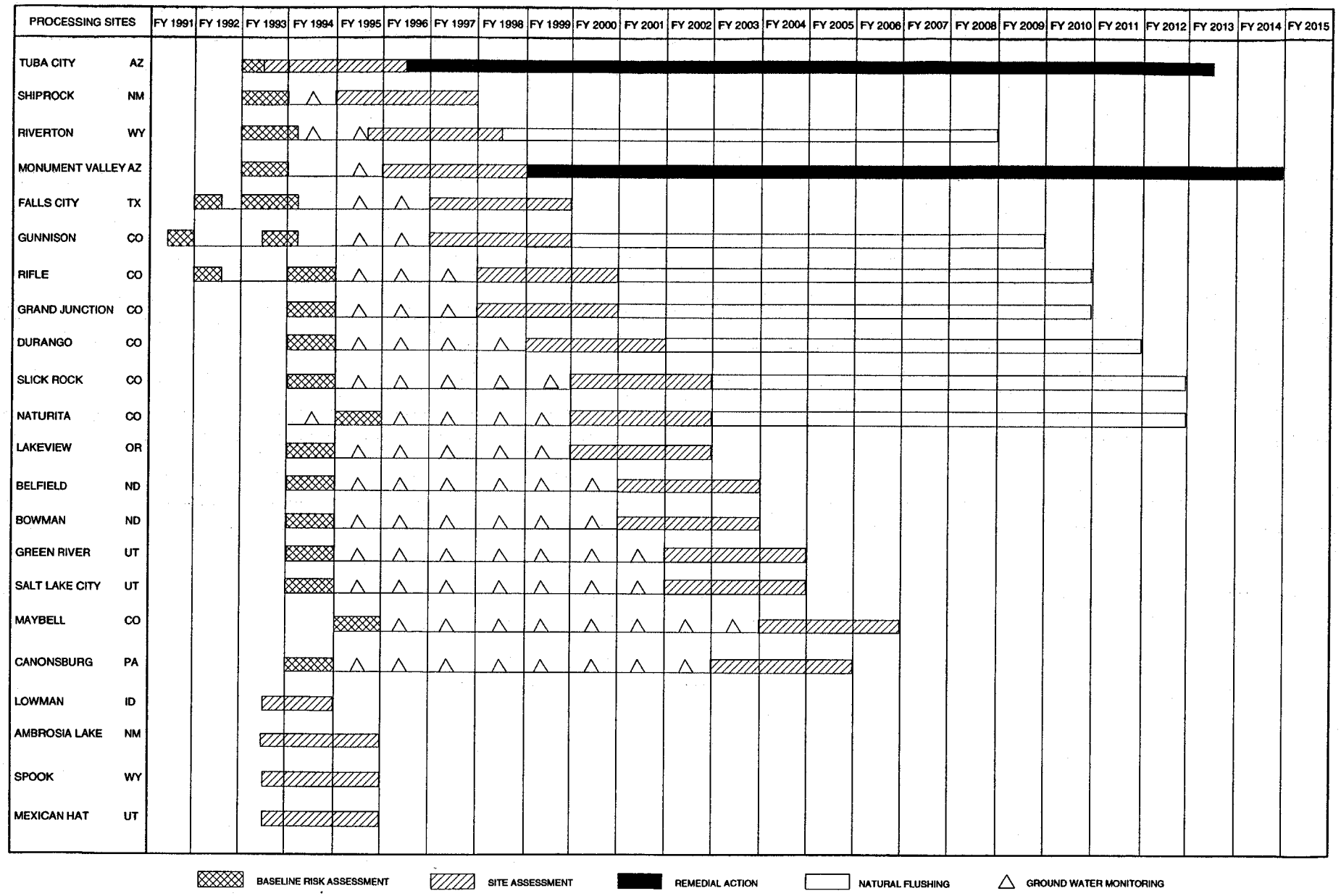


FIGURE 3.2
UMTRA GROUND WATER PROJECT SITES SCHEDULE

lowest schedule level, the work package, and is in turn summed up the WBS to the highest level schedule.

3.4 PERFORMANCE MEASUREMENT

Each month, site managers and department managers are required to review site and non-site schedule status. This review is the basis for providing updates to the COR and updating the fiscal year deliverables list, site schedules, and Project schedule. An analysis of the period's schedule performance is provided to TAC management for review and necessary corrective actions. The PMCS description and procedures describe the methods and assign responsibilities for maintaining and operating the budgeting and scheduling system.

This process is an iterative, continuing series of planning, authorizing, performance measurement, and baseline management activities. Numerous management reports such as the planned, working, and actual schedule dates report (P_Sched) and variance analysis reports (VAR), format I cost performance reports (CPR) and analyses are prepared and distributed to the CAMs, technical manager, assistant project managers, and the Project Manager. In addition, by employing tighter-than-contracted variance thresholds, exceptions to planned performance surface earlier than DOE requirements, allowing the TAC more time to initiate remedial measures to preclude exceeding a DOE threshold and demonstrates prudent use of DOE funds.

3.5 FEDERAL BUDGET PREPARATION

Each year, the TAC is required to prepare individual detailed cost estimates for UMTRA Surface and UMTRA Ground Water Projects. Several revisions are usually required, including at least one edition of the project planning level (PPL), target level, and final budget case for Surface and Ground Water. While the primary focus of these budget submittals encompasses the 5-year planning window, a TAC total estimated cost (TEC) projection is also required. The TAC TEC includes detailed cost estimates for the duration of the Surface and Ground Water Projects by WBS, by ADS, and by site.

The federal budget process also includes preparation and presentation of TAC cost estimates each fiscal year. The TAC is required to present Surface and Ground Water budgets to the DOE Project Office in an annual bottom-up review. The TAC also is required to support other DOE Project Office sponsored reviews, including DOE headquarter ICE reviews, budget validation reviews, baseline validation audits, and MPCE reviews.

3.6 CHANGE CONTROL

As an integrated part of the PMCS, the TAC administers the Project cost, schedule, and technical baseline by site, by WBS, and by project (Surface and Ground Water). The DOE Project Office has established cost and schedule milestones thresholds, as outlined in the IPMS description. All proposed

changes to cost or schedule are reviewed and analyzed internally. Changes that exceed the DOE thresholds are processed through the CCB. The CCB is chaired by senior representatives of the DOE Project Office and attended by key DOE staff members.

A CCB meeting is held by the DOE Project Office monthly to review change requests submitted by the TAC, as well as other Project participants. Change requests submitted by the TAC must be approved by the appropriate DOE site manager, CCB chairman, and the DOE Project Manager.

Upon approval of a change request by the CCB and the DOE Project Manager, the detail schedule and the project baseline (cost/schedule) are updated. The changes are processed through the PMCS and monthly reports are issued that reflect the updated baseline (Figure 3.3).

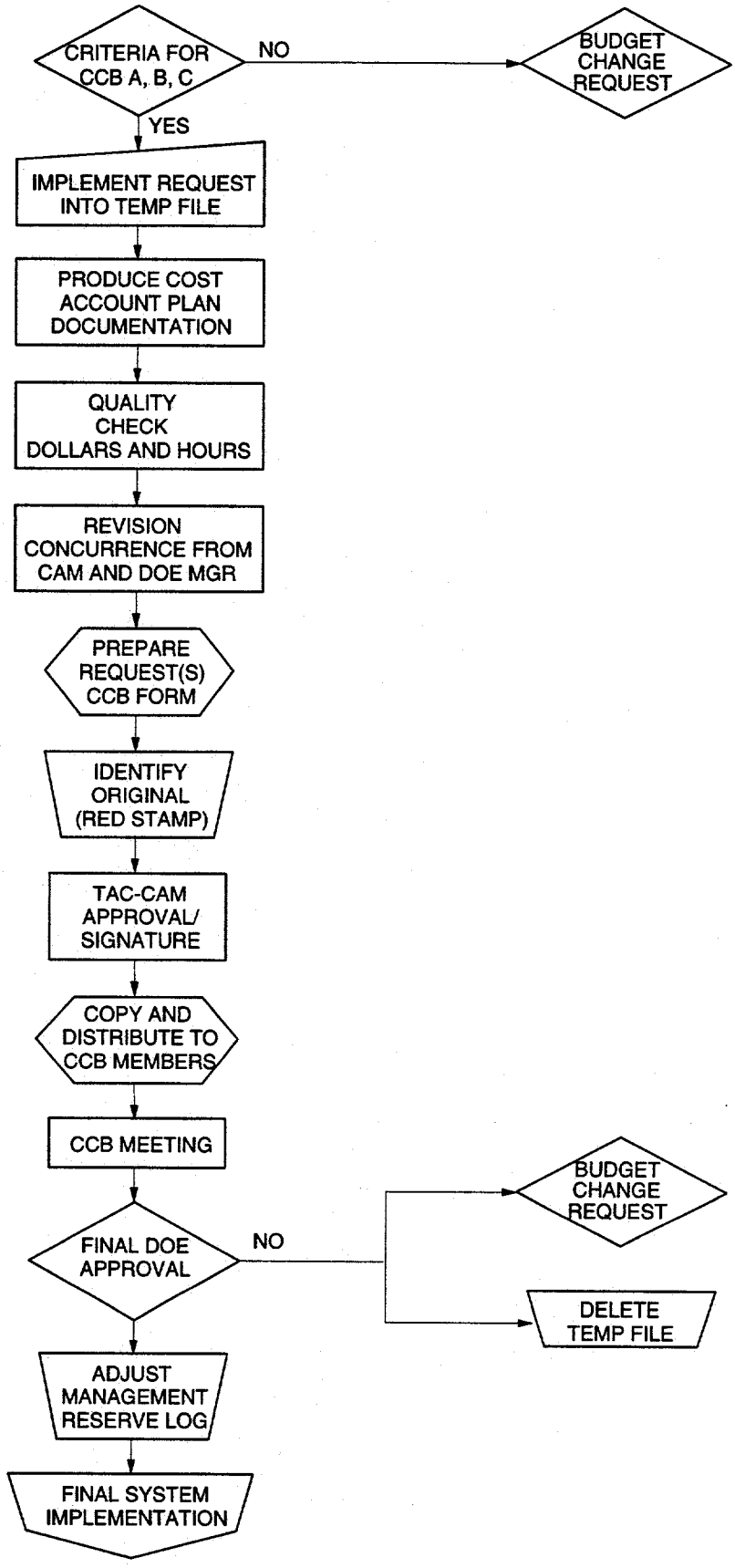


FIGURE 3.3
CCB PROCESS FLOW CHART

4.0 PROJECT ADMINISTRATION

The primary components that comprise the project management systems employed by the TAC on the UMTRA Project assure on-time delivery of a quality product within cost objectives. The application of the TAC technical labor resources to the latest working schedules is accomplished through resource planning meetings (RPM) and the task assignment system (TAS), which use weekly and monthly meetings involving the site and technical managers as well as the responsible assistant project managers. Individual members of the technical staff have weekly up-to-date assignment sheets that describe current work assignments.

Communications are enhanced via use of electronic mail on the latest state-of-the-art electronic systems throughout the TAC and the DOE. TAILS provides a direct link and quick reference to the latest status of deliverables or DOE action items. TAILS identifies the persons responsible for accomplishing the action, the action coordinator, the author, and the backup for manager and DOE ready reference.

Since the majority of the deliverables on the UMTRA Project are documents, there is also a publications tracking system data base available for ready reference. The publications tracking system, TAILS and the quality improvement process are described in more detail in the following sections.

4.1 PERSONNEL MANAGEMENT

The UMTRA Project, with multidisciplinary aspects to both surface restoration and ground water remediation at 24 individual sites in 10 states, presents a formidable task of staffing and managing the appropriate personnel resources to accomplish the various objectives of the Project. The TAC meets this challenge by maintaining a staff dedicated solely to the UMTRA Project to accomplish anticipated, budgeted activities during the fiscal year. The staff is augmented as necessary during the year by drawing upon corporate resources from the teaming partners. This arrangement provides for an efficient staffing of "routine" work, but enables the Project to accomplish additional important work that arises or is otherwise identified during the course of the year. The logistical planning for technical staff work assignments is carried out during regularly scheduled RPMs, as described in Section 4.1.1.

Another critical aspect of resource management is staff development, which ensures that the dedicated staff receive ongoing professional training to ensure that they remain current in their respective areas of expertise, broaden their technical horizons (with respect to multidisciplinary projects), and bring state-of-the-art concepts to the UMTRA Project. Elements that support TAC staff development are discussed in Section 4.1.2.

4.1.1 TAC staff resource management process

Resource planning begins with the estimates to accomplish technical parameters within schedule and cost objectives. Thereafter, the estimate becomes the basis for the budgeting process described in Section 3.0, Management Planning and Controls. A data base system, the TAS, has been developed for the purpose of assuring that the technical, schedule, and cost objectives are met over time. Labor resources, the largest component of the cost drivers for the TAC, are managed through the TAS.

The features of TAS include a LAN-based system that links PMCS budget, schedule, and task data with a user-friendly spreadsheet interface. The system identifies overutilization by employee within the technical departments. It is used for reporting current-year planning at the task level and summarizes up the organization and/or the WBS and by site providing needs by discipline or labor resource type.

Monthly RPMs review accomplishments and resolve any resource conflicts towards achieving technical and schedule objectives. Both technical and site managers attend these meetings. New or changed tasks and/or schedules are reviewed along with a review of task status. New working schedules may be employed along with employee reassignments. Assignment of employees to tasks are made and/or reviewed. The results of these meetings are input on the TAS. Updated department/site employee assignments by task are then distributed to the site and technical managers as well as to the technical staff.

4.1.2 Staff development

The TAC is committed to providing the DOE highly trained and knowledgeable personnel. This commitment requires that personnel receive the training required to remain current in their fields and aware of the changing DOE orders, regulations, and procedures that affect their work on the Projects. The continued professional development of the UMTRA Project staff is maintained by encouraging attendance and presentations at professional seminars specific to the ever-changing field of environmental restoration associated with the UMTRA Project.

To facilitate the tracking of training requirements, the TAC has implemented the TRAIN system. This data base, maintained on the UMTRA LAN, contains each individual's training requirements. The QA Department maintains the TRAIN data base. Individual department managers are responsible for determining and entering the training requirements for their staff. Requirements may include reading DOE orders and SOPs, attending short courses, or formal classroom education. Each UMTRA Project TAC employee is provided a new employee orientation manual upon hiring. Copies of the manual have been distributed to all task and department managers. The manual contains a checklist of the specific aspects of training pertinent to the individual employee. The manual

contains reference materials to assist the employee in becoming familiar with the UMTRA Project and the TAC way of doing business.

The PERC decides who should be allowed to travel to present papers or attend conferences. Generally, the criteria considered is the technical adequacy of the paper or abstract and whether the individual has given a paper, presentation, or workshop within the last year. A general rule of thumb is one conference or workshop per year per staff person. However, not every staff member can go in any given year. By requiring all such attendance be approved by the PERC, the TAC ensures that the available funds will be spent wisely and fairly. The members of the PERC are the Deputy Project Manager, the assistant project manager for Technical Services or his designee, and the assistant project manager for Site Management.

4.2 COMMUNICATIONS

The UMTRA Project is a mature DOE project that has evolved over the past decade and has developed a multitude of systems and stakeholders operating in an extremely complex infrastructure. The TAC role in this structure requires that it maintain a constant awareness of all Project activities and keep the DOE Project Office apprised of all issues. Therefore, a key feature of the TAC's management approach is an extensive set of communication systems implemented for the UMTRA Project. These systems assist all functional disciplines in performing UMTRA Project tasks associated with management, technical support, administrative support, and financial and Project controls. They are described in the following sections.

4.2.1 Meetings

The TAC conducts meetings to accomplish a variety of communications objectives, including dissemination of information, planning, problem solving, and coordinating activities. A continuing effort is made to evaluate the meetings that are conducted to ensure that they are necessary and are appropriately attended. It is the policy of the TAC that all meetings are adequately planned and executed to include advance planning and notification, an agenda, preparation of attendees, adherence to time allowed, and the preparation and distribution of notes after the meeting.

Table 4.1 lists the "standing" meetings that form an important part of the TAC's management approach. Numerous other meetings are conducted, as needed, but those listed below are key to the TAC's Project communications.

4.2.2 DOE communication guidelines

Communication between the TAC and DOE requires a degree of formality. This is a function of the contractual relationship between the two organizations. This guideline is not intended to discourage casual, informal, or social communication with managers and staff of the DOE Project Office. This type of

Table 4.1 TAC standing meetings

Meeting	Frequency	Attendees	Purpose
TAILS meeting	Weekly	All TAC managers	Review current status of TAILS items, deliverables, and current issues. Disseminate information from the Project Manager to TAC managers.
Standup meeting	Semiweekly (Wed & Fri)	All TAC managers	Provide a short (15 minutes) update on current issues and coordinate priorities and activities.
Assistant project manager meeting	Weekly or biweekly	Senior managers	Address significant management issues and plan and coordinate TAC activities among the assistant project managers.
Department staff meetings	Weekly	Department manager and staff	Disseminate information and discuss issues pertinent to the department.
Site team meetings	Variable	Site manager, task manager, site team members	Coordinate multi-disciplinary site activities, disseminate information, and resolve issues.
Quality Council meeting	Biweekly	Council chair, members, and ambassadors	Discuss broad areas of quality advancement applicable to the TAC and deal with quality improvement suggestions.
Kick-off meetings	As needed	Site manager/technical manager (sponsor), task manager or document coordinator, task/document team, Project Office representative(s)	Review scope, content, responsibilities, budget, and schedule for applicable task or document. Project Office representation intended to ensure effective DOE involvement throughout the task.
Resource planning meeting (RPM)	Monthly	Site managers, technical managers, assistant project manager-technical services, assistant project manager-site management	Review and adjust technical staff assignments to meet current schedules, work loads, and priorities.
DOE/TAC management meeting	Monthly	DOE Project Manager and group leaders; TAC Project Manager, Deputy Project Manager, assistant project managers, QA manager, and Public Affairs manager	Discuss Project issues of interest to the DOE Project Manager and group leaders. Obtain feedback on TAC performance. Identify Project Office actions needed to enable TAC performance.

Table 4.1 TAC standing meetings (Concluded)

Meeting	Frequency	Attendees	Purpose
Project critical issues meeting (PCIM)	Monthly	DOE group leaders, site managers, technical managers; TAC Deputy Project Manager, assistant project managers, site managers, technical managers	Discuss predefined issues that are considered critical to Project success. A core group meets prior to the PCIM to set the agenda.
Audit schedule meeting	Monthly	Project Office reps; ROCS manager, ENV Department manager, QA manager	Review and adjust site audit schedules; usually for the remainder of the construction season.
Teaming partner meeting	As needed	TAC Project Manager staff, senior teaming partner representatives, and corporate representatives	Present Project status and projections to senior corporate representatives. Discuss corporate concerns.

contact is actually encouraged because it builds rapport and confidence, which lays a strong foundation for professional communication. However, it is particularly important that the following kinds of communication be conducted through formal channels:

- Commitments to produce a deliverable or establish requirements.
- Changes to the requirements or schedule for a deliverable.
- Delivery of products/documents.
- Presentation of technical information or opinion.

Site-related communications concerning the above items are handled through the TAC site managers. Communications on non-site related topics are handled through the technical or support staff or senior TAC managers, typically with their counterparts in the parallel organization structure of the Project Office. Commitments for unplanned deliverables requiring more than about 8 hours of effort are documented on a TAC Action Memo (TAM) and processed as described briefly in Section 5.1 (SOP 1.4 describes the TAM process).

Part of the professional service that TAC provides to the DOE is the airing of differing viewpoints on technical issues. The way in which these differing viewpoints are presented can have profound consequences on the effectiveness of the communication, as well as the DOE's perception of the TAC's professionalism. Two approaches are preferred:

- Resolve conflicting viewpoints internally and present an agreed-upon solution or approach to the DOE with supporting arguments.

- Present the conflicting viewpoints to the DOE with the best representation of each case so that the DOE may make a fully informed decision.

Formal communication with the DOE occurs via memo through the appropriate assistant project manager or via letter through the Project Manager as specified in applicable Project procedures. All communications directed outside the TAC must go through a site manager, assistant project manager, or the Project Manager/Deputy Project Manager as specified in the procedures.

Communications concerning the UMTRA Project directed to the public or state, tribal, or other federal agencies should always be coordinated through the DOE Project Office. Formal correspondence of this type will normally be sent under DOE letterhead.

4.2.3 On-line electronic information systems

The UMTRA TAC Project team members are fortunate to have access to state-of-the-art LAN systems. The LAN is used by both the DOE Project Office members and the TAC staff. Each member of the DOE Project Office and the TAC have a PC at their workstation for access to the information described below.

These systems or methods have been developed to increase availability to common UMTRA Project information, make it generally easier to access the information, and provide an effective method for communicating throughout the UMTRA Project. Most of the methods are outlined in the following paragraphs.

Electronic mail bulletin boards provide a method of posting information quickly and broadly, reducing the amount of reproduction and internal distribution. Some uses of the bulletin boards include DOE security issues, training announcements and schedules, calendars of Project events, information systems tips, and public affairs news flashes.

The Public Affairs Department maintains fact sheets on all UMTRA Project sites available for viewing on the UMTRA Project LAN. These fact sheets are stored on a public bulletin board on the UMTRA Project electronic mail system.

Most UMTRA Project standard forms are available on the LAN. Having these forms on-line reduces printing costs, storage space, distribution efforts, and handwritten form completion and makes revisions to the forms very easy.

The SOPs are also available on the LAN. This on-line access reduces the amount of paper use on the Project while offering an option to print if required. It also eliminates many problems associated with maintaining and distributing revisions.

These systems and methods are continuously being updated to support our goal of providing on-line electronic information on all computing platforms to all UMTRA Project TAC and DOE users.

4.2.4 UMTRA Update (Newsletter)

Maintaining a regular flow of timely, accurate information to Project employees is essential for high morale and productivity. To address this important need, the TAC has established a monthly Project newsletter, the *UMTRA Update*. The eight-page publication is distributed to all Project Office, TAC, and RAC employees, as well as key subcontractor personnel and selected external stakeholders. It provides current information about the Project's mission, goals, accomplishments, and people; recognizes outstanding performers; highlights important contributions made by the wide variety of professions on the Project; and promotes pride in both the Project and the mission.

4.3 ADMINISTRATIVE SYSTEMS

The TAC support of the DOE requires it to receive direction from numerous individuals and through various channels. These channels range from formal task plan activities to oral requests made in passing. Requests may come from DOE site managers, technical personnel, or group leaders. To coordinate the status of the various resulting activities, the TAC has developed and implemented the following tracking systems.

4.3.1 TAC Action Item Logging System—TAILS

In a service organization such as the TAC, the tracking of action items is critical. Management must be made aware of events that may affect the schedule for completing action items. To accomplish this requirement, the TAILS data base was developed to provide a tool and communication medium that allows the team members, as well as the DOE managers, to more effectively track task status and employee commitment in an environment with multiple critical deliverables. The software allows multiple users to access a common data base of Project-related tasks. Task items are assigned action coordinators, commitment dates, a detailed task description, estimated level of effort, and other related information. Each action item is also identified as an UMTRA task plan, a new unplanned requirement, or a special DOE request (see SOP 1.3, TAC Action Memos).

TAILS items can be tracked with comments and new schedule dates added as needed. Task detail, listings, summary, and management level summary reports can be generated from the system with advanced levels of selection filters/criteria. The wide variety of reports allows the system to be used for many purposes by any PC user on the UMTRA Project LAN, including the DOE.

4.3.2 Pubtracker

In June 1993, the ISPS Department developed a tracking and status reporting system, known as "Pubtracker," for the Publications Department. The system was developed to assist in planning for publications work load, communicating information regarding the status of documents, and capturing a history of the publications process.

Pubtracker is updated weekly by the publications manager and technical editors. Information is gathered by way of meetings, TAILS, the budget and planning documentation, and verbal or written notification by authors, document sponsors, or document coordinators.

Information may be sorted and reported by site, document type, date due to the DOE, document coordinator, and technical editor. Pubtracker's reports are used during technical managers and site managers meetings to review the progress of deliverables. It is also available to anyone who has access to the LAN for checking progress and status of any document in the system.

The implementation and use of Pubtracker has significantly increased the visibility of the publications work load and has allowed the TAC to be more effective in planning and scheduling resources and establishing work priorities.

4.3.3 Travel system

All travel by TAC personnel is governed by FAR 31.205-46, which sets forth travel and general allowance costs. Federal travel regulations (FTR) also prescribe meals and incidental expenses (M&IE) when on travel under the UMTRA Project contract (Nienow, 1994). UMTRA Project contract travelers must also follow guidelines for long distance calls and maximum per diem rates (Nelson, 1994; Nienow, 1993).

Travel authorizations are filled out with all required information and processed for approval through the TAC management and DOE Project Office. They are then entered into the Automated Travel Logging and Awareness System (ATLAS). A report is generated from ATLAS weekly to apprise TAC management and the DOE Project Office of TAC staff traveling on UMTRA-related business, such as site-related conferences and training.

The responsibility for adherence to the FTR, FAR, and other guidelines resides primarily with the CAMs, site managers, and department or technical managers on the UMTRA Project.

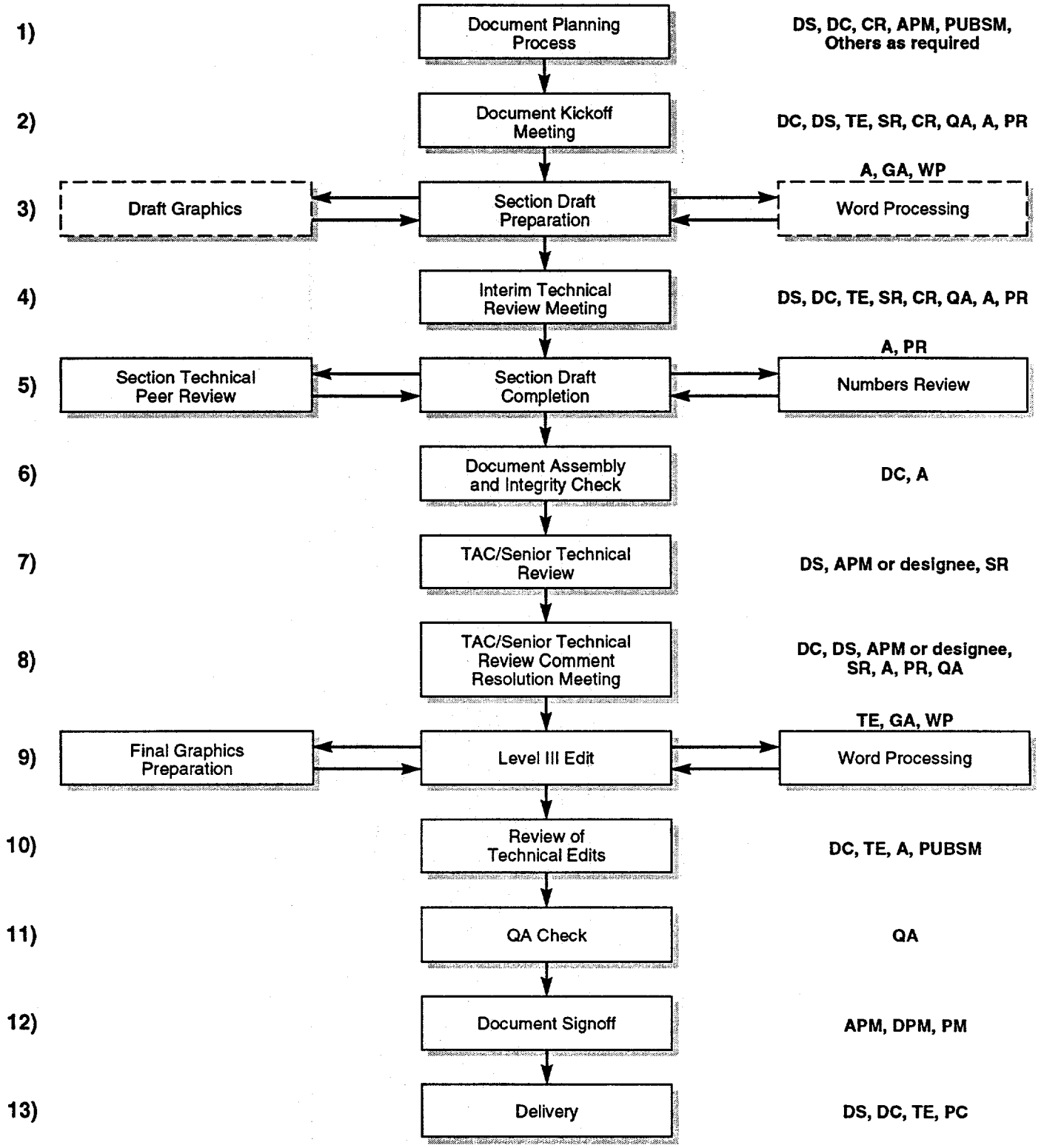
4.4 DOCUMENT PRODUCTION PROCESS

The TAC process of review and production of documents was designed to ensure timeliness and quality of deliverables. The process is shown in Figure 4.1 and described below. For recurring documents, detailed activity descriptions (DAD) (Figure 4.2) are typically available for the document team to begin the planning process. DADs provide additional information for the major activities required to prepare the document, including the scope of each activity, the schedule duration and logic constraints, the estimated staff resources needed, special considerations, and references required to complete the activity.

- Step one of the document production process, document planning, emphasizes front-end planning. During this step, the document sponsor, document coordinator, DOE representative, PUBS manager, and QA representative meet to discuss the purpose of the document, its audience, preparation requirements, and references. This information and a draft annotated outline are documented through the preparation of a deliverable item description (DID) (Figure 4.3).

- During step two, the document kickoff meeting, the document sponsor, document coordinator, DOE representative, technical editor, QA representative, senior technical reviewer, peer reviewers, and authors are brought together to review the DID and DAD, potential issues, problem areas, technical challenges, data requirements, schedule, and milestones.

- From agreements reached in this meeting, the final DID, task plan/work authorization, and detailed document preparation schedule are documented and sent to all participants.



A Author
APM Assistant Project Manager
CR Client Representative
DC Document Coordinator
DPM Deputy Project Manager
DS Document Sponsor
GA Graphic Artist
PC Production Clerk
PM Project Manager
PR Peer Reviewer
PUBSM Publications Services Manager
QA Quality Assurance Representative
SR Senior Technical Reviewer
TE Technical Editor
WP Word Processor

FIGURE 4.1
DOCUMENT PRODUCTION/REVIEW PROCESS

DETAILED ACTIVITY DESCRIPTION	IDENTIFICATION	
	PROJECT	UMTRA
TITLE:	TASK	
	WBS	
	DATE	

SCOPE OF WORK:

DURATION AND LOGIC:

RESOURCES:

DISCIPLINE	QTY	SCOPE/BASIS

RESOURCES:
COMMENTS/REMARKS:

SPECIAL CONSIDERATIONS:

REFERENCES:

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FIGURE 4.2
DETAILED ACTIVITY DESCRIPTION

DELIVERABLE ITEM DESCRIPTION	IDENTIFICATION	
	PROJECT	UMTRA
TITLE:	DELIV. REF.	
	DATE	
DESCRIPTION/PURPOSE:		
APPLICATION/INTENDED AUDIENCE:		
CONTENT:		
PREPARATION REQUIREMENTS:		
REFERENCES:		

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FIGURE 4.3
DELIVERABLE ITEM DESCRIPTION FORM

- Major, in-depth reviews of the document occurs early in this process. Steps three through eight include document preparation and a series of reviews and comment resolution meetings. The number of reviewers and types of reviews are limited; each reviewer is given very detailed review directions.

- The interim technical review and comment resolution meetings provide an opportunity to reinforce the team's understanding of the document purpose and goals. The meetings are also useful for identifying and resolving technical issues that arise during the course of document preparation.

  These frequent checks are important in the TAC environment because of the many technical disciplines required to prepare a document, the many stakeholders whose interests must be protected, and the many reviewers who will comment on a document from different perspectives.

- Steps nine and ten of the document production process are completed by the PUBS Department staff in the preparation of the document for delivery. Word processing and graphics support are available earlier if needed by authors for preparing review versions of text and figures. However, at this point, the technical editors, word processors, and graphic artists assume responsibility for the document's final preparation. A substantive edit is performed, graphics are finalized, and final formatting, production, and assembly occur. The technical editor works very closely with the document coordinator and authors to ensure errors are not introduced.

- Step eleven is the final check of the document process before delivery. A QA representative is active throughout document production, ensuring that the correct process is followed and documented. At this step, the QA representative reviews the final document and the contents of the sign-off folder before passing it along for sign-off and delivery (steps twelve and thirteen).

Although the document production process appears to be long and complex, it actually reduces the time required to produce documents (by eliminating or greatly reducing rework time) and improves the quality of documents. Because the DOE is involved from preliminary planning through review and comment resolution steps, the document has a better chance of fulfilling the DOE's needs.

A graded approach to the process may be used. Obviously, not all documents require extensive review. Short documents, documents that are part of a well-defined series, documents written by a single individual, or documents that do not have a major impact on activities may go through an abbreviated process, with the approval of the appropriate assistant project manager.

4.5 RECORDS MANAGEMENT

The UPDCC is part of the DOE Project Office that is managed by the TAC. The UPDCC is charged with preserving copies of all correspondence and other

records pertaining to the UMTRA Project since its inception. Approximately 80 percent of these records have been designated by the National Archives and Records Administration (NARA) as information that could be vital to the interests of the U.S. government for at least 100 years after Project completion. Therefore, the TAC must collect, safeguard, and eventually send these records to NARA in Washington, D.C. It is the responsibility of all Project staff members to ensure that correspondence they receive or generate is sent to the UPDCC and that all records borrowed from the UPDCC are handled carefully and returned to the center.

The UPDCC maintains the following records collections for the Project:

- Correspondence files—all correspondence and documents from the beginning of the Project (1983) to the present (including field and laboratory data).

- Reference collection—technical books and documents on a variety of subjects to support research by Project staff. A limited number of technical journals are also subscribed to and housed in the UPDCC.

- Federal regulations—current six months of the *Federal Register* are kept on-site; older editions are housed in remote storage. The UPDCC also has copies of titles of the CFR that pertain to Project needs.

- Engineering design drawings (produced by the RAC), U.S. Geological Survey topographical maps, site photographs (glossies, slides, and overhead transparencies), and RAC contract documents are also housed in the UPDCC.

Administrative records, personnel records (except dosimetry records), and contract records are maintained in the DOE Project Office and in the various teaming partner corporate offices.

See Section 2.5.4, Publications Services Department, for additional information on the UPDCC.

5.0 TECHNICAL MANAGEMENT

Technical work accomplished on the UMTRA Project is initiated through a series of interrelated contracting vehicles and guidance documents. The definition of technical work to be performed by the TAC is contained in the UMTRA Project TAC contract. UMTRA Project Office staff examine the UMTRA Project master schedule annually and enumerate activities or deliverables to be performed or delivered by the TAC under the scope of the contract during the upcoming fiscal year. This is the fiscal year task assignment. The TAC staff evaluate this assignment and in turn prepare a fiscal year task plan, which provides the supporting details concerning how the task assignment will be accomplished.

The resources necessary to perform the required tasks are planned using the required schedules in the TAS described in Section 4.1.1. The technical performance of the work is governed by various DOE orders, state, federal, and local regulations, regulatory guidance documents such as NRC's *Standard Format and Content Guide for Remedial Action Plans*, and EPA's *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846*. Additionally, the following UMTRA Project guidance documents provide for a consistent, defensible approach to the work being performed:

- *Technical Approach Document* (TAD), UMTRA-DOE/AL-050425.002—This document describes the general technical approaches and design criteria adopted by the DOE to implement RAPs and final designs that comply with EPA standards related to the stabilization of uranium mill tailings. It does not address the technical approaches necessary for ground water restoration.

- *Technical Approach to Groundwater Restoration* (TAGR), DOE/AL/62350-20F—This document provides general technical guidance to implement the ground water restoration phase of the UMTRA Project. It provides a technical overview of how the ground water program will be conducted, including the regulatory basis and requirements for compliance and provides a framework for program activities needed to meet those requirements.

- *Risk Assessment Guidance Document for the UMTRA Project Groundwater Remediation Phase*, UMTRA-DOE/AL-400680.0000—This document describes the general technical approach to prepare risk assessments to assist in guiding the ground water regulatory compliance program and support the NEPA process. The methodology contained in this manual is consistent with the EPA Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

- *Guidance for Implementing the UMTRA Project Long-term Surveillance Program*, UMTRA-DOE/AL-350125.000—This document provides instructions for preparing the disposal site LTSPs and for carrying out the UMTRA Project long-term surveillance program, including any monitoring that may be required by 40 CFR Part 192, Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings.

- *Quality Assurance Implementation Plan* (QAIP), DOE/AL/62350-72D—This document outlines the methods for integrating quality functions for TAC technical activities

applied to the surface and ground water phases of the UMTRA Project. The QAIP is subordinate to the latest issue of the UMTRA Project TAC QAPP.

5.1 TECHNICAL WORK DEFINITION

Before initiating tasks identified in the task plan or SOW, a clear definition of the work to be accomplished or problem to be solved is agreed upon by the site manager, technical manager, and technical staff. An example of the elements that would be considered before initiating a large programmatic effort such as ground water restoration is illustrated in Figure 5.1. Smaller supporting tasks may not be as involved but are still tied to the programmatic structure of the Project.

The definition of the task is accomplished following the Project's document production/review process, since so many of the planned tasks the TAC undertakes results in the preparation of a formal document. This process is outlined in Section 4.4 in detail. In addition to planned tasks, numerous unplanned or ad hoc Project-related activities are undertaken by the technical staff. These tasks may be initiated by informal communication with TAC or DOE staff or managers. Depending on the nature of the request, it may be executed by preparing a DID/DAD (described briefly in Section 4.4) as required and charging a site-specific account, or documented and tracked by preparing a TAM (Figure 5.2), which authorizes the activity (SOP 1.4 describes the TAM process). Resources are allocated to tasks based on complexity, duration, and risk. Where necessary, plans are changed in accordance with changing requirements to control cost drivers, schedule, or rising complexities.

5.2 TASK IDENTIFICATION

As discussed above, planning meetings are generally held to clearly define the required work and tasks necessary to accomplish the identified objective. In some instances, the task identification will be self explanatory, such as conducting a design review of a disposal cell currently undergoing construction. In this instance, the pertinent documents are evaluated against the specifications outlined in the RAP (which conforms to the requirements of the TAD) and documented according to procedures outlined in SOPs 17.1.2 "Compilation of Design Calculations" and 17.2.1 "Conceptual Design." In other instances, especially when planning to write a complete new document or report, the particulars of the task identification may be found in the DID and the associated task plan/work authorization form. Likewise, if a TAM is being executed, the desired product is defined therein.

5.3 TASK IMPLEMENTATION

Work on the identified task is implemented in accordance with the TAM, the DID, task plan/work authorization guidance and/or the DAD, with consideration given to the relevant guidance documents, DOE orders and SOPs discussed in Sections 2.5 and 5.0. The SOW, duration and logic, resources, special

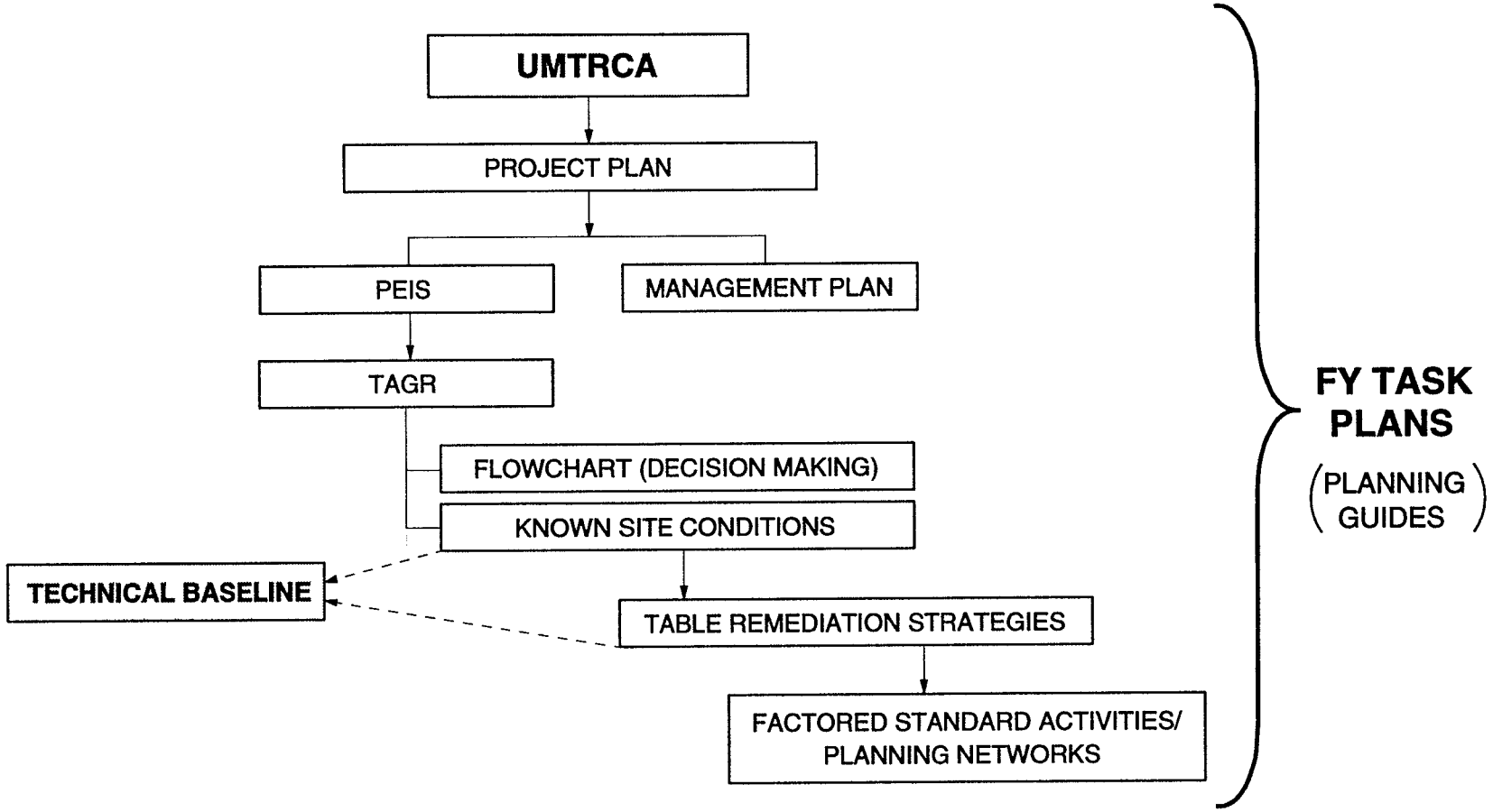

FIGURE 5.1
GROUND WATER SCOPE BASELINING

JACOBS ENGINEERING GROUP INC.
ALBUQUERQUE OPERATIONS

TAC ACTION MEMO

ACTION REQUEST
1. DATE OF REQUEST: ____/____/____ 2. TAM CONTROL #: _____
3. NAME, TITLE, AND SIGNATURE OF DOE REQUESTOR: _____
4. DESIRED REPLY DATE: ____/____/____ NO LATER THAN DATE: _____
5. DOE ACTION REQUESTED: _____

6. TYPE OF REPLY REQUESTED: ☐ Report ☐ Letter ☐ Informal/Verbal ☐ Other _____

TAC ACTION ASSIGNMENT
1. DATE ASSIGNED: _____ 2. ESTIMATED LABOR HOURS: _____
3. DATE REQUIRED: _____
4. TAM ADMINISTRATOR: _____
5. RECOMMENDED ACTION COORDINATOR: _____ Name _____ Organization
6. ACTION ASSIGNED TO: _____ Name _____ Organization
7. ACTION REVIEWED BY: _____ Name _____ Organization
8. REMARKS: _____
9. APPROVAL OF REQUEST BY PROJECT MANAGER: _____ Date
10. CHARGE ACCOUNT #: _____ 11. TAILS ID #: _____

TAC DELIVERY
1. DATE OF COMPLETION: _____
2. TAC ACTION COORDINATOR SIGNATURE: _____
3. ACTUAL LABOR HOURS EXPENDED: _____
4. RETURN FORM TO TAM ADMINISTRATOR: _____ Date

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FIGURE 5.2
TAC ACTION MEMO FORM

considerations, and necessary reference materials have now been identified and listed. In instances where field data are collected, data collection objectives (DCO) are documented outlining the purpose of the data collection effort, how the data will be used, and the range of expected results which relate back to their anticipated use. Data quality objectives (DQO) are prepared to ensure that the collected data is of known and appropriate quality to satisfy the intended purpose, the DCOs. The development of DQOs is part of the planning process and is specified for every environmental sampling data collection activity of the UMTRA Project. DQOs are presented in the UMTRA Project TAC chemical analysis SOP, site WSAPs, SOWPs, SOWs, sampling work orders, SOPs, and other task-specific documents. Additional details regarding TAC's programmatic management of data collection activities can be found in the QAIP.

5.4 TECHNICAL CHANGE CONTROL

During the course of completing a given task assignment, changes in scope or direction may be necessary for a variety of reasons. This is common in environmental cleanup programs such as the UMTRA Project. For example, the identification of necessary changes could occur during the 50 percent technical review meeting that is conducted during the document preparation process (see Figure 4.1). This is the ideal time for task team participants (document coordinator, document sponsor, technical editor, senior technical reviewer, DOE representative, QA representative, author, and peer reviewer) to identify or recommend changes. If the changes require a budget or schedule adjustment, they are documented and managed with baseline change requests (BCR) or CCB requests discussed in Section 3.0. Due to the wide variety of concurrent tasks that are being performed, special efforts are taken to ensure that management, DOE representatives, and other stakeholders are kept informed of changes as they are identified, so that coordinated, agreed-to adjustments can be implemented. Changes also are occasionally initiated through TAMs written by the DOE or through recommendations from independent review teams. Status updates in TAILS are used extensively to document the chronology of changes associated with these activities. All changes to the baseline are tracked and controlled based on the guidance contained in the UMTRA Project TAC system description, which is described briefly in Section 3.0.

6.0 QUALITY IMPROVEMENT

The UMTRA Project TAC quality policy is to provide a continuous process of quality improvement in all areas of performance. Quality improvements are provided through continuous improvement of procedures and processes.

6.1 QUALITY COUNCIL

The Quality Council's objective is to design and lead the implementation of the TAC's TQM activities. The Quality Council establishes the framework and monitors the process of quality improvement to ensure the TAC meets and exceeds the DOE's expectations. The Quality Council performs the following functions.

- Models behavior reflecting the core values of the TAC.
- Provides leadership and guidance for the quality process.
- Develops strategic quality goals and objectives.
- Determines the sequence and timetable for quality implementation.
- Provides recognition for those contributing to quality advancement.
- Evaluates the effectiveness, value, and priorities of recommendations, and may select the initial processes for QITs.
- Develops training recommendations for quality initiatives implementation.
- Charters QITs.
- Monitors progress of quality initiatives.

The TAC Quality Council is composed of the Deputy Project Manager, the assistant project managers, the QA manager, and other members appointed by the Project Manager. There are also three ambassadors from the TAC staff to the Quality Council, each serving a 3-month term. The terms are staggered so that a new ambassador is nominated every month. The purpose of the ambassador program is to raise the awareness level of management's commitment to quality and to encourage staff involvement in quality. The ambassadors are requested to participate in the Quality Council meetings and to share their experiences with their co-workers.

The opportunities for reducing costs and improving productivity are endless. The TAC's objectives in these area are:

- Improve productivity and quality.

- Heighten the general cost consciousness of Project participants at all levels of their organizations.

- Identify and implement specific innovative employee ideas that extend beyond what is required through existing processes and procedures.

- Emphasize efforts that create additional value for the money spent by maintaining the Project TPC at the lowest possible level.

To reach these objectives, the TAC maintains two integrated suggestion programs: the CR/PIP and the QIS program. The CR/PIP is a DOE program which the TAC participates in and manages for the Project Office. The program guidelines and requirements are outlined in *UMTRA Cost Reduction and Productivity Improvement Program Project Plan*, dated October 1992. The QIS program is an internal TAC program. The QIS and CR/PIP programs are linked via a single form used for the cost reduction aspects of any QIS and is tracked in the CR/PIP system. Suggestions submitted as QISs may be for quality improvement, cost reduction/productivity improvement, or ES&H.

The QISs are provided to the Quality Council, which ensures that the underlying issue in any suggestion is addressed, whether by assignment to a QIT, an appropriate manager, a department, or some other route. The suggestions are tracked through the use of the TAILS data base. Additionally, the DOE tracks the progress of cost reduction and productivity improvement suggestions for the DOE's CR/PIP program.

Results of the implementation of the TAC's cost reduction and productivity improvement program are contained in the table below:

TAC CR/PIP goals through 9/30/94	Submittals as of 8/30/94
Quantity: 97	Open: 28 Implemented: 60 **Total: 88**
Dollars: $2.2 million	Actual dollars: $3.2 million

6.2 INDEPENDENT TECHNICAL REVIEWS

Independent technical reviews (ITR) are conducted to enhance the quality of technical documents, processes, or systems by providing additional independent high-caliber expertise. Peer reviews have been used successfully for years by the design and construction industry to ensure quality in work products. Not all documents or procedures will be subjected to peer reviews. Potential candidate subjects for reviews will be carefully considered for review by the TAC and the DOE. During an ITR, reviewers examine the consistency and defensibility of

technical concepts, methods, studies, and/or conclusions presented in UMTRA Project documents and procedures.

6.2.1 ITR distinguishing characteristics

ITRs are extra efforts, not routine procedures performed daily on typical projects, activities, or design processes. Because an ITR is defined apart from "normal" quality management activities, it should be seen by all participants as an endeavor that demands special attention, time, and procedures because special benefits are expected.

An ITR is not the application of normal checks and balances within the UMTRA Project that are a part of standard Project procedures and everyday routines associated with quality management or design. An ITR is not simply a review of a document by anyone other than its author, even if the reviewer is at or above the author's "peer" level. Additionally, an ITR is not a value engineering study. A basic difference is that value engineering of a design focuses on potential cost savings, while an ITR of a design examines the validity of the design, including, in many cases, the procedures used and the management of the process.

An ITR is always conducted by persons who are independent of the subject under review. Reviewers should be administratively (and sometimes geographically) remote so that there is no question of their complete independence and impartiality.

A peer review has a specified purpose, scope, format, and duration, distinguishing it from other reviews that may be performed on a less systematic basis, such as the existing internal Project peer review process. It has a commissioning, a beginning, a report, and a decommissioning.

6.2.2 Levels of ITR

Two levels of peer review, with increasingly stringent procedures, will be employed on the UMTRA Project. An additional type of internal, informal review is the subject of an UMTRA Project SOP (8.1.3, Peer Review) and is not included in this management plan.

Level I

A Level I review can be flexible in format based on guidance from the appropriate managers. The structure of this level of review is less rigid than Level II reviews. A Level I review will be conducted by TAC corporate specialists and will require DOE notification and approval. Examples of this type of review include peer reviews of data validation procedures and the TAC UMTRA water sampling program.

Level II

A Level II review requires a predetermined method of meetings and formal review presentations. This type of review will normally be conducted by organizations outside the TAC. For example, ground water remediation designs would be subject to a formal, Level II review process to formally document the results of the peer review to the DOE and others. Level II reviews have a very formal structure in order to assure an independent check or review of an issue. This level of peer review also requires DOE notification and approval.

7.0 CONCLUSION

The TAC is proud of the role it has played in support of the DOE UMTRA Project Office during the past decade as the UMTRA Project has evolved. This plan has been developed to document the TAC's current organization and approaches used for managing the demanding technical challenges presented by the UMTRA Surface and Ground Water Projects. It is a key management document in that it contains the TAC's vision and mission statements and its highest level goals. It also describes the roles and responsibilities for each of the departments comprising the TAC. It will be an often-cited reference by TAC managers and staff and used in training new employees within the TAC across the four teaming partners.

This management plan is considered to be a "living" document by the TAC and will be revised periodically to ensure that it accurately describes the continually evolving organizational and technical approaches used to deal with Project tasks and issues.

8.0 LIST OF CONTRIBUTORS

The following individuals contributed to the preparation of this plan.

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