

REPRESENTATIVE  
NON-KEY RESUMES

PHYSICAL SCIENTIST/CLASSIFICATION SPECIALIST

MINIMUM QUALIFICATION REQUIREMENTS

*A bachelor's degree in physics, engineering, or computer science, followed by at least four years of related on-the-job training involving program oversight and/or classification of nuclear weapons, high explosives, inertial confinement fusion (ICF), or laser isotope separation programs. (An advanced degree in one of the above technical areas is desirable as well as experience/skill in conducting training classes for technical staff and experience in ad hoc inspections...*

The ADC Team's candidate holds a B.S. degree in Engineering and an M.S. in Nuclear Physics, and possesses 29 years of on-the-job experience in nuclear weapons and high explosives, including determining classification guidance. Our nominee is experienced in coordinating training efforts and was a member of the Army Inspector General's Special Inspection of Army Nuclear Matters (SIANM).

SUMMARY OF QUALIFICATIONS

Experienced in classification guidance for weapons research programs

Extensive experience as a Program/Project Manager for such programs as the Advanced Ballistic Missile Defense Agency, the DOD-DOE Joint Lethality program, the Field Command Defense Nuclear Agency, and Non-Strategic Nuclear Force Command and Control program

Major contributor to several key Army studies and inspections

EXPERIENCE

Our candidate has over 24 years of line management experience, including command supervisory positions in the United States Army. This individual was responsible for the planning and supervision of combined combat operations in Vietnam and Cambodia. Our candidate has been the Chief of Chemical and Nuclear Operations for U.S. Army Europe. The nominee has also been the team chief for an OJCS nuclear operations planning group that dealt with both strategic and theater nuclear force contingency and preplanned operations. For over six years this individual was the Chief of the Material and Safety Division and the Deputy Commander of the U.S. Army Nuclear and Chemical Agency.

The nominee has also performed program/project manager responsibilities for several significant programs including Nuclear Coordinator for the Advanced Ballistic Missile Defense Agency (ABMDA). In this capacity the nominee was charged with the oversight of all the technical programs to ensure that all programs were compatible with a nuclear environment. As such, this individual was responsible to the director for the nuclear survivability testing and hardness assurances of all advanced ABM components and system constructs. The candidate was also responsible for the execution of the U.S. Army's portion of the DOD-DOE joint lethality

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program. The candidate was responsible for initiating within the DOD ballistic missile defense community the neutral particle beam studies. Our candidate was responsible for the design and field testing (simulator and underground tests) of candidate target systems.

While assigned to Field Command Defense Nuclear Agency, our nominee was responsible for managing nuclear weapon system warhead feasibility studies and providing technical design requirements for nuclear warheads and warhead sections for the DOE and the Services. Our nominee was responsible for Army, Navy, and Air Force feasibility studies. The nominee was a DNA member of the "Pebble" Committee that ascertained the desirability and feasibility of Multiple Independently Targeted Re-Entry Vehicles (MIRV). Our candidate was the DNA lead member of the DOD-DOE RV Lethality Committee. Our candidate also participated in both ICBM and ABM system nuclear hardening efforts to include underground test beds. In addition, while assigned to Livermore, the nominee was responsible for assisting in the Phase 3 Engineering Development of both Strategic and Theater nuclear weapon programs. As such, the candidate was responsible for environmental and hardening test specifications and preliminary joint testing of four weapons. Our candidate has been key in determining classification guidance documents for individual weapons and research programs, and was selected at various times to represent agency service and joint positions to include CG-W-4 & 5.

Our candidate managed the nuclear weapons technical and operational safety program for the U.S. Army. As Chief of the Material and Safety Division at the U.S. Army Nuclear and Chemical Agency, the candidate chaired and led fourteen operational Safety Reviews of Army and Army, Navy (USMC) shared weapons systems. The operation Safety Reviews included examining the systems that support Allied requirements where agreements existed. In doing so, he and his joint DOD-DOE teams traveled in Europe, the Middle East and the Pacific examining technical, operational and procedural matters for the complete nuclear system from production to expenditures or retirement.

While in Europe the candidate was involved with the planning for and execution of the NATO Long Range Site Improvement Program. As Chief of Nuclear Operations Branch, he had supervision for the U.S. Army Europe, and supported an Allied site to ensure that security improvements were effective and that progress engineering did not compromise current security, safety and mission requirements.

The candidate has provided technical assessments dealing with long range research and development opportunities for nuclear warheads and weapon systems in the area of security, safety, survivability, selectivity, and communications. As such he contributed to Task 9 of the Long Range Research and Development (LRRD) II program undertaken by BDM for the Defense Nuclear Agency. He assessed multiple technical and operational approaches to improving the stockpile to better serve the needs of the national Command Authority while meeting the readiness, employability, and military effectiveness requirements of the using commands. Specific recommendations for research development and acquisition were presented in a time-phased system approach. Areas requiring extensive research and development, but with a potential for high payoff, were especially examined to provide the DNA with a possible development schedule given certain levees of resource support. The undertaking was extensively researched and coordinated with the DOE and its contractors.

In addition the candidate completed an analysis of a proposed concept of operations for the Follow On To Lance (FOTL) which included an unique nuclear weapons support concept. Simultaneously our candidate assisted in the analysis of the system effectiveness of the combined FOTL and Army Tactical Missile System (ATACMS) in an integrated battlefield environment against a Warsaw Pact force. As a result of the analysis strong recommendations were made.



Our nominee was a principal contributor to four joint DOD-DOE studies dealing with the management of the nuclear weapons system program and the need to improve the nuclear safety of the deployed nuclear weapon stockpile. During the 1974-1976 time period, our nominee was the Army staff representative on the AEC to ERDA reorganization study. Our nominee also represented the Army during 1975-1976 in assessing the stockpile weapons and programs for needed improvements and modifications to meet modern requirements. In 1980-1981 our candidate was the member representing the Joint Chiefs of Staff Office on the joint DOD-DOE Starbird Study that made additional organizational, procedural, and program recommendations to DOE and DOD concerning the nation's nuclear weapons programs. This individual's contributions were primarily in the area of nuclear weapons system feasibility and emerging development trends to include testing requirements. The candidate was also a contributor to technical safety, use control, and command procedures for the deployment and employment of strategic and tactical nuclear weapon systems. During the 1986/86 Judge Clark Relook at the DOE-DOD relationship in the national security arena he was a major contributor in the technical interface and safety areas while supporting the independent research and evaluation area.

Our nominee was, in addition, a member of the Army Inspector General's Special Inspection of Army Nuclear Matters (SIANM), which was accomplished by the direction of the Army Chief of Staff. The candidate was principal contributor/author in the area of research, development, testing (reliability/survivability) and hardening of the complete Army fighting systems that had to exist in a combined conventional chemical and nuclear environment. Our candidate was also responsible for examining, assessing, and reporting on unit survivability awareness and operational measures garnered from examining the U.S. and Allied units in a field environment.

#### **EDUCATION/TRAINING**

B.S. in Engineering, U.S. Army Academy, 1958  
M.S. in Nuclear Physics, Tulane University, 1965

#### **SECURITY CLEARANCES**

DOD Top Secret with access to SCI and SAPs, Active  
DOD SBI Clearance  
DOE "Q" Clearance, Active



REPRESENTATIVE  
NON-KEY RESUME

CLASSIFIED COMPUTER SECURITY SPECIALIST

MINIMUM QUALIFICATION REQUIREMENTS

*Must have a minimum of four years practical experience in the computer security field. Must be able to demonstrate practical working knowledge of the security concerns associated with operating classified computer systems. A Bachelor's degree or equivalent experience in computer science or the computer, electrical, or related engineering field may be counted toward two years of the minimum experience requirement ...*

A.A. in Computer Science and is a candidate for a B.S. degree in Computer Science. This individual has over eight years of related experience in areas where skills in UNIX, VMS, software and hardware life-cycle support, software design, and computer security were required. The candidate hold a DoD Top Secret Clearance.

SUMMARY OF QUALIFICATIONS

Served as Computer Security Officer for the National Security Agency Logistic Computer Facility

Experienced in the technical management, administration, and computer security for systems conforming to National Security Agency's criteria for secure operations in a large, multi-server environment

Knowledgeable in the development of standard operating procedures for software, hardware, and operations aspects in a secure environment

PROFESSIONAL EXPERIENCE

Currently a BDM employee, the ADC Team's candidate has been instrumental in the maintenance of multiple systems for the Consolidated Support Services contract in support of the National Security Agency. Our candidate has successfully researched, designed and implemented software solutions for discrepancies on the RCP, IROM, and REX systems. These systems are complex, real-time systems operating on the CDC cyber computers utilizing the NOS operating system. In addition, he has been available on an on-call basis to perform corrective maintenance on the operational systems after hours, and serves as the UNIX system administrator. His current environment houses approximately 50 SUN SPARCstations and two SUN servers. Workstations on the network are executing both SUNOS 4.1.3 and Solaris versions of the UNIX operating

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system.

This candidate has successfully lead the development of four software upgrades to the REX system. These upgrades were directly related to the workstation rehost effort which involved porting menu interfaces on a MEGATEK workstation to a Graphical User Interface (GUI) on a SUN workstation. His involvement in this effort ranged from scheduling and tasking through development and testing to code reviews and installations.

While employed at the National Security Agency, the candidate served as the Computer Security Officer at the Logistic Computer Facility, initiating such security safeguards as session identifiers and a system of security menus to control access to six HP 3000 mainframe computers connected via an ethernet network. The systems supported over 600 users remotely accessing the systems through the network from PC-based computers. The candidate was responsible for ensuring only authorized users could access any of the systems and the application software there on. The nominee accomplished this task by establishing standard operating procedures (SOPs) for creation of new user accounts. These SOPs required users to submit justification for system and application use, along with the approval from the application owners.

Our candidate has prior experience in software life-cycle support projects. He has supported a PC-based bulk forwarding system using C/UNIX and in RF search system using HP Basic. In addition, he has conducted and directed the installation and system administration of the PCs and SUN SPARCStations within secure environments.

The ADC Team candidate has had professional experience programming in C, PASCAL, FORTRAN, COBOL, RPG, and Assembly. He has hands-on experience with TANDEM (Guardian), HP3000 (MPE, MPEX), HP9000, Sun Workstation (UNIX), PC (UNIX, VMS, and DOS), and Macintosh computers and operating systems. In addition, he had professionally applied DevGuide, DBX Tool, Procase, RPC, TLI, S&P SparcWorks, Framemaker, Interlead, and Multi-threaded Programming Concepts development tools.

#### EDUCATION/TRAINING

B.S. Candidate in Computer Science, University of Maryland Baltimore County  
A.A. in Computer Science, Catonsville Community College, 1992  
Certificate, Business Data Processing, South Eastern Vocational Technical Center, 1986

#### SECURITY CLEARANCE

DoD Top Secret Clearance



## 2.1.2 Approach to Staffing the Needs Described in the SOW (Subcriterion 1.2)

*Our staffing policies ensure a full complement of committed personnel for sustained, reliable, and timely performance of all tasks. We also have the depth of resources to meet short-notice staffing needs that may occur.*

The ADC Team's approach to contract staffing emphasizes the selection and assignment of personnel who are matched to task requirements and will meet stringent standards for excellence. Our low turnover rates ensure that DOE-OAK will benefit from timely and reliable support from a dedicated contract staff.

### 2.1.2.1 Commitment

The ADC Team is fully committed to sustaining the high standards for staffing responsiveness and timeliness we have demonstrated in providing support services to DOE-OAK and other DOE offices for many years. We have readily available, qualified, and Q-cleared personnel who have hands-on experience with and understanding of the requirements of this contract and the mission of DOE-OAK. The complementary technical expertise of the ADC Team's personnel resources covers all task areas of the Statement of Work.

Because two members of the ADC Team, ADC and PAI, have performed this work for DOE-OAK, we have a real understanding of the specific staffing requirements. The ADC Team will have a fully qualified project staff available immediately upon notice of contract award. Most of our personnel already have the necessary security clearances, understand the DOE-OAK requirements and procedures, and are familiar with on-going DOE-OAK programs and missions. Some of these personnel have worked in these tasks for several years, so their capabilities are well known to DOE-OAK management and technical personnel. DOE-OAK will face no management, technical, schedule, or financial risks when the staff begins work on this new contract.

The performance record and resources of the ADC Team underscore our commitment and

#### The ADC Team Offers:

Strong base of technical talent with experience directly relevant to the DOE-OAK requirements.

Combined team pool of 615 personnel who are professionals in SOW task areas.

444 available DOE "Q" or "L" Cleared technical staff

For professional staff, average experience in the Statement of Work task areas of 15-20 years.

A firm corporate commitment that qualified technical staff will be available as needed to support DOE-OAK.

Low personnel turnover rates.

capabilities to meet all staffing requirements with qualified, dedicated personnel who will complete all tasks to meet schedule and budget objectives.

The ADC Team is also committed to effectively using our personnel resources to further our objective of supporting DOE-OAK in cost control. The multi-disciplinary expertise of many of our staff is a value-added benefit for DOE-OAK. We can provide cross-coverage of tasks and respond to short-term needs without



incurring additional costs.

Our staffing approach will enable us to respond with qualified personnel to DOE-OAK's ongoing and short-notice needs. Our responsiveness extends beyond the normal bounds of simply fulfilling requirements for DOE-OAK. Senior corporate management have been directly involved in this teaming effort for more than two years now; the success of this contract is important to all three companies. The ADC Team entered into this proposal effort with full commitment by all three companies to this contract and to DOE-OAK.

#### 2.1.2.2 Staffing Approach

Section 2.4, Task Plans and staffing assignments are the responsibility of our project management team, as we describe in detail in Section 2.4, Task Management. Our project management team is:

- Mr. Vito Magliano, Project Manager/Business Manager
- Ms. Sharon Ball, Program Analyst/Team Leader for Management/ Administrative Tasks
- Mr. George Mackanic, General Engineer and Team Leader for Environmental Safety and Health and Facility Operation
- Mr. Bill Kirby, Security Specialist and Team Leader for Safeguards and Security.

Our cross-disciplinary management approach enhances our capability to staff tasks effectively and to respond with flexibility to priority and short-notice needs. Many of our personnel are qualified to meet task requirements in several disciplines. This versatility maximizes our flexibility in meeting DOE-OAK requirements rapidly and economically. *We do not* hire staff to meet a single or short-term need if a qualified individual on staff can fulfill the assignment as part of his/her current position.

The Project Manager has overall authority for the selection and hiring of personnel, working with the management team in the hiring process.

Team Leaders will assign personnel and monitor the timeliness and quality of work within their task areas. Our management team will apply an integrated staffing approach, assigning the best qualified personnel for each task, regardless of the reporting chain of command. This approach will provide the flexibility demanded by the overall goals and objectives of DOE-OAK. Our capability to move expertise from one area to another is essential to supporting the mission of the current DOE-OAK organization and provides flexibility in staffing to support short-notice needs and fluctuating requirements in the demanding and changing environment of the integrated DOE complexes.

The ADC Team will work collaboratively with DOE-OAK to anticipate changes in staffing requirements and enhance our rapid response. Our Project Manager and Team Leaders will maintain an understanding of the needs of DOE-OAK and maintain 3-month and long-term staffing projections that enable us to plan ahead to meet future staffing requirements.

To ensure immediate responsiveness to anticipated and unexpected staffing requirements on all our contracts, ADC has developed and implemented an automated Resume Information System (RIS) to manage corporate human resources. The RIS is a database of scanned resumes and includes salient skills and qualifications of personnel available to ADC. It includes current employees, screened applicants, temporary employees and consultants. The RIS allows ADC to compile information on experienced personnel and quickly search for qualified candidates to fill contract vacancies or new positions. This regularly updated resource allows ADC to have a definitive scope of abilities and availability of fully qualified individuals. The RIS is a comprehensive management system of personnel resource information.



Like ADC, PAI and BDM have automated data bases for rapid identification of qualified personnel to meet staffing requirements. The collective resources of the ADC Team, coupled with our efficient human resource management systems, ensure that we will identify and assign qualified individuals to all DOE-OAK tasks.

ADC has also developed and implemented Rapid Job Posting (RJP), an automated method of posting job openings to maximize efficiency in initiating the job filling process. The RJP process allows ADC managers to electronically transmit job opening requirements to the Corporate Human Resources staff for immediate processing. It also electronically transmits job postings to ADC offices and recruitment agencies. This method permits the Human Resources staff to receive, process and post job openings rapidly and provides ADC with a management system for job-specific recruitment. The members of the ADC Team maintain ongoing recruitment by advertising in targeted major newspapers and professional publications nationwide, as well as placing listings with state employment offices and actively working with agencies and organizations specializing in job placements for people outside the employment responded within a week to DOE-SR's need mainstream to ensure active engagement of the principles of Affirmative Action and Equal Employment Opportunity.

Another significant source of applicants and new employees for both companies are referrals from current employees. All three teaming partners are proud that employees recommend their respective companies to colleagues and friends.

**Short-Notice and Priority Requirements.** The ADC Team knows that unexpected and urgent requirements can occur on a regular basis. We have the resources and commitment to respond effectively to DOE-OAK short-notice and priority requirements. We have frequently met such needs for our customers. Two examples of ADC's ability to deliver on this pledge follow.

- On the S&S contract, DOE-OAK tasked

ADC to assemble a 35-person, Q-cleared survey team with only two weeks notice. ADC assembled the necessary staff and they were ready to begin work by the scheduled date.

- DOE-AL was faced with the loss of contractor support for two key functions, the Personnel Security Vault and Visitor Control and Badge Office. ADC was approached by AL Contracts Office and asked to provide these vital services until such time a new contract could be negotiated. In less than 48 hours of the request the areas were fully operational and staffed with ADC personnel.

Our teaming partners have frequently demonstrated exceptional responsiveness in meeting unexpected staffing requirements for their clients.

- In 1991 there was an accidental release from the LLNL Tritium Facility. PAI received an urgent request for a Tritium expert on a Friday; the following Monday Dr. Jacober of PAI's Savannah River Office was on hand to assist with mitigation and explaining the relatively small risk to the public.
- PAI responded within a week to a request from DOE-SR for chemical experts for the "Red Oil" problem at SR's Radioisotope Separation facilities. A three-member work team reviewed the situation and reported to DOE-SR's satisfaction that controls were in place and were reinforced to avert recurrence.
- In 1991 BDM was tasked by DOE EM to assemble a multi-disciplinary team of technical and operations experts to conduct the Waste Isolation Pilot Project Operational Readiness Review (WIPP ORR). Within 12 days after receiving the request BDM had 30 hand-selected specialists on site in Carlsbad, NM, meeting DOE's deadline. The Team



successfully accomplished its ORR and delivered its report to the Secretary on time.

When faced with a short-notice requirement, our management team will evaluate two courses of action. First, they will examine the status of current task work to determine if present staff assignments can be modified to accommodate a short-notice requirement. If not, or if present staff are not qualified to fully meet the requirements, the ADC Team will look to its own staff on other sites and to our subcontractors or consultants. As shown in Exhibit 2.1-2, the three companies on the ADC Team offer DOE-OAK great depth in task-qualified, Q-cleared personnel. Our Project Manager has full authority to execute the steps necessary to fulfill a short-notice requirement, assuring technical responsiveness in a cost effective manner.

In addition to in-house personnel resources, all three companies maintain data bases of pre-screened and qualified candidates for employment. These data bases are a rich source of temporary, short-term, or replacement staff.

We also have extensive networks to locate personnel from consultants, supplementary staff, subcontractors on other contracts, and within the DOE community.

ADC, PAI, and BDM are fully committed to providing all needed personnel resources to meet the requirements of this contract.

There may be times when a DOE-OAK task staffing need is highly specialized and very few people are qualified to meet the skill requirements. When the right person is found, the qualifications and costs will be presented to DOE-OAK as part of the task response. It will then be DOE-OAK's decision to proceed, based on this information.

As with short-notice requests, the ADC Team will meet priority requests either through reassignment of current contract staff or

utilization of additional resources. Any cost impacts will be discussed with DOE-OAK management. There may be occasions when task priorities may be in conflict. In such cases we will provide DOE-OAK with the information needed to make an assessment and assign priority. The track record of the ADC Team at DOE-OAK and other DOE offices demonstrates that we can respond and perform under this scenario.

Another case that demonstrates ADC's ability to respond to short notice requirements was an urgent need for technical support to the Classification and Declassification staff at AL. When DOE Headquarters mandated review and declassification efforts were announced, AL was slated to play a key role in the process. They were required to provide support in the form of qualified personnel for this massive undertaking. ADC was asked to provide additional staff members for this unusual effort. Within one week two full qualified staff members were on site. The efforts of these technical experts enabled AL to meet their Headquarters levied suspense.

The effectiveness of our management systems and methodologies, including our staffing approach, has been demonstrated through outstanding performance on contracts with DOE and other Federal agencies. These systems and methodologies for planning and control are thoroughly described in Section 2.4 as well as in Volume III of this proposal. Our proven management techniques ensure that our performance on this contract will go well beyond meeting the minimal contractual obligations.



**Key Personnel.** The ADC Team has selected key personnel who are exceptionally well matched to the requirement of these positions. The key personnel are:

Mr. Vito Magliano, Project Manager

Ms. Norma Del Gaudio, Classified Document Control Center Task Manager

Mr. James Stuart, Physical Scientist

Each of these key personnel will devote 100 percent of his or her time to this project.

Our staffing plan also provides that all other full-time staff assigned to this contract will be available to meet their staffing assignments.

**Corporate Personnel Resources.** The on-site personnel resources of the ADC Team are backed by a large pool of subject matter experts

within each teaming partner's corporate staff.

Exhibit 2.1-2 summarizes the corporate resources available to augment contract personnel as needed in carrying out the work on this contract. All three members of the ADC Team are fully committed to making personnel available to short- or long-term assignments to meet contract requirements.

The DOE environment demands flexibility and real-time management of resources to meet unscheduled priority needs. As we have shown, our application of integrated management will ensure the most efficient assignment of personnel across all task areas and responsiveness to short-notice requirements. Our management team, with the full support of our corporate staff, will meet all DOE-OAK staffing needs efficiently. We are firmly committed to providing the best possible support to DOE-OAK's short-term and long-term objectives.

Exhibit 2.1-2  
Available ADC Team Staff  
Depth of Experience

	Number Of Staff Available	Number of Q/L Cleared Staff Available	Average Years of Experience				
			5	10	15	20	25
Program and Project Management	90	60					
Technical Studies	182	108					
Document Preparation	127	75					
ES&H and Facility Operations Support	125	84					
Safeguards & Security Technical Support	53	46					
Briefings & Reports	128	71					



## 2.2 TECHNICAL EXPERIENCE AND PAST PERFORMANCE

(Criterion 2)

*The ADC Team's experience and performance at DOE-OAK and our related experience at other DOE offices and facilities are convincing evidence of our qualifications and capabilities to perform all tasks to meet the highest expectations of DOE-OAK.*

ADC, PAI, and BDM have joined resources to offer the Department of Energy, Oakland Operations Office (DOE-OAK) the team that is the best choice to provide the support services required. The collective experience of the ADC Team spans all task areas in the Statement of Work. Our outstanding performance records are an indicator of the quality of service DOE-OAK will receive from the ADC Team.

### 2.2.1 Summary of ADC Team's Experience

The ADC Team presents unsurpassed expertise in the areas of DOE Safeguards and Security, Environmental Safety and Health, Facility Operations, Technical Studies, and the other support services required by DOE-OAK. The quality, reliability and timeliness of our performance on contracts for these and related tasks confirms our capability to meet the requirements of DOE-OAK.

A few of the features that set the experience of the ADC Team apart from the rest of the field are highlighted in the graphic below.

The direct knowledge of the work is a significant benefit the ADC Team offers DOE-OAK. ADC completed a five year contract at DOE-OAK for Safeguards and Security Technical Support Services; PAI is the incumbent contractor for Environmental Safety and Health. The DOE-OAK experience of these two companies encompasses most of the scope of required work. For the past several years, ADC and PAI have proven their capabilities to provide DOE-OAK with technical and managerial excellence. The addition of BDM to the capabilities of these two companies provides even greater experience in identical and similar work in the DOE environment.

The collective experience of ADC, PAI, and BDM spans all areas of the Statement of Work at contracts throughout the DOE complex, as shown in Exhibit 2.2-1 on the next page.

The table provides a sampling of relevant experiences; additional details on contract experience are included in the detailed experience description for each team member.

*The ADC Team offers unsurpassed corporate experience and the continuity of incumbency.*

- *DOE-OAK Experience.* ADC and PAI have provided DOE-OAK with the majority of the required services in the Statement of Work.
- All members of the ADC Team have successful and proven experience on DOE contracts related to all DOE-OAK statement of work task areas.
- Our Team has a comprehensive perspective and understanding of DOE-OAK's mission.



**Exhibit 2.2-1  
ADC Team's Experience in SOW Task Areas**

		SOW Requirements						
		Program/Project Management	Technical Studies	Document Preparation and Review	ES&H and Facility Operations Support	Safeguards & Security Technical Service	Briefings and Reports	Total Person-years
ADG	DOE - San Francisco Operations Office Safeguards and Security - DE-AC03-88SF17290	●	●	●		●	●	129
	DOE - San Francisco Operations Office Consulting Services - DE-AP03-91SF19161	●		●			●	.1
	DOE - Albuquerque Operations Office Safeguards & Security Tech Support DE-AC04-92AI 74199	●	●	●		●	●	80
	DOE - Rocky Flats Office Consulting Services - DE-AC34-92RF00460 DE-AP34-92RF0045	●	●	●			●	.1
	EG&G Idaho Consulting Services - PO# C-90103216		●	●				.2
	National Renewable Energy Laboratory (formerly SERI) Consulting Services - PO# B-0-49237-1		●	●		●		.1
	DOE - Bonneville Power Administration Administrative Support Services - DF-AC79-89BP00180	●		●			●	,500
	DOE - Bonneville Power Administration ADP Support Services - DE-AM79-89BP96545				●			44
	General Services Administration Systems Definition and Design - GS00K-91-A-ID-0500	●	●	●		●	●	14
PAI	DOE-OAK Operations Office Tech/Mngmt Support to AMFMS, AMDP, and AMNE - DE-AC03-90SF18504	●	●	●	●		●	15
	DOE-OR Operations Office Tech/Mngmt Support to DOE/OR and MMES - DE-AC05-88OR21794	●	●	●	●		●	180
	DOE-NV Operations Office Support to in ES&H and FRWM DE - AC08-89NV10793 DE-AC08-95NV11762	●	●	●	●		●	115
	Lockheed Martin Energy Systems, Inc. Safety Review	●	●	●	●	●	●	29
	DOE-RL Operations Office Support Services for ESH&OA Oversight Functions - DE-AC06-92RI 12088	●	●	●	●	●	●	13
	DOE-SR Operations Office Technical Support for AMFO-DOE-SR DE-AC09-SR18221	●	●	●	●		●	15
	DOE/WSSRAP Project Plan & Rvw, Tech Rvw, & Regulatory Rvw - DE-AC05-92OR22060	●	●	●	●		●	30
	Jacobs Engineering Group DOE-ORO Environ. Restoration Program Tech Support	●	●	●	●			
	DOE - Office of Environmental Management Technical Support Services - DE-AC01DP48063, DE-AC01-92EW30030	●	●	●	●		●	458
BDM	DOE - Office of Defense Waste and Transportation Management (DWTM) Technical Support Services DE-AC01-87DP-48042	●	●	●	●		●	54
	DOE - Office of Procurement Operations Safeguards and Security DE-AC01-87DP-30364 (Meridian, Prime) DE-AC01-93A-10043 (Meridian, prime)	●		●		●	●	190
	DOE - Office of Technology Development (EM-50) Technical Support Services - DE-AC01-93EW-00512 (WPI, Prime)	●	●	●	●		●	303
	DOE - Office of Planning and Resource Management (EM-10) Technical Support Services - DE-AC01-93EW-10279 (Coleman Research, prime)	●	●	●	●		●	109
	Systematic Management Services, Inc. Plutonium Recovery Program 87RF01, 87RF03		●	●	●		●	6



All three team members have extensive experience in performing multiple-task contracts. The ADC Team's proven capabilities, at DOE-OAK, at Headquarters and other DOE offices, and for other clients, conclusively demonstrate that we can successfully perform and manage this contract for DOE-OAK.

Each member of the ADC Team provides a singular depth of experience in as well as overall capability. The following sections briefly summarize our specific experience in each of the SOW Task Areas. Section 2.2.2 briefly describes the corporate capabilities of each team member and provides, for each team member, detailed descriptions of contracts for similar work.

### **Program and Project Management**

The ADC Team's experience in Program and Project Management demonstrates our capability to provide efficient programmatic support which is grounded in an understanding of DOE missions, programs, and initiatives. Each company has successfully managed projects and provided management support to DOE offices.

ADC staff, as well as the company, have many years of program and project management experience. This expertise is exercised every day within the company and at client sites to ensure our staff successfully fulfill assigned tasks. Programs within the S&S arena are management-intensive to achieve desired results, and ADC has the managerial expertise to be an effective prime contractor, coordinating and directing all work on this contract.

ADC has provided management support to DOE in Oakland, Albuquerque, Rocky Flats, Bonneville Power Administration, EG&G Idaho, National Renewables Energy Lab. Examples of this effort include:

Program and project management support for the DOE-Oakland Operations Office for the Safeguards and Security Division involved in all aspects in a multi-discipline, multi-task environment. The TSCM Program, for

example, was developed and successfully implemented by experts in this field

- Program and project management support for the DOE-Albuquerque Operations Office for the Safeguards and Security Program which is directed by three different divisions under two different Assistant Managers. This total program is a complex management effort in a multi-discipline, multi-task environment.
- Support for Business Systems Reviews has been provided to DOE-Rocky Flats Office. Program management required a capability for providing an overall view of issues relating to the M&O contractors. Strategic planning was an important element of the successful review.

PAI has provided substantial management support to DOE in Oak Ridge, Nevada, Savannah River, and Weldon Spring. A few representative examples include:

- Support and oversight for development of a project management system for WSSRAP that complied with applicable DOE orders
- Preparation of Congressional budget requests for Weldon Spring Site Remedial Action Project (WSSRAP); tracking changes to the budget requests and generating impact studies for alternative funding scenarios; coordinating annual reviews of the WSSRAP funding requests by outside groups such as the DOE Office of Procurement and Inspector General, the Corps of Engineers, and the Office of Management and Budget
- Assistance in the review and update of Activity Data Sheets for DOE-Oak Ridge EM programs
- Generation of plans and reports for DOE required under 4700.1, such as project management plan, work breakdown structures, and automated tracking systems which integrate WBS milestones and graphics such as Gantt charts to facilitate monitoring of project progress



## Technical Studies

The ADC Team has provided our clients nationwide with support in Technical Studies on a spectrum of topics that matches the requirements of the Statement of Work.

PAI has specialized experience in CERCLA and NEPA documentation and other environmental studies. The PAI Deliverables Tracking System indicates production of more than 40 such deliverables in the last three years. Selected examples of deliverables relevant to DOE-OAK requirements include:

- Mound Plant Decontamination and Decommissioning (D&D) - Environmental Assessment (EA) and Finding of No Significant Impact
- Review of Integration of NEPA, CERCLA, and RCRA for Activities Under the Interagency Agreement at the Rocky Flats Plant
- Review of NEPA documentation at the Kansas City Plant
- Review Comments on Categorical Exclusion under DOE NEPA Guidelines, Fire Safety Upgrades to LLNL Facilities

By conducting a large number of projects for DOE and other Federal agencies, BDM has acquired extensive experience in both environmental and construction management and technical studies. These projects have involved efforts on behalf of clients who operate under the provisions of a variety of federal statutes, agency requirements, and state and local regulations. The nature of these projects encompasses such diverse actions as: technical review of facility siting and construction design plans; evaluation of RDDT&E activities related to innovative environmental compliance, restoration and pollution prevention technologies; construction and environmental cost analysis and estimation; compliance, long-range, strategic and site development planning; program assessments; technical support in environmental engineering;

budgetary validations and data management assessments; and Quality Assurance plans and procedures development.

BDM's relevant DOE-related experience in technical studies includes:

- Cost review, cost estimates, cost verifications, and cost validations on 2,000+ Activity Data Sheets (ADSs) that comprise the multi-billion dollar annual DOE waste management program
- Supported scope, cost, and schedule baselines development for the top twenty DOE constructions over \$100 million. Includes development of management systems covering the 166 line items and 9 operating expense projects being managed in 1993
- Reviewed and analyzed EM baseline change control proposals for line item projects in order to evaluate adequacy of justification
- Developed the Progress Tracking System (PTS) to collect and assess EM-wide Field Office monthly reports for each Activity Data Sheet (ADS). The program communicates EM progress and accomplishments and is linked with the DOE controller's Financial Information System (FIS).
- Developed the Planning, Budget, and Control System (PB&C), which collects all ADSs from Field Offices for Headquarters review, edit, and approval
- Provided technical studies in support of EM to include technical assessment, environmental evaluation, evaluation of cost and schedule options, budget assessments, and FOIA reviews

## Document Preparation and Review

In carrying out work at DOE-OAK, ADC has researched, reviewed, and prepared numerous



technical documents and reports. From June 1988 to June 1993, ADC conducted 123 Physical Security Surveys, averaging four per month. ADC has also conducted 18 MC&A audits, inspections, and surveys of DOE-OAK contractor facilities and more than 400 TSCM activities over the span of the contract. ADC has prepared appropriate reports and documentation for all these activities.

ADC's personnel security support at DOE-OAK, which included word processing and transcription, produced more than 100,000 pages of material in direct support to DOE-OAK. Classified Document Control Center activities during a three year period have encompassed processing of more than 10,000 documents for DOE-OAK; actions have included reproduction, distribution, mailing, and inventory control.

The experience of PAI in reviewing documentation for DOE is extensive. The PAI Deliverable Tracking System lists more than 380 technical documents that PAI has reviewed for DOE clients in Oak Ridge, Nevada, Albuquerque, Rocky Flats, Savannah River, Richland, and Oakland, many of which encompass ES&H work similar to the requirements of DOE-OAK. PAI has also completed reviews of approximately 40 documents related to facility safety.

#### **Environmental Safety and Health and Facility Operations Support**

ADC has supported clients with development of information systems related to environmental safety and health. For the DOE-Bonneville Power Administration, ADC developed and implemented a Hazardous Materials Database and a PCB Tracking System.

PAI's experience in ES&H and Facility Operations Support is one of the strengths of the ADC Team. PAI has provided support to DOE nationwide in developing Quality Program Plans (QPPs), Quality Implementing Procedures (QIPs), Operational Readiness Reviews (ORRs), management appraisals, multi-functional appraisals, Tiger Team appraisals, technical safety appraisals, conduct-of-operations reviews (CONOPS), self-assessments,

and audits. Many of these appraisals have been large efforts involving teams of three to twenty professionals and requiring detailed planning months in advance. PAI has more than twenty senior managers who are NQA-1 certified, CQE certified, or P.E.s; in addition, each individual has more than fifteen years of experience in project management. PAI has also developed numerous lines of inquiry and checklists for DOE in multi-functional appraisals.

BDM provides a full range of technical and management support to DOE ES&H programs and activities within the Office of Waste Management (EM-30) and the Office of Environmental Restoration and Waste Management (EM). These activities include: radiation protection, health physics, emergency response, occupational safety and health, safety analysis guidance, standards interpretation and implementation, procedure development and review, transportation of radioactive materials, and other requirements as they occur.

BDM has played a key role in the coordination and development of EM-30 input to the EM Five-Year Safety and Health Plan, provided primary technical support to the EM-30 member of the EM Safety and Health Steering Group, provided staff support for the Working Group addressing issues raised by the Office of Technology Assessment Report "Hazards Ahead," provided technical members for Technical Review Teams reviewing implementation for the upgrade of Safety Analysis Reports (SARs) and Technical Safety Reviews (TSRs), developed proposed standard operating and QA procedures, assisted in resolution of technical issues associated with the shipment of radioactive materials, assisted in the implementation of the DOE Radiation Control Manual, monitored activities of the Defense Nuclear Facilities Safety Board, and reviewed and commented on DOE Safety and Health-related Orders, procedures and guidance.

#### **Safeguards and Security Technical Services**

The combined experience of the ADC Team at the DOE program operational level for Safeguards and



Security is unparalleled. Our Team is fully conversant in all Safeguards and Security program areas.

ADC was the contractor for safeguards and security technical services at DOE-OAK and provided support services for five years. ADC's support encompassed:

- Safeguards and Security surveys and related services
- Material Control and Accountability surveys and administration
- Technical Surveillance Countermeasures program support, including other Information Security disciplines
- Personnel Security support services
- Project Management and other professional and administrative support

As part of this effort, ADC established a Class C Facility one-quarter mile from Lawrence Livermore National Laboratory to support the technical security program disciplines. As another example, ADC provided quality assurance engineering consulting to EG&G Idaho for the conduct of an Operational Readiness Review (ORR) at Stanford Synchrotron Radiation Laboratory. As part of other contracts, ADC performs vulnerability assessments, risk analyses, compliance audits, security tests and evaluation, and software security certification. ADC also provides security programs planning, implementation, and training for total computer systems and facilities.

ADC is currently providing Safeguards and Security Technical Support Services under a \$29 million contract with DOE-AL.

Specific task areas include:

- Safeguards and Security surveys of DOE and Contractor sites
- Technical, managerial, and administrative services related to the S & S Program
- Support for personnel security

- Program management and administrative support

Within the scope of work of a contract with General Services Administration for Systems Definition and Design in the Pacific Zone, ADC has performed computer vulnerability assessments, risk analysis, and computer security program tasks for a variety of Federal agencies.

BDM also has exceptional qualifications and experience in Safeguards and Security. The BDM Safeguards and Security Program Directorate was established in 1987 to support the DOE's Office of Safeguards and Security. This Directorate has also provides security support to other DOE offices such as Environmental Restoration and Waste Management and Domestic and International Energy Policy, as well as the U.S. Department of Defense and the U.S. Department of State.

BDM's experience encompasses physical security, computer security, information security, technical security, operations security, and personnel security.

BDM has assisted in the conduct and assessment of more than 30 DOE program offices to determine the adequacy of existing physical security protection systems and security procedures. BDM has developed and implemented automated classified document inventory and tracking systems and trained personnel. BDM has also conducted vulnerability assessments, analyzed these assessments, and provided recommendations and tracking systems for corrective actions. A significant accomplishment was assisting in the development of a revised Departmental design basis threat which has been implemented throughout DOE.

At the DOE Germantown facility, BDM provided support for development of the master Automated Data Processing security plan; other computer security experience was development, installation, and implementation of the Automated Office Support System within the DOE's Office of Safeguards and Security. BDM participated heavily in supporting DOE participation in the



National Industrial Security Program (NISP), assisting in preparing key elements of the NISP Operations Manual as a participant in the Physical Security Working Group. Other experience in Information Security includes development of procedures and automated systems for the protection and control of classified documents and materials and development of a comprehensive training program for DOE organizational elements which encompasses document control procedures, markings, transmission, and destruction procedures.

BDM directly supports the DOE Technical Security Countermeasures Program Manager; part of this support includes the development and implementation of the Threat Assessment Scheduling System. BDM security professionals have prepared, organized, and perform Operations Security assessments and surveys for DOE and DOD clients; several BDM staff members have served on the Operational Security (OPSEC) staff of the Joint Chiefs of Staff, assisted in the development of the National Security Decision Directive, and have been members of the National OPSEC Advisory Committee.

In personnel security work for DOE, BDM has developed automated tracking systems for:

- tracking badging systems and credentials
- personnel security reinvestigation programs
- automated history personnel security files (required the entry of over 50,000 personnel security case files)
- personnel security clearance status (comprehensive and cost effective means to track status, current training, and base expiration data)

### **Briefings and Reports**

The ADC Team maintains an expert capability in administrative support within the corporate structure as well as for our clients. The ADC Team's technical personnel are experienced in presenting briefing and preparing reports for a wide variety of audiences on contracts with DOE. The ADC Team's contracts for the experience described in the preceding sections required

administrative support in preparation of briefings and reports for the diverse tasks described.

For example, as previously mentioned, ADC has produced more than 100,000 pages of material in direct support of the personnel security function at DOE-OAK and processed more than 10,000 documents at the Classified Document Control Center.

ADC's administrative personnel have demonstrated their capabilities in preparing briefings using their own creativity to suggest enhancements for presentations while following established policies. They maintain calendars and design computer tracking systems. They also provide general office support for task activities.

On all contracts ADC provides timely, accurate, and comprehensive reports on task performance and management to our customers.



### 2.2.2 Related Experience and Capabilities of the ADC Team

The following sections present a brief profile of each company and detailed information on their successful experience on multiple task contracts for work similar or identical to the DOE-OAK Statement of Work.



### 2.2.2.1 ADC's Corporate Capabilities and Experience

ADC is a dynamic company dedicated to providing the highest quality services to government agencies and firms in the private sector. ADC's corporate objectives are to meet the needs of our clients with timely, professional, and cost-efficient services. ADC offers a full range of services including:

- Safeguards and Security program management
- Information systems engineering and integration
- Computer facilities management and operation
- Technical support services
- Administrative support services

ADC's growth has been fueled by our corporate commitment to quality, integrity and customer satisfaction.

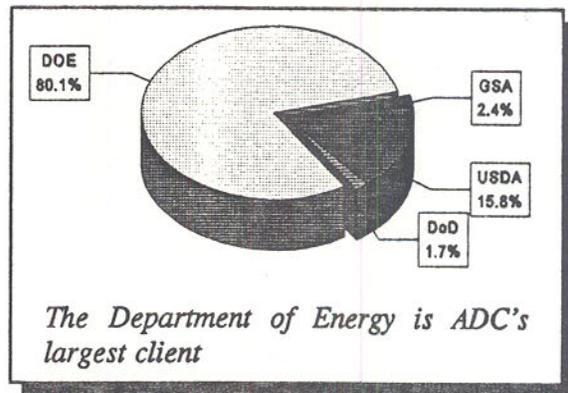
As a provider of technical services, ADC stands out from its competitors by the factors that have played a role in its success:

- Quality of service
- Integrity
- Commitment to customer satisfaction
- Technical expertise of staff
- Forming a partnership with our customer to achieve excellence

ADC's unique ability to provide best value services in Safeguards and Security is recognized by the ADC corporate business plan, which identifies this business line as a catalyst for ADC's future growth. This contract with DOE-OAK is very important to ADC. Our corporate resources are dedicated to enhancing the Safeguards and Security business line by providing excellent service and added value to all our clients.

Nineteen of our safeguards and security staff hold active DOE "Q" clearances; six hold an "L" clearance. DOE Contracts vary from short-term consulting arrangements to large multi-task

support service contracts with total values in excess of \$41 million. The Department of Energy is ADC's single largest client, as shown by the graphic below.



ADC is the recipient of several prestigious awards for outstanding performance from the Small Business Administration, the U. S. Department of Agriculture, and the Federal Executive Board of Oregon.

DOE-OAK can be assured that ADC, as prime contractor, will deliver the high standard of performance and excellence on which our customers have come to rely.

Exhibit 2.2-2 on the following page summarizes ADC's similar work for the DOE, other Government Agencies, and private industry. Following the table are detailed descriptions of the work performed on each contract.



**Exhibit 2.2-2  
ADC's Relevant Prime Contract Experience**

Agency	Contract Number and Title	Dollar Amount	Type of Contract	Period of Performance	Types of Services Performed	Contact
U.S. Dept. of Energy San Francisco Operations Office 1301 Clay Street, 700 N Oakland, CA 94612	DE-AC03-88SF17290 Safeguards and Security ADC: Prime Contractor	\$11.3M	CPFF	6/88 - 6/93	Material Control & Accountability Technical Surveillance Countermeasures Safeguards and Security Surveys Personnel Security Support Services Project Management Classified Document Control Center	Doug Ash (510) 637-1798 Sadie Kiel (510) 637-1884
U.S. Dept. of Energy San Francisco Operations Office (See above)	DE-AP03-91SF19161 Consulting Services ADC: Prime Contractor	\$9K	CPFF	9/91 - 11/91	Consulting Services in Preparation for HQ Review of Contractor Business Systems Review	Doug Ash (510) 637-1798 Sadie Kiel (510) 637-188
U.S. Dept. of Energy Albuquerque Operations Office P.O. Box 5400 Albuquerque, NM 87185	DE-AC04-93AL74199 Administration and Technical Safeguards and Security Support Services ADC: Prime Contractor	\$29.8M	CPFF	9/93 - 9/98	Safeguards and Security S&S Surveys Technical, Managerial and Administrative Support Document Preparation and Review	Sam Espinosa (505) 845-4085 Judy McGurn (505) 845-5547
Rocky Flats Office P.O. Box 928, Highway 92 Rocky Flats, CO 80402	DE-AP03-92RF00455 Consulting Services ADC: Prime Contractor	\$9K	CPFF	6/92 - 8/92	Business Systems Review	Terry Vaeth (702) 295-3211
Rocky Flats Office P.O. Box 928, Highway 92 Rocky Flats, CO 80402	DE-AC34-92RF00460 Consulting Services ADC: Prime Contractor	\$9K	CPFF	8/92 - Open	Strategic Planning for Business Systems and Transition	Terry Vaeth (702) 295-321
Bonneville Power Administration 905 NE 11th Avenue Portland, OR 97232	DE-AC79-89BP00180 Administrative Support Services ADC: Prime Contractor	\$46M	CPFF	5/89 - 5/94	Document Preparation Data Entry Technical and Clerical Support Engineering Support Publications Warehouse	Pete Jenkins (503) 230-3603
Bonneville Power Administration 905 NE 11th Avenue Portland, OR 97232	DE-AM79-89BP96575 Applications Programming and Maintenance ADC: Prime Contractor	\$2.3M	T&M	10/88 - 9/92	Applications Programming and Systems Development	Pete Jenkins (503) 230-3603
General Services Administration 525 Market Street San Francisco, CA 94105	GS00K-91-AJD-0500 Systems Definition and Design in the Pacific Zone ADC: Prime Contractor	\$11M	CPFF	11/90 - 11/94	Systems Definition and Design Computer Security	Ron Heald (310) 373-1948
EG&G Idaho Idaho Falls, ID	C-901003216 Purchase Order ADC: Prime Contractor	\$18K	Cost Level of Effort	1/90 - 11/91	QA Engineering at Stanford Synchrotron Radiation Laboratory	Alan Lords (208) 526-1269
National Renewable Energy Lab 1617 Cole Blvd. Golden, CO 80401	B-0-49237-1 Purchase Order ADC: Prime Contractor	\$10K	Level of Effort	7/90 - 9/90	Physical Security Consulting	Bob O'Doherty (303) 231-1251



**Client:** U.S. Department of Energy  
Oakland Operations Office  
1301 Clay Street, 700 N  
Oakland, CA 94612

**Contract No.** DE-AC03-88SF17290

**Safeguards and Security Support Services**

ADC was responsible for six task areas and provided the staff to support these tasks:

- Safeguards and Security Surveys and Related Services
- Technical Surveillance Countermeasures (TSCM) - Information Security
- Personnel Security Support Services
- Project Management and Administrative Support
- Classified Document Control Center

This contract required acquisition and maintenance of a DOE-approved classified facility. ADC's facility in Livermore supplied office space for the physical and technical security staff and warehouse space for equipment used for the TSCM work.

**Safeguards and Security Survey Support Services**

ADC developed an annual schedule of surveys and inspections which identified proposed resources as part of the site-specific survey plan that was required by DOE Order 5632.1B. The plan was updated on a quarterly basis.

ADC prepared test plans and schedules, conducted briefings, reviewed all reference material (to include prior findings) and performed other activities required prior to the start of a scheduled survey. ADC also prepared and coordinated draft and final survey reports.

ADC provided technical support to DOE-OAK staff in the assessment of security systems at contractor sites to determine the adequacy of the security systems and their conformance to DOE requirements. Surveys were performed in accordance with the Standards and Criteria and all applicable DOE Orders, Inspection Guides, etc. for the topical areas. ADC reviewed security plans and other site-specific documents and provided technical support in all topical categories required to verify and validate survey findings at critical locations.

ADC researched and prepared worksheets for the S&S Compliance Self-Assessment (CSA) project. ADC maintained the technical reference center; updated the classified computer system for Headquarters reporting; worked with DOE counterparts to verify CSA compliance and non-compliance statements; prepared the corrective action plan; and coordinated with the M&O contractors.

Another responsibility was conducting no-notice and prior-notice random inspections of programs and/or facilities, program analyses, performance exercises (such as Limited Scope Performance Tests), and emergency operations exercises to ascertain the performance level and/or compliance with the approved Master Safeguards and Security Agreements (MSSAs) or security plans.

ADC provided protective force management: technical reviews of plans and post orders, special reviews, training planning, performance testing. Performance testing ranged from force-on-force, limited scope, alarm response and assessment,



emergency management, access and search control.

ADC's subject matter experts planned and conducted vulnerability analyses (VA) and risk assessments using approved modeling tools. We performed validation of MSSAs, Safe Safeguards and Security Plans (SSSPs), and other site specific actions.

ADC prepared and coordinated the DOE-OAK oversight plan of LLNL, preparing the applicable operations manual. Requirements, strategy, priorities, activities schedule, management plans, and reporting requirements were determined.

ADC prepared an internal appraisal program to measure the effectiveness of M&O facilities S&S policies and procedures and assured that systems were in place to meet identified protection needs required by DOE. ADC also provided a management tool to measure the effectiveness of the S&S oversight program by topical areas.

ADC prepared, planned, and conducted Cost Effectiveness Reviews (CER) to evaluate existing S&S policies, as well as the measures used to protect DOE security interests, identifying alternative measures for possible selection and further analysis to achieve greater cost effectiveness.

Another task performed by ADC was input to the S&S Information Management Systems (SSIMS).

#### **Material Control & Accountability (MC&A) Surveys**

ADC provided technical support (auditor, physical scientists, financial experts) for the conduct of MC&A surveys of LLNL and other M&O contractors to provide data for use by DOE in its determination of the adequacy of MC&A systems and conformance to DOE requirements.

ADC prepared the Annual Survey Schedule/ Plan identifying quarterly requirements and updates, and provided nuclear materials administrative and audit support services, such as:

- 1) Auditing contractor nuclear material reports on inventories and assurance that it is balanced with DOE Nuclear Materials Management and Safeguards System (NMMSS).
- 2) Reviewing and auditing 16-year nuclear needs forecast data provided to DOE Headquarters for accuracy; coordinate with Program staff, contractors and DOE Headquarters; recommend final contractor allotments for DOE determination; maintain allotment control records.
- 3) Preparing required reports on Strategic Special Nuclear Material Inventory Differences and other miscellaneous reports required by DOE Headquarters.

#### **Technical Surveillance Countermeasures (TSCM)**

ADC performed surveys, inspections, and threat briefings, and provided pre-construction advice and assistance, and other technical security services as identified in the TSCM Program Guidance documentation. ADC provided these services from our own DOE-approved contractor facility.

ADC prepared the annual schedule of sites to be surveyed, using the Threat Assessment Scheduling System.

ADC developed a program to manage the assigned TSCM equipment to ensure adequate protection from loss, damage, or compromise. ADC also developed a preventive maintenance program was developed to ensure that the program equipment was operational, available, and up to technical specifications as well as a bench stock program for ready availability of spare parts. ADC identified and formally documented the current and projected equipment needs to support the TSCM Program, including identification of the proper level of funding for future program needs.



ADC provided DOE-approved space to house DOE special equipment at our site. We also provided a light duty vehicle to carry heavy equipment to and from TSCM Services and purchased DOE-approved equipment for the TSCM program.

ADC also provided trained technical administrative support to maintain the classified records for the TSCM operation and ensure physical security compliance for housing such a team. ADC provided derivative classification support when required.

#### **Personnel Security**

ADC's Personnel Security Analyst analyzed security information for all personnel management actions, evaluate derogatory information and made recommendations to DOE. ADC performed systematic analyses of Personnel Security Files as required by DOE Order, directives, Title 10 CFR 710, to resolve questions concerning an individual's initial or continued eligibility for DOE Access Authorization.

ADC prepared documentation and transcripts of interviews and Statements of Charges, and testified at hearings, as required.

ADC conducted professional training relating to Conduct of Interviews, Conduct of Hearings, preparation of case material for the Administrative Review process, and How to be an Expert Witness.

Visitor support included controlling and processing requests for classified visits; review of files and host reports; coordination and tracking of visit requests; updating and reviewing of Classified Visit Control System data bases; and review of foreign travel requests.

ADC also provided personnel security administrative support for activities such as the initial processing of QSPs; badging and handcar/other credentials; and management and control of the Personnel Security Vault.

Other administrative activities included: Data entry for the local personnel security system; processing of all actions required to support the Administrative Review process; scheduling psychiatric exams and transcribe evaluations; and providing all transcription and word processing services.

#### **Project Management**

ADC provided project management and management support services for assigned safeguards and security tasks. The Project Manager was responsible for the control and performance of all aspects of the work conducted; subcontract and consultant administration, resource planning, budget control, DOE reporting, and determination of conflict of interest. The Office Administrator provided management-related support to execute the tasking and track information required to manage and control the project.

ADC staff reviewed draft orders and other documents, provided comments and recommendations, and prepared impact statements based on those reviews.

#### **Classified Document Control Center Operations and Management**

Within this task area, ADC supported the Security Education Program by preparing briefing scripts, bulletins, presentation material and other related briefing material and developing and maintaining the database logs and supporting documents to accurately record the activity within the program. Briefings included Reassignment/Termination, Foreign Travel, Handcarry, Initial, Comprehensive, and Refresher.

ADC conducted all processing activities related to foreign visits and assignments, including data entry and generation of required reports and performed pre-visit surveys or walk-throughs to determine specified safeguards were in place and effective for foreign national visits.



ADC staff were also responsible for conducting those activities required to control and handle classified documents and material which are part of the Classified Document Control Center. For example, ADC prepared a quarterly audit plan for inventory of custodians using statistical sampling or a 100% inventory. ADC also prepared the 100% inventory plan, conducted the inventory, and prepared the resultant report.

### **Information Security**

ADC provided assistance to DOE Headquarters in the implementation of the National Industrial Security Program (NISP). ADC wrote and staffed DOE policy and procedures that represented changes which must take place within DOE to fully implement NISP. This initiative supports the development of a single, integrated, cohesive industrial security program to protect classified information provided to industry in the performance of contracts and to preserve national security, economic, and technological interests.

### **Major Accomplishments Under This Contract:**

**Safeguards and Security Surveys and Related Services.** ADC was the driving force in bringing the physical security survey program from an unsatisfactory condition to a satisfactory rated area. ADC's efforts included assessing which contractors had current contracts, deleting those who no longer had a DOE interest; publishing an annual survey plan; assuring that all surveys were current and final reports on file; and streamlining the Class A survey of LLNL from the use of massive numbers of people once a year to a year-round management effort using a small verification and validation team that focused the inspection effort towards those topical areas that are identified as deficient during the year-round process. As a result, the contractor team size was reduced from 56 people in 1990 to 8 in 1993, a significant gain in cost and efficiency.

ADC initiated a program to provide plans for "reducing security control envelope" through consolidation and other cost-effective concepts in management oversight and control. As a result, there were direct monetary savings at several contractor facilities.

ADC developed a Safeguards and Security Survey Guide to standardize the inspection criteria and methodology within the Operations Office. The document received laudatory comments during the recent short-notice Inspection and Evaluation (I&E) conducted at the Operations Office. This Guide provides the user a set of comprehensive questions and answers to determine if the facility being surveyed is meeting the intent of DOE security requirements.

ADC instituted a short-notice/continuous inspection process across all topical areas. This activity takes a "snap shot in time" look at the selected topical area. This process results in a focused annual survey of M&O facilities based on those areas where problems have been discovered between annual surveys.

**Material Control and Accountability.** ADC was instrumental in Oakland's transitioning to the Fund 52 program. An ADC staff member was selected to teach MC&A Administrative management at the Central Training Academy. ADC staff worked closely with DOE and LLNL staff to address long-standing findings by developing a corrective action plan and implementation schedule.

**Technical Surveillance Counter Measures (TSCM) - Information Security.** ADC established the (TSCM) program for DOE-OAK. The program moved from an unsatisfactory condition to a satisfactory one in 12 months. This achievement required establishing requirements from a zero baseline -- including procuring equipment, vulnerability tracking, establishing a data base of operations -- and bringing the TSCM program into full compliance in 1992 with Departmental and Intelligence directives. This program was recognized by DOE Headquarters Program Manager to the extent that the ADC TSCM Team was tasked to review the revised



program was recognized by DOE Headquarters Program Manager to the extent that the ADC TSCM Team was tasked to review the revised Operations and Procedural Manual for the Department prior to implementation within the department. This is the only field element review being conducted of this policy document.

ADC's TSCM personnel played a significant role in the development of the DOE HQ's TSCM Regionalization Initiative. ADC provided expert analysis, offering alternative solutions to the concerns and comments of DOE Operations Offices. Based on this input from ADC, the initiative has been rewritten and procedures have been established to implement this initiative with a far greater cost savings than originally anticipated: Estimated savings in the Western Region will exceed the Headquarters' estimate by \$2.5 million.

ADC staff participated in the DOE Headquarters program to assess the effect of NISP on DOE policies and procedures. They performed reviews and revised programmatic guidance for the field.

**Personnel Security.** ADC was instrumental in implementing a bar code system for the Personnel Security Vault. This was part of the "smart and effective" processes which contributed to a satisfactory rating of the control of the contents of this vault. The ADC survey team did a root cause analysis and presented a plan to DOE-OAK in which to review the system's shortcomings. Benefits of the new system are the capability to locate any file without time-intensive manual searches and the capability to search by various key fields to determine the status of a case file during the adjudication process.

ADC's Administrative Review/Hearing team of highly competent attorneys and court recorders (Q-cleared), and our administrative control made a significant contribution to the reduction of Hearing backlog at the Operations Office. This team not only reduced the cost of each hearing and increased the acceptance of the results, but also achieved a significant cost savings to the DOE by reducing the adjudication time.

**Project Management.** ADC developed computer tracking systems to ensure the quality and timeliness of deliverables, wrote Standard Operating Procedures and desk procedures, and provided training and cross-training of staff for more effective deployment for special assignments. Cost savings were realized by avoiding travel expense for outside assistance.

**Classified Document Control.** Based on a one week official notification, ADC was given the task responsibility for the Classified Document Control Center. The CDCC was in an unsatisfactory condition, staffed with people who were not sufficiently trained in the conduct and operations of the CDCC. The operation earned a Satisfactory rating with laudatory comments within two years under ADC's guidance and responsibility.

ADC instituted an Information Security Education Program and conducted the training for document custodians, mail room employees, guard force personnel, management, and staff who generate classified material.

ADC wrote and established the Standard Operating Procedures and Desk Procedures for utilization by all personnel exposed to classified material.



**Client:** U.S Department of Energy  
Oakland Operations Office  
1301 Clay Street, 700 N  
Oakland, CA 94612

**Contract No.:** DE-AP03-91SF19161

**Consulting Services to DOE-OAK (in Preparation for HQ/CBSR of OAK and LLNL)**

An ADC Senior Management Specialist served as a consultant, providing expert advice and assistance to senior management and staff of the Department of Energy's Oakland Operation Office (DOE-OAK) in preparation for a Contractor Business Systems Review (CBSR) by DOE Headquarters. The CBSR took place at DOE-OAK and Lawrence Livermore National Laboratory (LLNL).

ADC's Specialist focused on three specific task areas. He prepared critiques and reviewed preparation materials and advance planning

documents. He reviewed self-assessment inputs and draft summary self-assessment documents at the DOE-OAK macro level and at review sub-levels as defined by the lead person of the CBSR preparation team. He also facilitated discussion forums with various DOE-OAK groups (executive staff, senior managers, etc.) on topics including research and development, business management, oversight, and roles and responsibilities.

The project necessitated continuous interaction with DOE-OAK senior management, from the Assistant Manager level up.



**Client:** U.S. Department of Energy  
Albuquerque Operations Office

**Contract No.** DE-AC04-92AL74199

**Safeguards and Security Technical Support Services**

Under this contract, ADC provides administrative and technical Safeguards and Security (S&S) support services to assist the Security and Nuclear Safeguards Division (SNSD), the Personnel Security Division (PSD), and the Property and Administrative Services Division (PASD) in the implementation of DOE-AL S&S programs.

This contract consists of four task areas, each of which is described in detail in the following text:

- Safeguards and Security Surveys of other DOE and Contractor sites.
- On-site technical, managerial and administrative services related to the S&S program.
- Technical, managerial, and administrative support services for personnel security.
- Technical, managerial and administrative support services for DOE-AL internal security.

**Site surveys.** ADC develops, schedules, manages, and conducts compliance reviews, evaluations and inspections of the Safeguards & Security programs for facilities under the cognizance of the Albuquerque Operations Office. Sites include Kansas City, Sandia National Laboratory, Los Alamos National Laboratory, and the Pantex Plant, as well as numerous contractor sites and facilities.

Among the topical areas for which ADC reviews compliance are Information Security, Computer Security, Material Control & Accountability, Protection Program Operations, and Program Management. ADC prepares reports and briefings to present findings and makes recommendations for improvements and correction of deficiencies. Surveys

also address compliance with information and computer security standards, requirements, and orders.

Specific tasks for which ADC is responsible:

- Budget, track costs of surveys, arrange for qualified inspectors: travel, pay, conflict of interest, resumes.
- Survey member training: copy of Guides, brief on guide and their responsibilities, findings from SSIMS, survey methodology, advise inspectors of DOE Team Leader or Branch Chief requests.
- Assure development of survey plan: subtopical areas and areas as directed by DOE Team Leader or Branch Chiefs, assist DOE Team Leaders correct documentation of survey findings, review and supervise write-ups for survey report.
- Conduct survey: assure that inspectors meet survey schedule, assist DOE Team leaders prepare draft survey report and closeout document, supervise: discipline or correct inspectors, fill-in as inspector or arrange for replacements, maintain daily records of hours worked by inspector.
- Close out: conduct review of topical areas assigned, consolidate all inspector inputs and formulate final draft prior to closeout, prepare view graphs for Class "A" facility, write survey findings, write draft portion of survey report, participate in working closeout, work with DOE survey team leader to produce final survey report, assure that all materials (including



classified) are appropriately packaged for return to SNSD/AL after close of survey.

- Review and Develop PLANS: TSCM; TEMPEST; Protective Force Plans; S&S Training; Safeguards Program Management & Planning; MC&A Programs including: Procedural Directives, Performance Testing, Accountability Programs, Measurement, Material Control, Inventory, Administrative Control; SNM portal detection; and MSSAs/SSSPs.

Review and Develop DOCUMENTATION: MC&A programs, SNM Waste Monitoring, Material Surveillance; MBA/MAA Structures; and Site Specific S&S Plans.

**INFORMATION SYSTEMS:** maintain Master Facility Register for survey, develop program-specific information management data bases, develop and maintain status of MC&A survey findings and provide necessary input to the S&S Information Management System, review and evaluate NMMSS reporting activities, troubleshoot and develop enhanced MC&A Survey Procedures, conduct or assist in special inventories of nuclear materials, chemical processes and nuclear material hold-up.

- Assist in preparation, review, copying and distribution of correspondence, reports, monthly activity reports, and management briefings, etc.
- Develop and maintain administrative system: data bases - SSIMS, FDAR, Master Facility Register, NATO Access Program Data Base, and security infraction reports; up-to-date copies of procedures, cost account forms, develop, review and organize files, develop accountability program reports, 100% inventory of classified documents.
- Other duties: maintain Low Cost Storage Program, control access to work areas, perform security locker and monitor duties, make travel arrangements, control access to work areas, perform dictation, process security infraction reports, process request for access to classified

NATO information, retrieve and distribute reports from the occurrence reporting system, prepare responses to request for credentials.

### On Site Technical Support

ADC reviews Technical Surveillance Countermeasures (TSCM) evaluations and resultant support schedules as well as TSCM and TEMPEST programs at all DOE AL Facilities. We provide review and evaluation of the computer security programs and analysis of computer security documentation for the unclassified computer security program. We evaluate documentation such as security plans and security test plans for accreditation of classified systems.

We review and evaluate Master Safeguards and Security Agreements (MSSA) and Site Safeguard and Security Plans (SSSP). We develop and maintain the facility approval process to include records for security plans and related correspondence. Also, we review class A, B and C security plans to insure consistency with requirements. Many of the specific activities are similar to those the Safeguards and Security survey task area but are performed on-site at the DOE-AL facilities.

We provide programmatic support to include review and comment on guidance provided by DOE Headquarters and on program-related documentation, including requests for exceptions. We provide supplemental guidance for AL facilities. We also review and evaluate the Safeguards Program Management and Planning. We research, analyze and prepare correspondence on issues of concern and draft supplemental policy from programs, as directed.

ADC also provides Material Control and Accountability support for Special Nuclear Materials. We review and evaluate Facility Material Control and Accountability (MC&A) procedural directives as well as plans and documentation for nearly a dozen MC&A specialized programs. We utilize automated information systems in the performance of these tasks. For example, we have developed program-specific data bases. We utilize a branch tracking system for facility reports. We also perform trend



analyses of inventory difference and shipper/receiver difference data and make appropriate recommendations.

ADC provides strategic support by assisting DOE-AL in the preparation and revision of the Site Security Plan and the Operations Security Plan, including components for information and computer security. Our expertise is utilized to review, evaluate, and validate security related plans, reports, studies and analyses generated by SNSD, PASD or Headquarters.

ADC also assists in Security Branch Self-assessment of the Information, Physical and Technical Security Programs. We review and evaluate security program impacts on all project documentation related to line items, General Plant Projects (GPP), Capital Equipment Projects and Cost Funded Projects. Additional support to the Security Branch includes the development, implementation and maintenance of all management systems related to Information, Technical and Physical Security programs such as project tracking, action tracking, data entry, file entry and maintenance of supporting documentation. We develop and maintain Protective Force (PF) General Orders and provide training to the PF to include maintenance of training records. We develop PF exercises and shift drills. ADC conducts and documents performance testing of all aspects of the security program. We review and evaluate for technical adequacy proposals regarding intrusion detection systems. ADC assists developing and validating risk and vulnerability as well as evaluating and validating security related plans, reports, studies and analyses.

#### Personnel Security

ADC provides assistance in development of the personnel clearance and selective reinvestigation programs. Also, ADC assists with the development, implementations, and inspection of the security education and visitor control programs.

ADC screens, analyzes, identifies and evaluates derogatory and mitigatory information in accordance with the criteria set forth in 10 CFR Part 710, Executive Orders, DOE Orders, and other directives

and recommends appropriate security action. All personnel security cases that enter the system are processed in a systematic and timely manner.

ADC conducts in-depth personnel security interviews in accordance with DOE policies and procedures regarding derogatory and mitigatory information and provides summaries or evaluations as appropriate. Personnel travel, as appropriate, to conduct these interview.

ADC assists in the preparation of management reports, interrogatories, and other related personnel security information.

ADC also prepares recommendations for subsequent security action and prepare correspondence related to suspension or administrative review process in substantially derogatory cases. Individuals may be required to testify before a Hearing Officer in administrative review hearings. All decisions regarding personnel clearance are to be determined by the DOE.

After addressing the situation that contributed to a backlog of reinvestigation cases and assessing method to make corrections, ADC identifies areas for improvement to the processing including hardware improvements, software improvements, and other technology enhancements. ADC develops plans for implementation of these improvements, including plans necessary to conduct research related to system efficiency, mitigating vulnerabilities as appropriate.

Personnel Clearance and Selective Reinvestigation-Adjudication. Responsibilities include: budget, track costs, arrange for qualified analysts, coordinate travel, maintain a case tracking system, ensure DOE computer, file and personal information are protected and secure, evaluate training needs and ensure proper analyst training, maintain and monitor follow-up systems for LOI's psychiatric evaluations, review Statements of Charges for accuracy and completeness, prepare weekly reports, and establish and maintain system of management review.

Personnel Clearance and Selective Reinvestigation-Technical. Responsibilities include: screen and analyze investigations and reports of derogatory



information; write Case Evaluation Statements (CES); schedule, conduct and summarize PSI's; prepare LOI's and questionnaires; prepare Statement of Charges; obtain and evaluation additional information necessary for adjudication; and follow-up all outstanding adjudicative action.

Assist in preparation, review, copying and distribution of correspondence, reports, monthly activity reports, and management briefings, LOIs etc. Coordinates AR Hearings and meetings. Maintains files and filing system. Acts as Classified documents custodia. Input and maintenance of data bases. Other duties: scheduling of psychiatric exams, coordinate Personnel Security Interviews, requesting security clearance, maintaining tracking systems and production sheets, ordering office supplies, making travel arrangements, obtaining credit checks, schedule meetings, receive telephone and personal callers, maintain and update correspondence handbook, process and tract notification letters, pick up and deliver records (police, counseling, medical, etc.)

### **Program Management**

ADC effectively and efficiently manages and monitors all aspects of program and task performance. We have utilized our expertise in information systems and quality assurance to develop computer tracking systems to ensure the quality and timeliness of deliverables. Contract deliverables include a variety of progress and expenditure reports on contract activities; ;survey reports, briefings, and recommendation; technical reports and studies; schedules and management plans; and other similar documents.



**Client:** U.S. Department of Energy, Rocky Flats Office  
P.O. Box 928, Highway 928  
Rocky Flats, CO 80402

**Contract No.:** DE-AP34-92RF00455

**Rocky Flats Office - Business Systems Review**

ADC provided expert consulting to the Office of the Manager, Rocky Flats Office, for the planning and preparation of the DOE Headquarters Contractor Business Systems Review (CBSR). This task demonstrates ADC's capabilities in providing support for DOE in overall management and other issues relating to M&O contractors.



**Client:** U.S. Department of Energy, Rocky Flats Office  
P.O. Box 928, Highway 928  
Rocky Flats, CO 80402

**Contract No.:** DE-AC34-92RF00460

**Rocky Flats Office - Strategic Planning for Business Systems and Transition**

ADC provided expert consulting to the Office of the Manager and the Assistant Manager for Administration.

Specific tasks were to provide recommendations for the Rocky Flats Office's transition plan in the areas of business systems, Rocky Flats Office organization, economic development, and staffing requirements, and review of Rocky Flats support service contracting activity.

ADC prepared a draft staffing request to DOE-Headquarters for an additional 90 FTEs. Justification was prepared for each of the

additional FTEs.

ADC analyzed the Rocky Flats economic development plan and provided recommended revisions and additions to the plan. These additions included a proposed organizational structure and milestones.

ADC also performed a review of selected Rocky Flats support service contracts. The objective of the review was to determine whether the support services were being performed in compliance with DOE and Federal policies for support service contracting.



**Client:** National Renewable Energy Laboratory (formerly SERI)  
1617 Cole Blvd.  
Golden, CO 80401-3393

**Contract No.:** Order #B-0-49237-1

**Physical Security Consulting**

ADC provided physical security, guard force and Site Security Planning evaluation to assist SERI in meeting DOE order 5632.6 requirements and to correct DOE-CH Security Findings. ADC conducted a compliance review and recommended corrective actions and prepared a Site Security Plan (SSP) documenting SERI procedures. The SSP was approved by DOE-CH. The work was

completed on schedule and within budget.

This project demonstrates ADC's expertise in physical security, guard force and Site Security Plan (SSP) consulting to a small DOE M&O Contractor facility which required assistance to meet DOE-Chicago Operations Office (DOE-CH) security requirements.



**Client:** EG&G Idaho  
1955 Fremont Ave, PO Box 1625  
Idaho Falls, ID 83415-2082

**Contract No.:** Order #C-90103216

**Operational Readiness Review**

ADC performed the Operational Readiness Review (ORR) for the Stanford Synchrotron Radiation Laboratory (SSRL) Injector. This was done under contract to EG&G Idaho to fulfill a final and independent review to assure that:

- 1) the SSRL Injector performed as designed and met the Injector Project Management Plan goals
- 2) that all necessary actions required for environment, safety and health protection

issues related to the SSRL Injector operations have been taken and completed by the SSRL Injector project management and personnel.

The purpose of the ORR plan was to assist in conducting the ORR in a systematic manner, covering all appropriate areas, and to assure that the ORR results were properly documented. ADC produced the ORR Report; draft Quality Assurance (QA) portion of the ORR plan, including criteria, forms and checklist; QA aspects of equipment, safety systems and facility, procedures and operations and maintenance training.



**Client:** U.S. Department of Energy  
Bonneville Power Administration (BPA)  
905 N.E. 11th Avenue  
Portland, Oregon 97232

**Contract No.:** DE-AC79-89BP00180

**Administrative Support Services**

ADC provides a wide variety of administrative, technical, clerical, and data entry support services to numerous departments within Bonneville Power Administration (BPA). The disparate requirements of this support is evident by the departments supported: the Office of the Administrator, which includes General Counsel and Information Resources; the Office of Financial Management; the Office of Management Services, which includes Materials and Procurement, Management Analysis, the Telephone Office, the Publications Warehouse, and Central Records and Micrographics; the Office of Power Sales; the Office of Energy Resources; the Office of Engineering, which includes Facilities Engineering, Electrical and Electronic Engineering, System Planning, Laboratories, and Administration; and the Office of Operations Maintenance and Construction, encompassing System Operations, System Maintenance, Power Systems Control, Construction, Land, and Administration.

**Word Processing and Document Preparation.**

ADC operates three dedicated word processing centers in the BPA departments of Materials and Procurement, Power Sales, and Energy Resource Management. Many other ADC personnel also perform word processing as part of a host of job duties. ADC personnel type, revise, proof, and letters, memos, reports, contracts, requisitions, and other documents from rough drafts or transcription; document content ranges from routine to highly complex and technical in nature. BPA has recently undertaken a large scale conversion of the word processing environment

from Wang to PC-based software in a Windows environment. ADC has played a key role in facilitating this conversion through document conversion and customized Windows applications support.

**Document and Archive Management.** ADC supports the Micrographics Office by logging and microfilming engineering drawings using aperture cards on a 35mm camera/processor, a DEC Rainbow System Controller, and standardized formal procedures and ANSI abbreviations. ADC also maintains engineering drawings in Central Records using an automated tracking system to log, retrieve, issue, and check drawings in and out. In the Division of Electrical and Electronic Engineering ADC personnel maintain and distribute engineering drawings, maintain microfilm files, use and maintain the blue-line copy machine, and manage this task using BPA Project Management Information System. BPA's large libraries of engineering drawings fill hundreds of binders and occupy hundreds of feet of shelf space. ADC maintains the Substation Specifications Master File, which contains equipment and construction specifications and a computerized cross reference of over 300 National standards and specifications.

In the Division of Facilities Engineering, ADC personnel process documents, generate and distribute reports, and manage files of a wide variety of documents, engineering plans and drawings, maps, data books, catalogues, and other materials. In the Geographic/Engineering Section, ADC personnel handle all map and photo inquiries



by mail and telephone and maintain files and archives of aerial photo files and over 18,000 maps. ADC also edits photogrammetric manuscripts of planimetric and contour data compiled on BPA stereoplotters.

In managing all documents, files, archives, and other materials for BPA, ADC processes, distributes, archives, and disposes of material in accordance with prescribed regulations outlined in Records Schedules and Files Handbooks.

**Data Entry.** ADC has 46 dedicated data input and data analysis specialists at BPA, as well as a number of other personnel (engineering technicians, administrative technicians, and clerks) who perform data entry in addition to other tasks. ADC's data entry tasks encompass sensitive data with stringent accuracy requirements. For example, data entry for utility power billing (the public and private utilities who purchase electric power from BPA) must meet strict acceptance requirements for accuracy and turnaround. Other examples are data input and calculation of time

accounting for the Office of General Counsel, data entry for procurement requests which must be verified and matched to funding processes, and travel data which must be verified to meet specified limitations.

**Administrative Support.** ADC personnel perform numerous clerical functions in many BPA departments. Representative examples of general clerical support tasks include: maintenance of time and attendance records; preparation of travel vouchers for government employees for domestic, foreign, and reconstructed travel; and facilitation of training for government employees by processing forms, registration, and payments. ADC provides specialized clerical support to BPA. For example, in the Division of Materials and Procurement (M&P), ADC operates the Bid Desk, distributing solicitations, logging IFBs and RFPs, logging and verifying CBD notices, and maintaining the Bidders Mailing List. For M&P ADC also maintains logs for correspondence and manufacturers' drawings, and processes closed contracts for storage.

**Video Support.** ADC provides video support services for BPA's Video Manager. ADC's video technician films, produces, and edits videos for BPA. Subject matter ranges from training videos to executive presentations and media events.



**Client:** U.S. Navy, Naval Air Station  
Alameda, CA

**Contract No.:** GS00K-91-AJD-0500, Task No. POB 172002

**Vulnerability Assessment for the U.S. Navy, Naval Air Station at Alameda, Performed through GSA contract for System Definition and Design in the Pacific Zone**

This task was performed for the Naval Air Station, Alameda, under direction of the Naval Civil Engineering Laboratory, Geographic Information Systems Team (GIST), of the Utilities Process and Geographic Information Systems Division, Code 73, Port Hueneme, California. There are four major application areas covered by GIST research activities: Facilities/Utilities Management; Real Estate/Natural Resource Planning; Military Land Use Management; and Environmental Compliance. The objectives of GIST are to support utilities and environmental geoprocessing by providing CAD, GIS, remote sensing/image processing, and data management technology.

This work was performed under ADC's contract with the General Services Administration. The task was to perform a thorough vulnerability assessment of utilities and establish a working plan for disaster preparedness for the NAS Alameda facility. The task was a risk-based assessment with additional investigation through a more detailed evaluation of internal controls. Special emphasis was given to vulnerability to terrorist attacks, earthquakes, and major weather conditions.

ADC prepared a vulnerability assessment of all mission-essential utilities: electrical, water, wastewater, gas, steam, compressed air, and POL (aircraft) of the various commands within NAS

Alameda, gathering data on-site. The vulnerability assessment consisted of four phases: identification of major activities; identification of major risks related to the activities; identification of major offsetting controls which minimize the risks; and assessment of compliance of internal controls to applicable standards and regulations.

ADC reviewed the master plan for disaster preparedness, identifying its mission and background. ADC researched and identified potential risk to NAS utilities and their major components, identified repair and recovery capabilities, evaluated alternatives, and made overall conclusions and recommendations in an Executive Summary. The final assessment included digital pictures of vulnerable utilities to clearly communicate their location and level of vulnerability.

ADC researched local, state, and federal institutions in the San Francisco Bay area to provide lessons learned during the Loma Prieta earthquake of 1989 which were particularly applicable to the Naval Air Station at Alameda.

This project demonstrates ADC's expertise in conducting large-scale major military installation vulnerability assessments of sensitive installations and facilities.



**Client:** U.S. Army Corps of Engineers  
Information Requirements and Planning Division  
211 Main, 6th Floor  
San Francisco, CA 94105

**Contract No.:** GS00K-91-AJD-0500, Task No. POB 172002

**WAN/LAN and Personal Computer Security Analysis, Performed through GSA contract for System Definition and Design in the Pacific Zone**

This work is being performed under ADC's contract with the General Services Administration. ADC's objective of this task order is to develop accreditation documentation for the wide and local area networks to include the personal computers for the South Pacific Division, encompassing facilities in San Francisco, Los Angeles, and Sacramento, as well as remote field offices. The microcomputers have existing accreditation documentation which can be updated. The WAN/LAN accreditation is a new effort.

The work consists of providing risk assessment for approximately 2200 personal computers that can operate in stand alone mode or that communicate with various mainframe applications or that are integrated into selected local area networks (LANs). The LANs have the ultimate goal of operating at the US2 security level.

The WAN/LAN accreditation and personal computers reaccreditation must satisfy the requirements of numerous Army, DOD and Federal regulations.

These requirements included:

AR 380-5 Department of Army Information Security Program

AR 190-13 The Army Physical Security Program

AR 360-19 Information Systems Security

AR 380-67 The Department of the Army Personnel Security Program

DOD 5200-28 STD Department of Defense Trusted Computer System Evaluation.



**Client:** Naval Command, Control, and Ocean Surveillance Center (NCCOSC) In-Service  
Engineering West (NISE West)  
San Diego, CA 92138

**Contract No.:** GS00K-91-AJD-0500, Task No. POB 172002

**AIS System Test and Evaluations (ST&E) and Controlled Access Protection (CAP) Review**

This work is being performed under ADC's contract with the General Services Administration.

The Information Resources Division of Naval Command Control and Ocean Surveillance Center (NCCOSC), In-Service Engineering West (NISE West), is responsible for providing computer resources and networking support to the administrative, engineering, and scientific functions of the NCCOSC and Detachments. Code 140 and the users of the NCCOSC General Purpose Computer Center perform a variety of tasks with diverse hardware and software; they require a varied range of ADP and network support to perform these tasks. A major part of that support is maintaining a Computing and Network Facility for administrative, engineering and scientific computing and Computer Resource Center. Support services are necessary to sustain these facilities and their related applications.

ADC is developing and executing a System Test and Evaluation (ST&E) Plan to test the countermeasures cited in the existing Risk Assessment and to review the C2 Controlled Access Protection (CAP) requirements. Although there are approximately 600 microcomputers, this task shall address them only in terms of their access to the systems involved: IBM mainframe, WANG mainframe, and the LAN servers.

ADC is reviewing the current Risk Assessment to verify that the countermeasures are in place for the IBM mainframe, Wang mainframe, and

LAN servers. ADC is also identifying any other valid threats and vulnerabilities and recommending their respective countermeasures.

Based on the findings from the Risk Assessment review, ADC will develop and execute a System Test and Evaluation plan to test the countermeasures cited in the existing Risk Assessment and any new countermeasures that are identified. ADC will evaluate costs associated with any of the appropriate countermeasures not in place and assess the impact to the Annual Loss Expectancy (ALE) in the current Risk Assessment. Additionally, ADC will evaluate the findings and recommend whether or not each system should be accredited.

In accordance with the "Controlled Access Protection (CAP) Guidebook," (NAVSO P-5239-15) ADC reviewed the C2 CAP requirements and implementation for the WANG, IBM, and LAN Servers.



**Client:** Department of Energy  
Bonneville Power Administration  
**Address:** 905 NE 11th Avenue  
Portland, OR 97232

**Contract No.:** DE-AM79-89BP96545

**ADP Support Services**

This contract required the full spectrum of Systems Life Cycle Management: requirements analysis and definition; feasibility and cost analyses; design, development, and implementation of software and systems; documentation; and software maintenance. Customer support tasks included microcomputer hardware installation, maintenance, and repair, as well as pre-installation services; equipment, parts and inventory management; and operation of the Microcomputer Resource Center and Loan Pool.

ADC developed, maintained, and enhanced a number of data bases and applications programs. A few examples of relevance to DOE-OAK requirements include:

PCB Tracking System (SPCB)  
Hazardous Waste Tracking System (HWTS)  
System Equipment Records (SSER)  
Material Request System (SMRS)  
ADP Equipment Tracking System (SAETS)

One representative example is described in more detail below.

**PCB Tracking System (SPCB).** This application provides management with the information necessary to effectively control the actual movement or storage of materials that are considered PCB-contaminated. It is used by BPA's Utilization and Disposal Section to produce both state and federal required reports. ADC converted the system from an IBM mainframe to an IBM PC-based system, enhancing it and providing documentation and user support. Written in dBase IV, it comprises 14 programs totaling 14,000 lines of source code.



### 2.2.2.2 PAI's Corporate Capabilities and Experience

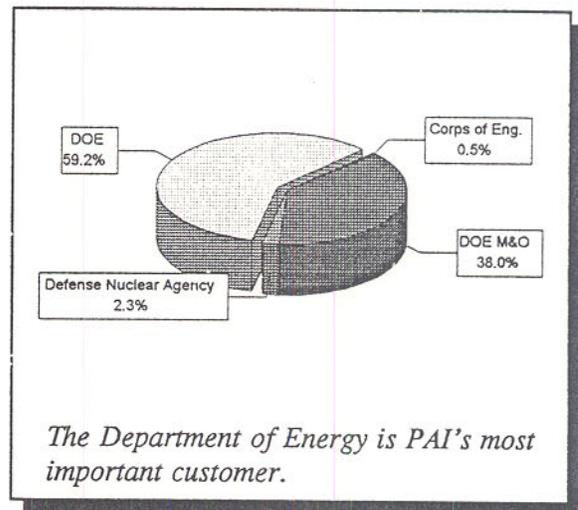
PAI Corporation is a \$16M company with an 11-year track record of serving the U.S. Department of Energy (DOE). The firm was certified 8(a) in 1987 and has since established a reputation for excellence at the DOE Operations Offices in Oak Ridge, Nevada, Savannah River, Oakland, Albuquerque, Richland, and Weldon Spring. The firm has been rated "Excellent" by all of these offices and has received the Award of Excellence from the Small Business Administration, Lockheed Martin Energy Systems, and the Governor of Tennessee. PAI is dedicated to the highest level of commitment and responsiveness in supporting its clients by meeting their needs within budget and on time with high quality products. PAI associates have received over 130 commendation/appreciation letters from PAI customers, primarily DOE.

For more than ten years PAI has been actively participating in addressing the challenges facing the Department of Energy. Currently PAI has more than over 30 multi-disciplinary, multi-task contracts with DOE nationwide, many of which are similar to this contract in size and complexity.

PAI has assembled a staff of over 300 engineers, scientists, and technical and management specialists whose breadth of background and experience focuses almost exclusively on the current issues and challenges associated with the operation of DOE facilities.

These challenges, brought about primarily by organizational realignments, increasing budget constraints, and changing regulatory and administrative requirements, include program/project management, occupational/industrial safety and health compliance, facility operations, environmental compliance, and quality assurance.

Exhibit 2.2-3 on the next page presents a representative sampling of the extensive work that PAI is performing for DOE and other agencies. As illustrated below, the Department of Energy is PAI's largest client.



PAI has assisted DOE in the review of several hundred ES&H documents for technical and regulatory adequacy and has developed, reviewed, and assisted in the implementation of several hundred ES&H project management documents such as project management and implementation plans, project control plans, self-assessment program and implementation plans, quality program plans, training plans, conduct of operations plans, and operational readiness review plans. PAI also routinely assists DOE in performing multidisciplinary appraisals, functional appraisals, and audits.

PAI is a DOE-OAK incumbent contractor, providing support to the Assistant Managers for Defense Programs, Environmental Management and Support, and Energy Programs.



**Exhibit 2.2-3  
Excerpts of PAI's Relevant Contract Experience**

Agency	Contract Number and Title	Type of Contract	# of Task Orders	Period of Performance	Types of Services Performed
DOE/OAK Operations Office 1301 Clay Street, 700 N Oakland, CA 94612-5208	DE-AC03-90SF18504 Technical and Management Support Services to AMEMS, AMDP, and AMNE	CPFF	39	1990 - 1996	Broad-spectrum ES&H technical support services, including review of program documentation, program assessments, and specialized technical support; preparation of management directives; conduct of operations appraisals; review of safety analysis reports; provide engineering, regulatory support services
DOE/OR Operations Office P.O. Box 2001 Oak Ridge, TN 37831	DE-RP05-88OR21794 Technical Management Support Services to DOE/OR and LMES	CPFF	133	1989 - 1996	Review of ES&H program plans, project management plans, QA program plans, day-to-day assistance in data tracking, database development, and cost/schedule evaluation. Training for senior DOE managers in management appraisals, checklists, multi-functional appraisal checklists, and 40-hour hazardous operation safety training
DOE/NV Operations Office P.O. Box 98518 Las Vegas, NV 89193	DE-AC08-89NV10793 and DE-AC08-95NV11762 Technical Support Services to the DOE/NV Operations Office in ES&H and ERWM	CPFF	220	1989 - 1996	ES&H and EM program management assistance, quality assurance, field audits, geohydrological program plans, multi-disciplinary appraisals, document review, and training
Lockheed Martin Energy Systems, Inc. P.O. Box 2008, MS-6333 Oak Ridge, TN 37831-6333	28K-AQG57C Safety Review and Documentation Support LMES Nuclear Facilities	CPFF	15	1993 - 1998	Safety assessment and analysis of nuclear and non- nuclear facilities and systems for the Oak Ridge Complex
DOE/RL Operations Office P.O. Box 500 Richland, WA 99352	DE-AC06-92RL12088 Support Service for ES&H&QA Oversight Functions	CPFF	39	1992 - 1995	Technical and management support in documentation, reviewing, auditing, and management in ES&H&QA
Lockheed Martin Energy Systems, Inc. P.O. Box 2003, MS-7541 Oak Ridge, TN 37831-7541	32K-DRY10C Systems Engineering Support Services to LMES	CPFF	1	1995 - 2000	Systems Engineering Support Services including defining program and project mission, objectives, scope, constraints, and requirements; assisting in program and project integration; definition of functional performance requirements; and transition planning
DOE/SR Operations Office P.O. Box A Aiken, SC 29802	DE-AC09-SR18221 Technical Support for AMFO-DOE/SR	CPFF	44	1991 - 1995	Technical and management support in review of technical documents required for operation and other managerial functions
DOE/WSSRAP 7285 Highway 94 South St. Charles, MO 63304	DE-AC05-92OR22060 Project Plan and Review, Technical Review, and Regulatory Review	CPFF	5	1992 - 1994	On-site management and technical support services to WSSRAP in the environmental restoration of the Weldon Spring Site. Project management support, project control, conduct of operations, appraisals, self-assessment plans, budget plans, ADS five-year plans, and document reviews
Jacobs Engineering Group, Inc. 125 Broadway Ave Oak Ridge, TN 37830	Subcontract U.S. Department of Energy Oak Ridge Environmental Restoration Program Technical Support Contract	CPFF	83	1993 - 1998	Managing contract activity in the Oak Ridge Reservation; providing environmental restoration technical and management support in mixed and hazardous waste and radionuclide fission product, record searches, characterization of data, human health, and ecological risk assessments; preparation of reports and documentation



**Client:** U.S. Department of Energy  
Oakland Operations Office  
1301 Clay Street, Room 700 N  
Oakland, CA 94612-5208

**Contract No.** DE-AC03-90SF18504

**Technical and Management Support Service to DP, ES&H, and NE Offices**

PAI is currently the incumbent contractor at DOE-OAK for environmental safety and health (ES&H) technical support services. Because the needs of DOE have changed over the past several years, the focus of PAI support services has also changed. Areas of focus currently include:

**PROGRAM AND PROJECT  
MANAGEMENT SUPPORT:**

- **New DOE Order Assessment** - review and assessment of new DOE Orders with respect to DOE-OAK operations, as directed by the Assistant Secretary of Environment, Safety, and Health.
- **Order Compliance and Standards/Requirements Identification** - support to Defense Program Order Compliance Self-Assessment activities in accordance with DP-AP-202, and standards/requirements identification documents (S/RIDs) development in accordance with Defense Nuclear Facilities Safety Board (DNFSB) Recommendation 90-2.
- **Facility Representative Program Development** - development of facility representative qualification and training requirements and examinations; ongoing compliance activities in accordance with DNFSB 92-2 and 93-3.

- **GRANTS Database Development** - technical support to DOE through its Oak Ridge contract to upgrade the GRANTS database; DOE-OAK and DOE-COO are participants.
- **Preparation of Draft DOE-OAK Directives** - assistance in the preparation of draft DOE-OAK directives and evaluation of DOE-OAK compliance with DOE Orders.
- **Functional Appraisal Guideline Documentation** - development of functional appraisal guideline documentation and lines of inquiry.
- **Administrative Support** - development and management of comprehensive management tracking and reporting systems to support DOE-OAK Environment, Safety, and Facility Operations Division's (ESFOD) day-to-day operations.

**TECHNICAL STUDIES:**

- **Fire Protection** - processing of exemption/equivalency requests and performance of fire protection assessments of DOE nuclear and non-nuclear facilities.
- **Industrial Hygiene Technical Support** - hazardous material (including hazardous gases) handling appraisals at DOE-OAK facilities.



- **Facility Operations/Safety Review** - review of nuclear facility operations and facility safety, including an accident investigation at the tritium facility.

**DOCUMENT PREPARATION AND REVIEW:**

- **Emergency Preparedness (EP)** - preparation of the DOE-OAK EP Program Plan, Emergency Readiness Assurance Plan, and Duty Officer Handbook; ongoing review and update of revised emergency preparedness site documentation.
- **National Environmental Policy Act (NEPA)** - preparation of NEPA documentation, including Categorical Exclusions (CXs).
- **Defense Program Quality Assurance** - review and development of Defense Program quality assurance implementation documentation.

**ES&H AND FACILITY OPERATIONS SUPPORT:**

- **Environmental/Industrial Safety and Health and Quality Assurance** - comprehensive environmental and safety walk-throughs and appraisal/assessments in support of nuclear and non-nuclear facilities at Lawrence Livermore National Schedule Adherence: All tasks were performed at Lawrence Livermore National Laboratory (LLNL), Lawrence Berkeley Laboratory, Stanford Linear Accelerator Center, Rockwell Energy Technology Engineering Center, and the Ann Arbor Internal Confinement Fusion Facility.
- **Real-Time Hazardous Waste Management Tracking System** - close coordination with DOE-OAK Waste Management and Lawrence Livermore National Laboratory in developing a dedicated real-time hazardous waste management system.

- **Operational Readiness Reviews (ORRs)** - assistance in the performance of Operational Readiness Reviews (ORRs).
- **Conduct of Operations Appraisals** - Conduct of Operations appraisals for DOE-OAK facilities.
- **Hazardous Material Management and Transportation Programs** - appraisal of hazardous material management and transportation programs.
- **Land Disposal Restriction (LDR) audits** - participation in RCRA LDR audits at LLNL.

**BRIEFINGS AND REPORTS:**

- **DOE/DP Quality Working Group** - close interaction with DOE Headquarters (DOE/HQ) DP-3 personnel in a study on the adoption of commercial standards.
- **DOE/HQ Specialty Areas** - Molybdenum-99 synthesis studies; plutonium consumption/utilization studies; Flight Topaz project.
- **Facility Safety** - facility safety documentation review and update, including review of hazard screening evaluations and safety analyses of nuclear and non-nuclear facilities.

**Performance:**

- performed on schedule.
- Cost Savings Realized:** PAI has consistently saved money for DOE-OAK, at the level of 2% to 4% per year from budgeted amounts since 1990. The savings were credited to DOE-OAK.
- Terminations:** All tasks were performed on schedule.



- d. Schedule/Cost Overruns: No schedule or cost overruns have occurred.
- e. ESFOD staffing plan prepared by PAI was used as a model by DOE-HQ. PAI personnel received five letters of commendation/appreciation from the client.



**Client:** U.S. Department of Energy  
Oak Ridge Operations Office  
P. O. Box 2001  
Oak Ridge, TN 37831

**Contract No.** DE-AC05-88OR21794

**Technical and Management Support Services to ES&H and ERWM Offices**

This \$24.7 million ongoing contract was competitively awarded in 1988. PAI provides management and technical support to DOE-ORO and Lockheed Martin Energy Systems, Inc. (LMES) in the areas of program/project management, technical studies, document preparation and review, ES&H support, and facility operation support. DOE-ORO is responsible for the safe and environmentally compliant operations of five major installations: Oak Ridge National Laboratory (ORNL), Y-12 Plant, K-25 Site, Paducah Gaseous Diffusion Plant, and Portsmouth Gaseous Diffusion Plant. PAI has provided specialists to assist both ORO and LMES at these sites in the full range of support requested in the RFP. A brief description of the services provided follows.

#### **PROGRAM AND PROJECT MANAGEMENT SUPPORT:**

- **Management Appraisal Program:** assistance to DOE-ORO in developing and implementing a management appraisal program in accordance with DOE Order 5482.1B. PAI provides highly experienced senior managers who (1) developed the appraisal procedures and training materials, (2) trained DOE managers (Assistant Managers to Branch Chiefs) on conducting management appraisals, and (3) fully participated on the DOE-ORO Team that appraised each LMES site.

- **Project Documents:** senior engineering management preparation of the Project Plan and Project Management Plan for LMES' Pond Waste Management Project in accordance with DOE Order 4700.1, and development of a comprehensive oversight and management plan to monitor the technical, and ESH&QA performance of the contractor that was selected to dewater and solidify low-level waste, and overpack deteriorating drums.
- **Engineering/Design Support:** design and engineering support, including performance of feasibility studies; preparation of design criteria, procurement specifications and acceptance test criteria; development and review of conceptual designs; and support of design testing.
- **Contractor Management Systems Assessment:** assistance to LMES at K-25 in upgrading its configuration management (CM) and change control system.
- **Administrative Support:** (1) support to both DOE-ORO and LMES on numerous multi-functional DOE-ORO appraisal teams to oversee and prepare the team report; (2) attendance of management and divisional meetings to prepare and distribute the meeting minutes; and (3)



assistance in sorting, recording, and filing training records.

#### TECHNICAL STUDIES:

- **ESH&QA Support:** technical support to DOE-ORO in ESH&QA, including multi-functional appraisals of LMES facilities for compliance with the major environmental regulations (e.g., RCRA, CERCLA, TSCA, CWA, CAA and NEPA); review of DOE Orders and the development of procedures at the division and branch levels; preparation of guidance manuals for implementing the environmental regulations; reviews of LMES safety and health plans; and inspection of LMES sites for compliance with OSHA.
- **Planning and Budget Support:** assistance to DOE in review ERWM long-term strategic plans and Activity Data Sheets.
- **Data Processing Support:** data processing support to both DOE-ORO and LMES to develop databases for tracking (1) action items resulting from DOE appraisals and reviews, (2) permits and associated documents required by regulatory agencies, and (3) the contents of tanks containing wastes and process materials.
- **Planning and Conducting Internal Self-Assessments:** support to the DOE-ORO Office of Self Assessment and individual divisions in planning and conducting internal self-assessments, including the preparation of plans and procedures to implement DOE Headquarters direction, and the review of self-assessment actions to close-out findings.

#### DOCUMENT PREPARATION AND REVIEW:

- **NEPA Support:** support to DOE-ORO in preparing NEPA documentation and

implementation procedures, the NEPA, CERCLA, and RCRA integration documentation and reviews of ADMs, EAs, portions of EISs, and FONSIIs.

- **Environmental Monitoring:** performance of comprehensive reviews of Environmental Monitoring Reports for ORNL, Y-12 Plant, K-25 Site, Portsmouth GDP, Paducah GDP, Strategic Petroleum Reserve Office (SPRO), and Weldon Spring Site Remedial Action Project (WSSRAP). PAI also reviewed several proposals for trash monitoring stations upgrade at the Y-12 Plant.
- **ES&H Procedures and Training:** assistance to DOE-ORO in preparing several ES&H manuals, procedures, and training materials. Examples are: *Environmental Protection Oversight Manual*, *EPD Management Requirements and Policy Manual*, *ERD Policy and Procedure Manual*, *Guidance for Processing NEPA Determination*, *Non-Radioactive Air Pollution Control Appraisal Guide*, and *Functional Appraisal Procedure and Training Manual*.
- **Permit Support:** assistance to DOE-ORO in preparing and reviewing permit applications, and developing a permits tracking system database for (1) air permits (2) and National Pollutant Discharge Elimination System (NPDES) water pollution permits. The system includes the program and database, system guide, and user manual.
- **Safety and Health Regulatory Compliance:** performance of nuclear criticality safety reviews, radiological safety reviews, OSHA compliance, fire protection assessments, industrial hygiene assessments, and transportation and packaging safety reviews for both DOE-ORO and LMES organizations. The tasks include field inspections, plant walk-



downs, on-spot surveys, hazards identification, hazard screening, criticality and risk quantification, recommendations on risk mitigation or elimination, program development, implementation plans and procedures preparation, data and reports reviews, documentation, appraisals and assessments.

- **Quality Assurance:** assistance to DOE-ORO in preparing and reviewing ERWM, AMDP, and WMTD quality assurance plans; ERD quality assurance procedures; and Safeguards and Security quality assurance procedures. Support also includes conduct of quality assurance audits and appraisals at ORNL, ORAU, Paducah, K-25 Site, and other ORO sites. PAI also provides conduct of operations and root cause analysis support to DOE-ORO.
- **Project Management Documentation:** preparation of the Project Plan and Project Management Plan, as required by DOE Order 4700.1, for the LMES Pond Waste Management Project.
- **Appraisals and Self Assessments Documentation:** DOE-ORO appraisal team participation in preparing multifunctional appraisal plans and the appraisal reports (e.g., multifunctional appraisal of ORNL, Y-12, Paducah Gaseous Diffusion Plant, FUSRAP sites, Portsmouth Gaseous Diffusion Plant). Support also includes preparation of plans of DOE-ORO's Office of Self Assessment.

## ES&H AND FACILITY OPERATIONS SUPPORT:

### Environmental Compliance and Assessment

- Functional appraisal guide for non-radioactive air pollution control
- Compliance assessment of the Oak Ridge Y-12 Plant

- Management Policies and Requirements Manual
- Review of the Colonie Interim Storage Site environmental report
- Review of the Hazelwood Interim Storage Site environmental report for 1989
- Underground storage tank program policy for DOE/ORO
- Comments on characteristics data report for the WSS chemical plant/raffinate pits and vicinity properties
- Review of annual environmental reports for Paducah, Portsmouth, and the Oak Ridge Reservation
- Fire Training Area Burn Pits for DOE's Pantex Plant (Work plan)
  - Review of closure plan for the test reactor area paint shop ditch (COCA Unit TRA-02)
- Test reactor area paint shop ditch (COCA Unit TRA-02). Closure plan.
  - Statement of work for preparation of criteria for appraisals of non-radioactive air pollution control
- Cheyenne Mountain AFB Colorado Air Force Space Command spill prevention and response plan
- Evaluation of selected 1991 airborne effluent results for ORNL, Y-12, and K-25 sites
- Technical review of environmental protection implementation plan for ORNL
- Review of assessment summary report on 5820.2A compliance-ESD/MK-Ferguson
- Recommended Federal and contractor "smart samples" on 5820.2A compliance, SD/MK-Ferguson
- Environmental assessment (EA) for shipment of irradiated fuel specimens/special nuclear materials from General Atomics to ORNL
- Draft ES&H policies, procedures, and implementation plan
- Technical review of draft EM technical standard, S&H hazard identification and control documentation



- Investigation of total residual chlorine noncompliance
- ES&H inspection at Portsmouth Gaseous Diffusion Plant

#### Environmental Monitoring

- ORO Environmental Operations Branch surveillance schedule
- General comments on 1989 annual environmental monitoring report for the SPR
- Waste Management and Technology Development Division (WMTD) facility monitoring program plan
- Waste Management Division (WMD) facility monitoring program plan
- Environmental monitoring plan for Oak Ridge Reservation
- Storage of transuranic waste at SWSA 5 North. Investigation of release and monitoring
- Review of preliminary proposal (PP 1077, Trash Monitoring Station 11 upgrade - Y-12 Plant, ADS 2206)

#### Geotechnical Analysis/Geohydrology

- Weldon Spring review of the draft aquifer characteristics data report for the Weldon Spring Site (WSS) Chemical Plant/Raffinate Pits and vicinity properties
- Groundwater contamination in the vicinity of the K-1407-B and C Ponds and implications for closure
- K-25 Site groundwater protection program management plan

#### Environmental Regulations, Procedures, and Documentation

- Environmental Protection Division (EPD) Oversight Manuals
- Environmental Oversight Manual functional appraisal checklist (Draft)
- DOE/OR EPD Oversight Program Environmental Functional Appraisal Manual

- Revised Draft of OR 5482.1B. Functional Appraisal Program Development
- ERWM QA Plan and WMTD Procedures - response to headquarters comments
- Preparation of EPD procedures

- Subtask to investigate and consolidate environmental information sources
- Construction project contaminated soil reuse guidance
- Comparative analysis of Nuclear Regulatory Commission (NRC) requirements with DOE Orders for design of a DOE spent nuclear fuel dry storage facility
- ES&H inspection plan for PGDP

#### Safety Analysis/Assessment

- ORNL low-level liquid waste solidification safety concerns
- Evaluation of DOE/EIA RE-859 data form regarding defective spent nuclear fuel
- Comparison of the event reports with the DOE/EIA RE-859 database on defective spent nuclear fuel Report comparing LERS and RW-859 database
- Inference analysis for defective spent nuclear fuel in the RW-859 database
- Comparing the information on defective spent nuclear fuel from the DOE/EIA RE-859 data base with those from the NRC licensee's event reports
- March status report for defective nuclear spent fuel analysis
- Defective spent nuclear fuel analysis
- Preliminary proposal for building modifications to K-1420, K-1435, and K-1419
- Safety assessment of ORNL LLLWTF and associated tank trucks
- Federal Building underground storage tank compliance options
- Removal and replacement of Underground Storage Tank 1 at the Federal Building PORTS review.
- K-25 Site gaseous diffusion shut-down facilities safe storage work plan for



electrical system safety analysis for High Flux Isotope Reactor (HFIR) storage pad

**Fire Protection**

- Programmatic review of the fire protection function for K-25 ES&H self-assessment

**Industrial Safety-OSHA**

- 24 hour SARA OSHA training and 8 hour SARA OSHA refresher training
- Corrective Actions - Type A Investigation of the Industrial Accident at the Pond Waste Management Project - Draft response
- Safety inspection of WMTD spaces occupied at Federal Building

**Radiological Safety**

- Radiation protection Technical Safety Appraisal (TSA) of the Oak Ridge Sites (response to Category II concerns)
- Review of internal working draft "SRSSNF Demonstration Dry Storage Facility Project Definitions"
- Review of "Interim Storage/Demonstration Issue Clarification"

**Transportation/Packaging Safety**

- Statement of Work for transuranic waste transportation and interim storage
- USDOT regulations for uranium hexafluoride transport

**Emergency Preparedness Support:**

assistance to the DOE ESQ Division in developing a comprehensive emergency preparedness appraisal program as required by the 5500 series of DOE Orders for the Oak Ridge sites; preparation of guides, checklists and a findings tracking system; development of procedures for emergency operations center operational readiness reviews, training, document control, self-assessment and corrective action tracking;

and assistance to the DOE Y-12 Site Office in reviewing the LMES Emergency Preparedness Program to ensure compliance with the DOE Orders (5500 series).

**BRIEFINGS AND REPORTS:**

PAI supports both DOE-ORO and LMES in coordinating meetings and preparing the associated documentation. PAI specialists, assist DOE on a major readiness assessment, coordinate the meeting schedules, prepare the agenda, and issue the meeting minutes. Another associate assists LMES in shipping wastes, and coordinating meeting schedules, preparing the agenda, and preparing/issuing the meeting reports.

**Performance:**

- Schedule Adherence: All tasks have been performed on schedule.
- Cost Savings Realized: PAI has exercised cost control and has successfully reduced indirect costs for five years in a row. As a result, PAI credited DOE-ORO with annual savings of 1.7% to 6% from the approved invoices over the past 5 years.
- Terminations: No task order terminations on this contract as a result of poor performance. PAI was graded "Excellent" by DOE-ORO for its performance in FY 1990, FY 1991, FY 1992, FY 1993, and FY 1994.
- Schedule/Cost Overruns: No schedule or cost overruns. As a result of our performance, DOE-ORO nominated PAI for the Award of Excellence to the Small Business Administration. DOE-ORO has increased PAI's fee from 8% to 8.8% and has extended the contract 3 years from the original 5 years.
- 20 letters of commendation/appreciation from client officials.



**Client:** U.S. Department of Energy  
Nevada Operations Office  
P.O. Box 98518  
Las Vegas, NV 89193

**Contract No.** DE-AC08-89NV10793

**Technical and Management Support Services**

PAI was awarded this \$12.7 million contract in 1989 to provide technical and management support to DOE-NVO for Nevada Test Site (NTS) operations, and the DOE-NVO offices of Assistant Manager for Environment, Safety, Security, and Health (AMESSH) and the Assistant Manager for Environmental Restoration and Waste Management (AMEM). This contract involves both routine and quick-turnaround tasks requiring specialized personnel. While PAI typically supplies the needed personnel from its own pool of qualified specialists; subcontractors and consultants are also frequently used to support not only routine tasks requiring highly specialized talent, but also quick turnaround tasks. A brief description of the services provided follows.

#### **PROGRAM AND PROJECT MANAGEMENT SUPPORT:**

- **Management Support to AMESSH and AMEM Offices** - preparation and review of the management plans, contractors' responsibilities management matrices, DOE-NVO Orders, and the nuclear explosive training program. PAI also provide business (process) modeling services and technical guidance in advanced management systems.
- **Review of Management Plans** - review of the configuration management plans and procedures developed by DOE's M&O contractors, Reynolds Electrical and Engineering Company (REECO),

Raytheon Services Nevada, and EG&G Energy Measurements.

- **Design Reviews** - technical and cost estimating reviews of designs submitted by other DOE contractors for DOE approval.

#### **TECHNICAL STUDIES:**

- **Functional Appraisals** - appraisals of M&O contractor operations, including Reynolds Electrical & Engineering Co., Inc. environmental protection operations and Desert Research Institute, University of Nevada System, radiological safety operations.
- **QA Plan Preparation and Implementation** - quality implementation plan for the HPDWD, quality implementation plan for the Hydrology Radionuclide Migration Program, Office of Quality Performance Management Plan FY 1993, and quality assurance program description.

#### **DOCUMENT PREPARATION AND REVIEW:**

- **NEPA Documentation** - preparation of documents for DOE-NVO's NTS and off-NTS proposed activities, including environmental assessments, environmental



impact statements, and NEPA training curricula and lectures.

- **Environmental Database** - preparation of program requirements documents including DOE-NVO Orders, development and maintenance of several environmental databases, and management of the AMESSH Data Resource Center.
- **Waste Management Plan** - preparation of the management plan for transuranic (TRU) waste retrieval from greater confinement disposal at the NTS, site-specific waste management plans, and plans for full facility compliance for the radioactive waste management system.
- **Independent Technical Reviews** - the conceptual design reports on liquid-waste treatment plants, a liquid waste injection well, and steam cleaning effluent ponds.
- **RCRA Compliance Documentation** - low-level radioactive and RCRA-regulated waste generator audit/compliance services for DOE-NVO's NTS waste disposal operations.

#### ES&H AND FACILITY OPERATIONS SUPPORT:

- **DOE Office Support** - administration and management assistance to the Office of the Assistant Manager of Environment, Safety, Security and Health (AMESSH) and to the Environmental Protection Division (EPD) in the oversight of DOE-NVO's ES&H and facility operations.
- **Environmental Compliance, Assessment, and Analysis** - Environmental Assessment for the Depleted Uranium Testing Program at the NTS, for the U.S./U.S.S.R. Verification Inspection Team housing, for the Device Assembly Facility Operations at the NTS, and the analysis of the new NPDES regulations for storm water discharges

versus their applicability to DOE-NVO Operations.

- **Safety Analysis/Assessment** - safety analysis for TRU waste drum breaching operations; hazardous gases safety assessment at LBL; preparation of NV draft Orders 5480.7, Fire Protection, 5480.8, Contractor Occupational Medical Program, and 5480.13, Aviation Safety.
- **Radiological Safety** - radiological safety program review checklist (verification of contractor/user implementation of DOE Orders and other applicable regulations),
- **Support to the Health Physics & Defense Waste Division (HP&DWD)** - internal dosimetry program, dosimetry research project, radioactive materials and device control, operational radiological safety programs, test control program, radiological investigations and unusual occurrence reporting, and radiological records management.
- **Health Physics and Industrial Hygiene** - preparation of Health Physics Management and Technical Overview Guidelines; preparation of Draft of NV Order 5480.8, Contractor Occupational Medical Program; compliance review of industrial hygiene activities; and assistance in the industrial hygiene and sanitation section of compliance assessment program
- **Transportation/Packaging Safety** - support in DOE-NVO's Federal Employee Motor Vehicle Safety Program; compliance reviews of packaging and transportation of hazardous materials and hazardous waste, and packaging and transportation of nuclear explosives, nuclear components, and special assemblies.
- **Multi-Functional Appraisals** - mini-technical safety appraisal (TSA) of the Nevada Test Site (NTS) in the



following areas: facility safety review, organization and administration, operations, maintenance, training and certification, emergency readiness, security/safety interface, nuclear criticality safety, radiological protection, personnel protection, and fire protection.

- **Functional Appraisal of Contractor Performance** - radiological safety operations assessment of Sandia National Laboratories' management of the NTS and the Tonopah Test Range (TTR) for the period march 1988 to July 1989
- **Waste Management** - preparation of the operations plan for the Defense Waste Branch, management plan for disposal of defense special case waste, waste retrieval assessment for Greater Confinement Disposal, hazardous waste management business model, and characterization of contamination at Building 650 leachfield at the NTS.

#### BRIEFINGS AND REPORTS:

- **Performance Indicators** - preparation of the quarterly performance indicator reports for DOE-NVO from 1992 to 1994.
- **Trending and Analysis Report** - preparation of the quarterly trending and analysis report per DOE Order 5000.3B from 1992 to 1994.
- **Public Relations** - assistance in public relations activities such as the Tatum Dome Test Site community relations interview held between 4/41-6/91, and the Nevada Test Site community relations interviews held between 9/89-1/90.

#### Performance

- a. **Schedule Adherence:** All PAI tasks were performed on schedule. The original contract was for four years with a one-year extension (1/20/89 to 1/19/94). The contract was extended from 1/1/94 to 1/19/95 because of the excellent services record of PAI.
- b. **Cost Savings Realized:** PAI has exercised strong cost control on both PAI and subcontractors' costs. Savings in the order of 1.5 to 4% were achieved every year since 1989, and such savings are credited to DOE-NVO. PAI's fee was increased from 8% to 8.5%.
- c. **Terminations:** No task terminations have occurred as a result of poor performance.
- d. **Schedule/Cost Overruns:** All tasks were completed on schedule and within authorized budget.
- e. PAI was graded "Excellent" by DOE-NVO for its performance since the start of the contract. PAI personnel have 33 commendation letters from DOE-NVO, including several from the DOE-NVO manager. DOE-NVO nominated PAI for the SBA Award of Excellence. The award was conferred in 1993.



**Client:** Lockheed Martin Energy Systems, Inc.  
P. O. Box 2008, MS-6333  
Oak Ridge, TN 37831

**Contract No.** 28K-AQG57C

**Technical Support Services for Safety Review and Documentation Program**

This \$3.1 million contract, won competitively by PAI in 1993, is a 5-year facility safety and safety analysis support services contract to Lockheed Martin Energy Systems (LMES). PAI continues to support LMES in providing comprehensive facility safety support services including the development of safety assessments, safety analyses, technical safety requirements, hazard screening evaluations, hazard and operability studies, facility and operation descriptions, accident analyses, consequence analyses, and unreviewed safety question determinations. These services typically support both nuclear and non-nuclear DOE facilities, including waste management facilities, where significant impacts on the safety analysis process have most recently been realized. Facility safety support services also continue to include conventional DOE facilities that support defense and energy programs. A brief description of the services provided follows.

**PROGRAM AND PROJECT MANAGEMENT SUPPORT:**

- **Management Training Module for Unreviewed Safety Question Determinations (USQDs)** - preparation of management modules that train facility managers on their responsibilities for USQDs. These training modules supplement the LMES Central Training Organization training documentation.

- **Technical Training Module for USQDs** - preparation of the technical USQD training module consisting of a lesson plan and overhead slides for USQDs. This training module is intended for personnel who are responsible for the preparation of USQDs.
- **Molten Salt Reactor Experiment (MSRE) Independent Review Team** - participation in an independent technical review team for the planning of MSRE decontamination and decommissioning.

**TECHNICAL STUDIES:**

- **Preliminary Hazard Screenings (PHSs) of Oak Ridge National Laboratory (ORNL) Facilities** - preparation of hazard identification, screening, and analyses for numerous ORNL waste management activities.
- **Safety Documentation Support for K-25 Waste Management Division** - provision of engineering services and technical support to prepare and/or assist in the preparation of safety documentation of K-25 Site Waste Management Division (WMD) facilities, sites, and construction projects.

**Hazard Screening of Y-12 Buildings 9624, 9720-12, and 9720-32** - preparation of additional hazard screening identification,



screening, and analyses for Y-12, including the Y-12 Drum Cleaning Station.

#### DOCUMENT PREPARATION AND REVIEW:

- **Review and Update of Y-12 Plant Preliminary Hazard Screening (PHS) Documents** - revision of PHS documentation for approximately 400 Y-12 facilities, including facility walk-throughs.
- **Review and Update of the PHS for Y-12 Bldg. 9720-44** - revision of the preliminary hazard screening document.

#### ES&H AND FACILITY OPERATIONS SUPPORT:

- **Y-12 Plant Restart Support** - provision of two members to work with a multi-discipline team to analyze the safety operations, and preparation and review of evidence packages for the restart of various facilities at the Y-12 Plant.
- **USQDs for Y-12 Bldgs. 9204-2 and 9204-2E** - preparation of USQDs for Building 9204-2 and 9204-2E Storage Area Modifications.

#### BRIEFINGS AND REPORTS:

- **Preparation of Safety Analysis Outline for Uranium Hexafluoride (UF<sub>6</sub>) Cylinder Storage** - preparation of USQD and an annotated outline of a combined Preliminary and Final Safety Analysis Report for UF<sub>6</sub> cylinder yard.
- **MSRE Independent Review Team** - participation in an independent technical review team for planning of MSRE decontamination and decommissioning.

#### Performance:

- a. Schedule Adherence: All tasks have been performed on schedule.
- b. Cost Savings Realized: All tasks were performed under the authorized budget.
- c. Terminations: No tasks have been terminated as a result of poor performance.
- d. Schedule/Cost Overruns: No schedule or cost overruns have occurred.



**Client:** U.S. Department of Energy  
Richland Operations Office  
P.O. Box 500  
Richland, WA 99352

**Contract No.** DE-AC06-92RL12088

**Technical and Management Support Services**

In 1992, PAI Corporation won a three-year contract to provide technical support services to the DOE-RL Performance Assessment Division (PAD). Some typical tasks being performed for DOE-RL PAD include:

**PROGRAM AND PROJECT MANAGEMENT SUPPORT**

- **Defense Nuclear Facilities Safety Board (DNFSB) Support** - comprehensive reviews of facility status, tank farms training and qualification, tank waste remediation system requirements, and site-wide systems engineering. PAI also coordinates reviews and meetings of the DNFSB at Hanford, including drafting of agendas.
- **Issues Management** - development of recommendations for implementation of site-wide issues management.
- **Environmental Restoration and Waste Management (ERWM) Support** - reviews of ERWM programs for compliance with DOE Orders, and environmental laws, regulations, codes, standards, and guidelines.
- **Administrative Reviews** - independent reviews of safety analysis reports, conceptual design reports, procurement

documents and procedures, and quality assurance plans.

- **Systems Engineering** - assistance in development and review of the systems engineering approach to technical programs/projects.
- **Self-Assessment** - assistance DOE-RL line/program divisions in conducting compliance effectiveness, and performance-based self-assessments.
- **Employee Concerns** - assistance in investigation and resolution of identified employee concerns, e.g., tank criticality.

**TECHNICAL STUDIES**

- **Steam Plant Investigations** - engineering reviews of water hammer occurrences, including reviews of plant operations, piping damage, and repairs.
- **Fuel Storage Basin Evaluations** - inspection and analysis of suspect bolts in fuel storage basin roof, and assessment of the nuclear category for modifications to the basin.
- **Tank Waste Investigations** - audits and assessments of tank waste analyses and confirmation of the data validation process.



· **Effluent Treatment Facility**

**Investigations** - field inspection and analysis of cracks in concrete, including verification of findings for an independent engineering study that attributes the cracks to the lack of proper use of shrinkage control joints to control thermal contraction.

· **Appraisal and Assessment Technical Support** - preparation for and participation in technical environment, safety, and health (ES&H) appraisals and assessments, including development of checklists and follow-up corrective actions.

· **Groundwater Contaminant Plume** - evaluation of a groundwater contaminant plume which resulted from a deactivated weapons production reactor.

**DOCUMENT PREPARATION AND REVIEW**

· **Industrial Hygiene Support** - preparation and review of industrial hygiene documents for asbestos and various chemicals.

· **Radiation Protection Support** - review of radiation protection surveillance reports and radiological control reports for compliance with applicable regulations.

**ES&H AND FACILITY OPERATIONS SUPPORT**

· **Nuclear Safety Support** - provision of expert advice to the DOE-RL Manager on Hanford site-wide and specific nuclear safety and operations issues, including recommendations for improvement of the nuclear safety process and procedures.

· **Railroad Operation and Maintenance Support** - technical and management reviews and analyses of safety, health, and fire protection elements of

maintenance (material handling, storage, work surfaces, sanitation, ventilation, and fire protection) and operations (intersection safety, traffic control, and switching).

· **Environmental Support** - preparation of surveillance checklists for compliance with Dangerous Waste Regulations, WAC173-303, and for waste storage facilities; and reviews of Pacific Northwest Laboratory's Integrated Risk Assessment Program, resulting in streamlined program operations.

· **Safety Analysis Review (SAR) and Operational Readiness Review (ORR) Support** - oversight of process and performance of ORRs and RAs, participation as team members on selected ORRs and RAs, and technical and management reviews of identified concerns encompassed in SARs and ORRs.

· **Asbestos Control Support** - reviews and assessments of asbestos abatement, storage, handling, and disposal programs.

· **Occupational Safety and Health Act (OSHA) Surveillance** - surveillances of facilities, laboratories, and construction sites for compliance with OSHA requirements conducted in accordance with DOE Order 5482.1B and the proposed voluntary protection plan.

· **Transuranic (TRU) Waste Management Support** - reviews of TRU waste retrieval operations at the Hanford burial ground in conjunction with a review of the associated safety analysis report.

· **Fire Protection/Prevention** - evaluations of fire protection, prevention, and life safety program and process in accordance with NFPA requirements.



## SAFEGUARDS AND SECURITY TECHNICAL SERVICES

- **Vulnerability Assessment Support** - interviews with security personnel and reviews of classified and unclassified documents for Hanford Tank Farms Vulnerability Assessment.
- **Computer Security Support** - reviews of the DOE-RL unclassified computer security directives.
- **Random Search Procedure Surveillance Support** - review of the Westinghouse corrective action plan in response to a surveillance and follow-up interviews with Westinghouse staff.

## BRIEFINGS AND REPORTS

- **Appraisal, Surveillance and Assessment Reports** - preparation of various reports in support of DOE-RL appraisals, surveillances, and assessments of industrial health, occupational safety, security and safeguards, emergency preparedness, radiation protection, and hazardous materials packaging and transportation.
- **Briefing Support** - assistance in the preparation of briefings for senior DOE-RL managers regarding DNFSB review of Hanford nuclear facilities' operations.
- **Weekly Performance Assessments Meetings** - provide reporting support in weekly safety/performance meeting.
- **Manager Action Items** - assist in developing list of action items for DOE-RL Manager in weekly report.

### Performance

- a. Schedule Adherence: All tasks have been performed on schedule. DOE-RL is

extending the contract for an additional year.

- b. Cost Savings Realized: PAI has consistently provided top quality work. We have also achieved savings between 2% and 20% each year from budgeted costs, and have credited the savings to DOE-RL.
- c. Terminations: No task terminations have occurred as a result of poor performance.
- d. Schedule/Cost Overruns: No schedule or cost overruns have occurred.
- e. The DOE-RL Manager wrote the PAI President to express his satisfaction with PAI's performance. A self-assessment of PAI services was conducted in 1993 by James Hill, a PAI Advisor. During the interview, the DOE-RL manager rated the quality of PAI's work as "excellent." PAI employees received nine letters of commendation/appreciation from DOE-RL.



**Client:** U.S. Department of Energy  
Savannah River Operations Office  
P. O. Box A  
Aiken, SC 29803

**Contract No.** DE-AC09-SR18221

**Technical and Management Support**

PAI services to the Office of the Assistant Manager for Defense Programs (AMDP) include supporting the implementation of the Nuclear Materials Processing (NMP) Facility Performance Improvement Plan; reviewing and assessing technical documents required for startup, restart, and continuous operation of Defense Program (DP) facilities at the Savannah River Site (SRS); and developing and maintaining databases and other management information systems.

The PAI Aiken office is responsible for the performance of all task orders. Technical support from the other PAI offices is provided to support high-priority expedited tasks. A brief description of the major tasks performed under this contract follows.

#### **PROGRAM AND PROJECT MANAGEMENT SUPPORT:**

- **Configuration Management and Training Support** - review of the Separations configuration management plan, Replacement Tritium Facility (RTF) configuration management plan, DOE Order 5700.6C for implementation by AMDP, training implementation matrix (TIM) for tritium and reactor materials, and tritium primer on fundamentals.
- **Facility Representatives Qualifications Support** - development of the qualification materials for

facility representatives in all AMDP facilities.

- **Contract Review for Spent Fuel Program** - support to the Spent Fuel Program in reviewing contracts and technical documents in preparation for receipt of spent research reactor fuel for storage.
- **Cost Reviews** - review of the management and operation (M&O) contractor's preliminary cost estimate for the construction of a plutonium storage facility as part of the DOE reconfiguration program.
- **Corrective Actions Validations and Causal Trending** - review and validation of more than 20 Westinghouse Savannah River Company (WSRC) responses to Tiger Team findings; causal trending via the Occurrence Reporting and Processing System (ORPS) database to identify operating and maintenance O&M weaknesses; and assistance to facility representatives in closure verification for ORPS.

#### **TECHNICAL STUDIES:**

- **Nuclear Safety Studies** - a criticality analysis for eight cases involving Tank 9.6. PAI also performed a review comparing 48 DOE-HQ criteria against the F and H Canyon Facilities



following the "Red Oil" explosion at Tomsk, Russia, for hazard minimization.

- **Operational Readiness Reviews** - technical assistance in conducting operational readiness review/readiness assessment (ORR/RA) for SP, CMF, tritium extraction, and waste recovery. This included closure of ORR findings and validation of the M&O's closure of all issues related to operations and startup.
- **Order Compliance** - assisting the validation review during the startup of F Canyon and HB-Line including order compliance tracking and project scheduling.
- **Contamination Assessment** - review and evaluation of glovebox contamination

#### DOCUMENT PREPARATION AND REVIEW:

- **ORR/RA Planning** - DOE Operational Readiness Review (ORR)/Readiness Assessment (RA) Plans for 321-M, Tritium Special Program (SP) and Container Management Facility (CMF).
- **SAR Reviews** - reviewed technical safety analysis reports for the Uranium Solidification Facility and Replacement Tritium Facility.
- **Justification for Continued Operation (JCO)** - technically reviewed the JCO of the Consolidated Tritium Facility and Reactor Materials.
- **Unresolved Safety Questions** - technically reviewed the unresolved safety questions for the heating, ventilation, and air conditioning exhaust stack liner in H area, Tritium Facility uranium beds, reactor

materials JCO, and Tritium Facility inventory in process vessels.

- **Technical and Operational Safety Requirements Review** - reviewed CTF operational safety requirements (OSRs), and RTF technical safety requirements (TSRs).
- **Fire Protection** - reviewed the H Canyon fire hazards analysis and the HB-Line fire protection and assessment.
- **Replacement Tritium Facility (RTF) Safety Reviews** - reviewed the adequacy of RTF M&O maintenance ORR module, stack monitor calibration alternatives, seismic system single failure criteria review, RTF safety class items, STC system design review, DP-62 safety evaluation review (SER) document, RTF safety class item selection.
- **OSHA Reviews** - preparation of *Review of the Occupational Safety and Health Act Requirements in the Reactor and Spent Fuel Division Facilities* report.
- **Risk Analysis** - preparation of detailed methodology for performing risk analysis.
- **DOE Order Review** - performed technical review of DOE Order 5700.6C.

#### ES&H AND FACILITY OPERATIONS SUPPORT:

- **Operational Safety Assessments** - conduct of Operational Safety Assessments for Separations Division Facilities.
- **Conduct of Operations Assessments** - performance of conduct of operations partial assessment for F Area in



accordance with SRIP 5480.1 9.3A, revealing deficiencies in conduct of operations, procedures, and safety.

- **Radiological Assessments** - performance of radiological assessments, including mapping the locations and sizes of radiologically controlled areas of all AMDP facilities.
- **Startup Assessments in F Canyon** - conduct of assessments and DOE Order compliance reviews on conduct of operations, maintenance, and training in F Canyon in preparation for startup.
- **Health Physics Support** - provision of assessment services associated with the implementation of Health Physics Programs.

#### **BRIEFINGS AND REPORTS:**

- **Annual Assessment Plan** - preparation of the *1993 Separations Annual Assessment Plan Report*
- Prepared the *DOE Operational Readiness Review (ORR)/Readiness Assessment (RA) Plans Reports* for 321-M, Tritium Special Program (SP) and Container Management Facility (CMF).
- **ORPS Reports** - assisted facility representatives in preparation of closure verification reports for ORPS.

#### **Performance:**

- a. **Schedule Adherence:** All projects (tasks) under this contract have been performed on schedule. PAI has consistently maintained compliance with schedule milestones.
- b. **Cost Savings Realized:** All tasks have been performed within authorized budgets. PAI has returned monies saved every year. In 1994, the savings were 5% of the invoice amount.
- c. **Terminations:** No task terminations have occurred as a result of poor performance.
- d. **Schedule/Cost Overruns:** No schedule or cost overruns have occurred.
- e. PAI employees have received six letters of commendations from client officials.



**Client:** U.S. Department of Energy  
Weldon Spring Site Remedial Action Project  
7295 Highway 94 South  
St. Charles, MO 63303

**Contract Number:** DE-AC05-92OR22060

**DOE Weldon Spring Site Remedial Action Management and Technical Support Project**

PAI, as the prime contractor on this task-order type contract, provides on-site management and technical support services to DOE at the Weldon Spring Site Remedial Action Project (WSSRAP).

PAI provides (1) project management, project control, and general administrative support; (2) facility operational management support; (3) environment, safety, and health (ES&H) compliance support, particularly, the Defense Nuclear Facilities Safety Board (DNFSB) compliance support; and environmental restoration and waste management (ERWM) support. This contract involves both routine and quick-turnaround tasks requiring specialized personnel. While PAI typically supplies the needed personnel from its own pool of qualified specialists, subcontractors and consultants are also frequently used to support not only routine tasks requiring highly specialized talent, but also quick turnaround tasks. A brief description of the services provided follows.

#### **PROGRAM AND PROJECT MANAGEMENT SUPPORT:**

- **Project Management and Controls Support** - overseeing the project performance measurement and scheduling systems, fiscal year funding management, Congressional budget request process, and contract management.
- **Conduct of Operations** - creation of programs and procedures for conduct of operations, lessons learned, and self-assessment.
- **Configuration management** - Participation in a DOE task force to review the WSSRAP configuration management system and review the Estimate to Completion and Contingency Forecast reports from the M&O contractor. Support also includes participation in conduct of Performance Measurement System analysis, and assistance in site management information system requirements and baseline configuration management.
- **Plan and Schedule** - engineering support to plan and schedule the implementation of conduct of operations, and preparation and implementation of the DNFSB implementation plan.
- **Review of the Reports** - review of agency progress reports, such as cost and labor management reports, progress tracking system, and project manager's progress report.
- **Contract and Subcontract** - assistance in all contract and subcontract actions for the project, coordinating actions required for DOE initiatives such as lessons learned, self-assessment, and baseline change control board; and assistance with site management information system requirements.
- **Administrative Support** - includes the assistance in the purchase and



management of capital assets procured through DOE site office; coordination of office space for contractor and DOE personnel, and assistance with real estate and highway easements and permits, as required to perform remedial action tasks.

- **Contract Administration/Review** - provision of contract administration/review support, such as the analyses of the cost/schedule control systems and reports for the projects in accordance with DOE Order 4700.1, the review of proposed architectural engineering services contract modifications, and research for Freedom of Information Act requests from labor unions regarding Davis-Bacon wage rates.

#### TECHNICAL STUDIES

- **Strategic Planning** - assistance to DOE-WSSRAP in preparing strategic planning, and preparing Congressional budget requests for WSSRAP projects.
- **Engineering Support** - provision of engineering support in the design, construction, and operation of contaminated water treatment plants and a sludge processing facility by technically overseeing construction and operation of facilities required for site remedial actions.

#### DOCUMENT PREPARATION AND REVIEW:

- **Operational/Maintenance Procedures** - preparation of 46 operational/maintenance procedures for WSSRAP, and dozens of procedures and manuals for WSSRAP management. Examples of activities in documentation review and preparation are:
  - WSSRAP DOE site office technical review of vouchers procedure
  - WSSRAP DOE site office lessons learned procedure

- DOE site office surveillance and walkthroughs procedure
- WSSRAP DOE Site Office Operating Manual
- DOE site office corrective action and tracking procedure
- Surveillance and walkthrough procedure
- operations/maintenance procedures for the water treatment plant and the sludge processing facility

#### ES&H AND FACILITY OPERATIONS SUPPORT:

- **Facility Operations** - assistance in the development of a site-level Conduct of Operations (COO) program, development and/or revision of COO program documentation, and periodic assessments of site operations per the requirements of applicable DOE Orders. Also, assistance in the development of a site-level Conduct of Maintenance (COM) program, including the determination of appropriate program elements, development and/or revision of COM program documentation, and periodic assessments of site operations per the requirements of applicable DOE Orders. Development of a comprehensive WSSRAP self-assessment program, including the development of ESH&QA, management, safeguards and security performance objectives and criteria, and the review and verification of the status of corrective actions derived from previous evaluations.
- **ES&H Compliance** - provision of ES&H compliance support to WSSRAP to (1) determine compliance with requirements of applicable DOE Orders and standards, (2) develop corrective actions, implementation plans, and develop new or revise existing DOE site office procedures, (3) implement corrective actions and generate required reports, and (4) conduct periodic compliance and performance based assessments.



· **ERWM Support** - provision of ERWM support to WSSRAP in preparing the Environmental Restoration and Waste Management Five-Year Plan, Roadmap, and all other ERWM administrative tasks required of the DOE staff. Support also includes responses to stakeholder concerns regarding the startup of a quarry water treatment plant and the release of treated water; and staffing a booth to inform stakeholders on the WSSRAP EIS set up a progress tracking system for developing the EM-40 Five Year Plan.

· **Safety Analysis** - support in the preparation of nuclear and non-nuclear facility safety analysis site-level guidance documentation, and numerous technical reviews of facility safety documentation, including hazard evaluations and safety assessments for the Chemical Stabilization and Solidification (CSS) Pilot Plant, the CSS Full-Scale Operation, the Quarry Water Treatment Plant, and the Quarry Bulk Waste Removal Project. PAI is also involved in performing ongoing operational readiness reviews and readiness assessments.

#### **BRIEFINGS AND REPORTS:**

- Mid-Year and Year-End Review Briefing Materials
- Activity Data Sheets
- Baseline Environmental Management Report
- Progress Tracking System Report

#### **Performance:**

- a. Schedule Adherence: PAI has consistently performed work on time. Each task has been performed within the allotted timeframe.
- b. Cost Savings Realized: Each task on the DOE-WSSRAP program has been accomplished within the budget allocation. Savings in the order of 1.5% to 10% have been credited to DOE by PAI.
- c. Terminations: There have been no terminations on the contract.
- d. Schedule/Cost Overruns: PAI has experienced no schedule or cost overruns on this contract.
- e. PAI has exercised strong quality control on its own work and on subcontractors' work. The PAI Team has received good reviews from the COR. PAI personnel has received six letters of commendation from DOE.



**Client:** Jacobs Engineering Group, Inc.  
125 Broadway  
Oak Ridge, TN 37831

**Contract No.** DE-AC05-93-R2028

**DOE-ORO Environmental Restoration Management and Technical Support Project**

PAI is one of three principal teaming partners with Jacobs Engineering Group, Inc. for Jacobs' Environmental Restoration Technical Support Contract with DOE-ORO. PAI provides environmental restoration technical and management support services that include waste characterization, record searches, conduct of interviews, preparation of sampling and analysis plans, characterization of data, performance of human health and ecological risk assessments, and preparation of reports, document preparation, baseline risk assessments, sampling and analysis of data, and interpretation of data. Tasks include the following.

**PROGRAM AND PROJECT  
MANAGEMENT SUPPORT:**

- **Remedial Investigation/Feasibility Study/Environmental Assessment (RI/FS/EA) Report for Waste Area Grouping (WAG) 1 Gunitite and Associated Tanks Operable Unit (OU), and Treatability Study** - preparation of the plan for this RI/FS and performance of the following activities: data acquisition; interviewing employees to obtain operating data; sampling and analysis plan (SAP); baseline risk assessment; exposure assessment; RI/FS/EA Report and the Treatability Study Work Plan; and computer modeling for determination of risk reduction approaches.
- **Atomic City Auto Parts (ACAP) Removal Action Project** - project management, including characterization activities at the mixed waste site; preparing an SAP; performing sampling and analysis; preparing a Site Health & Safety Plan; interpreting and

characterizing data in terms of contaminant transport; preparing the EE/CA Report; and performing a human health and ecological risk assessment.

**TECHNICAL STUDIES:**

- **Treatability Study for WAG 1 Gunitite and Associated Tanks OU** - development of the ORNL GAAT risk model to determine the extent of gunitite-tank sludge removal necessary to attain the risk target. One important aspect of this model is to predict the radionuclide concentrations at the site for various levels of sludge removal from the tanks. Prediction of radionuclide concentrations involves source term determination and flow and transport modeling.
- **Engineering Evaluation/Cost Analysis (EE/CA) Report, for the WAG 1 Corehole 8 Removal Action** - review of 11 reports dealing with releases of <sup>90</sup>Sr from the storm sewer system into First Creek; preparation of two SAPs and participated in obtaining samples; prepared an exposure assessment, including the exposure-scenario descriptions, and summary of exposure pathways; and preparation of a summary of human health risks.



**DOCUMENT PREPARATION AND REVIEW:**

- **RI/FS for the South Campus Facility** - direct involvement in preparing a range of integrated CERCLA/NEPA RI/FS documents, providing upper-level advice on NEPA strategy, and supporting the development of discrete NEPA documentation for several projects. This study included assessment of existing conditions and both cumulative and long-term effects outside the normal scope of an RI/FS to incorporate NEPA values and satisfy NEPA documentation requirements under DOE NEPA regulations.

**ES&H AND FACILITY OPERATIONS SUPPORT:**

- **ES&H Self-Assessment of the DOE-ORO K-25 Site** - performance of a walkdown safety & health assessment of the K-25 Building and other shutdown process buildings. The walkdown included an assessment of criticality safety and radiation safety controls throughout the buildings; and conduct of an assessment of the overall criticality safety and industrial hygiene programs at the K-25 Site.
- **ORAU South Campus Facility RI/FS and Groundwater Monitoring Plan** - revision of the RI and the baseline risk assessment to accommodate the changes in the approach and to respond to DOE comments. This activity involved the interpretation of and characterization of data for the analysis of contaminant transport including modeling, preparing the RI/FS Report and revising the human health and ecological risk assessment; and re-writing and expanding the Groundwater Monitoring Plan.
- **Uranium Deposit Control at the K-25 Site** - criticality safety assistance to the K-25 Site in developing a program to mitigate criticality occurrences resulting from uranium deposits throughout shutdown process building piping and vessel systems.

- **NEPA EAs for the Mound Lab D&D** - preparation of the EAs, with special consideration given to worker health and safety involving radioactive fission products. The D&D EA considered worker and public safety from the dismantling and/or removal of buildings contaminated with  $^{239}\text{Pu}$ , Tritium,  $^{232}\text{Th}$  and a range of other radionuclides.

**BRIEFINGS AND REPORTS:**

PAI has submitted all required reports on time and to the satisfaction of Jacobs Engineering.

**Performance:**

- a. **Schedule Adherence:** All tasks have been performed on schedule.
- b. **Cost Savings Realized:** All tasks were performed within the authorized budget. PAI returned over \$90,000 in 1994 as a result of cost saving efforts.
- c. **Terminations:** No task terminations have occurred as a result of poor performance.
- d. **Schedule/Cost Overruns:** No schedule or cost overruns have occurred.
- e. The Jacobs Team received an "Outstanding" rating in 1994 from DOE-ORO. PAI employees have received four letters of commendation/appreciation from client officials.



### 2.2.2.3 BDM's Corporate Capabilities and Experience

Founded in 1959, BDM International, Inc. is recognized as a highly qualified, technically oriented, professional services company which, together with its subsidiaries and affiliates, has annual revenues of over \$700 million and over 7,000 employees. BDM maintains over 60 offices throughout the United States and overseas.

BDM Federal, Inc., a subsidiary of BDM International, supports programs which encompass energy research and development; waste management; environmental restoration; environment, safety and health; information and communication systems; design, test and evaluation; manufacturing technology development; Federal facility/installation management and operations; and physical and operational security programs. BDM has a long-standing reputation for providing innovative and reliable scientific, engineering, and management support services to Federal, state, and local governments, international clients and industry. Exhibit 2.2-1 illustrates BDM's diverse client base.

This contract will be supported by BDM Federal's Civil Technology Group. Comprised of over 400 environmental professionals, with 1994 revenues of almost \$99 million, the group has extensive experience with DOE nuclear and non-nuclear programs. BDM's DOE clients range from the Office of Environmental Management through Defense Programs and Fossil Energy to Security Affairs. The Civil Technology Group maintains offices nationwide including Washington, D.C.; Germantown, Maryland; Bartlesville, Oklahoma; and Albuquerque, New Mexico.

The Department of Energy is an important client to BDM, and work for DOE comprises the majority of revenues for BDM's Civil Technology Group. BDM proudly supports DOE's mission by providing quality support services in the areas of waste management, environmental technology development, oil and gas exploration, fossil energy research, safeguards and security, and information technology.

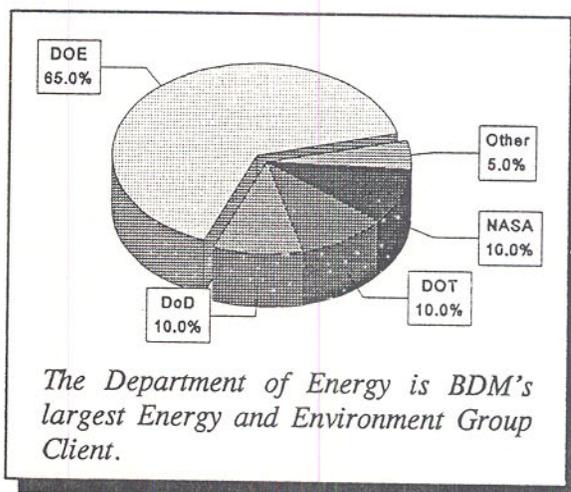


Exhibit 2.2-3 summarizes representative examples of BDM's extensive experience in work of a similar nature to the DOE-Oakland Operations Office requirements. Following the table are detailed descriptions of the work performed during execution of each contract.



**Exhibit 2.2-4  
BDM's Relevant Contract Experience**

Agency	Contract Number and Title	Dollar Amount	Type of Contract	Period of Performance	Types of Services Performed	Contact
U.S. Department of Energy Office of Environmental Management Office of Waste Management (EM-30) Germantown, Maryland	DE-AC01-90DP4806 DE-AC01-92-EW30030 Technical Support Services to DOE EM-30	\$70M	CPFF/LOE	6/90 - 6/97	Support Services, Technical Analysis, Data Management, Program Support	CO: Peggy Fuller (202) 586-1035 COR: James Turi (301) 903-7147
U.S. Department of Energy Office of Defense Waste and Transportation Management Germantown, Maryland	DE-AC0187DP48042 Technical Support Services for DWTM	\$8.2M	CPFF/LOE	4/87 - 6/90	Technical support services, technology evaluation, document management, data management and analysis, administrative support	CO: B. Collins (202) 586-1062 COR: B. Hammond (301) 903-7158
U.S. Department of Energy Office of Safeguards and Security Germantown, Maryland	DE-AC0187DP30364 DE-AC01-93A 10043 (SAIC, Prime; BDM, Sub) Specialized Technical, Management & Support Asst.	\$14M	CPFF	4/87 - 3/96	Safeguards and Security, Policy, Standards and Analysis	CO: B. Collins (202) 586-1062 COR: Valerie Pastore (301) 903-6687
U.S. Department of Energy Office of Environmental Management Office of Technology Development (EM-50) Germantown, Maryland	DE-AC01-93EW00512 (Waste Policy Institute, Prime; BDM, Sub) Technical Support Services	\$41M	CPFF/LOE	11/92 - 11/97	Technical support services, technology evaluation, regulatory support, technology transfer, education, risk management, emergency management, and transportation	CO: Betty Schriber (301) 903-7268 COR: John Wengle (301) 903-7268
U.S. Department of Energy Office of Environmental Management Office of Management and Finance (EM-10) Washington, D.C.	DE-AC01-93EW10279 (Coleman Research, Prime; BDM, Sub) Technical Support Services	\$10MM	CPFF/LOE	2/93 - 2/98	Technical support services, specialized studies, planning, task force support, outreach, and education and training	CO: Betty Schriber (301) 903-7268 COR: Ron Loggerwell (202) 586-8277
Systematic Management Services, Inc. New Orleans, Louisiana	87RF01 87RF03 Plutonium Recovery Program	\$2.6MM	Time and Materials	1/87 - 4/92	Environmental Restoration and Monitoring, compliance with RCRA, CERCLA, NEPA, Safety Analysis, and Probabilistic Risk Assessment	CO: F.N. Acton



**Client:** U.S. Department of Energy  
Office of Environmental Restoration and Waste Management  
Office of Waste Management

**Contract No.** DE-AC01-90DP48063  
DE-AC01-92-EW30030

**Support Services, Technical Analysis, Data Management, Program Support**

BDM and its subcontractor provide specialized assistance to DOE-EM, including the Office of Waste Management (EM-30). The BDM Team supports the EM-30 mission to manage radioactive and other hazardous wastes generated by DOE in a cost effective, safe and efficient manner.

Specific support to the Office of Waste Management is included in the three areas described in the Statement of Work:

- **Technical Assistance.** Participation in Operational Readiness Review Teams, Audit Teams, Technical Task Forces, Validation Teams; Review and Analysis of Baseline Change Control Proposals, environmental regulations, NEPA documents, and Activity Data Sheets; Technical studies in support of waste management, including technical assessments, environmental compliance and safety evaluations, regulatory impact analysis, quality assurance analyses, and cost benefit analyses; literature searches; Analysis, review and preparation of technical documents; and Development of waste minimization plans, waste acceptance criteria, and logic diagrams in support of strategic planning activity.
- **Data Management and Analysis.** Development, enhancement, implementation and maintenance of the Planning, Budget and Control System (PB&C) and the Progress Tracking System (PTS); design, development and implementation of decision analysis

methods and software; and development and maintenance of the EM-30 Budget system.

- **Program and Administrative Support.** Administrative assistance for the attendance at program and project reviews, public hearings, technical briefings, seminars, and workshops; preparation of briefings and other program information materials; training support; ADS report generation; and technical input for responses to Congressional inquiries.

Some examples of the relevant tasks BDM has performed under the current contract include the following:

#### **Technical Assistance**

Provided technical support and prepared follow-up reports as members of the Operational Readiness Review Teams for new project starts and restarts (1H Evaporator at Savannah River, TSCA Incinerator at Oak Ridge, DWPF, WIPP); Audit Teams for the Savannah River High Level Waste Program and West Valley Demonstration Project; Technical Review Groups for review of Safety Analysis Reports (FEMP, WVDP, HWVP); Technical Task Forces (WIPP, Federal Facility Compliance Act); and Major Project Validation Teams (all sites).

Technically reviewed and analyzed: Baseline Change Control Proposals for Line Item Construction Projects to evaluate adequacy of justification; Congressional Amendments to RCRA for development of EM-30 position



papers; Activity Data Sheets for all sites to check for accuracy, edit and make recommendations for improvements; Risk Data Sheets, task description documents; WIPP bin loading activities; Conceptual, Draft, and Proposed Site Treatment Plans; and waste characterization plans.

Provided technical support on the development of DOE-wide waste minimization crosscut plans as required by Secretary of Energy Notice-25-91; Waste Acceptance Criteria for Naval Reactor Program transuranic waste; development of the Baseline Environmental Management Report; development of the Programmatic Environmental Impact Statement (PEIS) for the national EM program; and Logic diagrams to guide resolution of Hanford high-level waste tank safety issues.

Assisted in developing site operations program plans and objectives and track field office progress in meeting these objectives; Safety Analysis Reports; Environmental Assessments; and Environmental Impact Statements.

Provided technical review of regulatory and other program guidance documentation: DOE Order compliance assessments. Federal and State environmental regulations, and preparation of comprehensive compliance reports.

Reviewed proposed and existing waste minimization processes and technologies for cost effectiveness.

Reviewed notices of violation at specific DOE facilities and analyzed options for compliance.

Supported the preparation and review of safety documentation and resolution of findings by oversight groups, analyzing options for compliance and monitoring the sites' resolution of findings.

Prepared WIPP issue papers and fact sheets.

## Data Management and Analysis

Developed, implemented and maintained:

- The Progress Tracking System (PTS), a monthly reporting system that tracks the status of activities (cost, scope and schedule) for each Activity Data Sheet (ADS).
- The Planning, Budget and Control (PB&C) System, which collects all ADSs from Field Offices and brings to Headquarters for review, edit and approval.
- Installed the above systems on the DOE Local Area Network, providing access to all EM-30 Program Managers.

Developed, maintained and provided training for the EM-30 Budget System, which is used to formulate budgets based on ADSs supplied by the PB&C System.

## Program and Administrative Support

Coordinated all logistical arrangements, prepared meeting notices, information materials, agendas, and reports for activities such as: two off-site shipment moratorium meetings in Denver and Dallas; the Public Involvement Program for DOE's first Tri-Party Agreement; the Waste Managers' Conference in Dallas; and the Environmental Restoration and Waste Management Roadshow, which appeared at over 40 locations per year.

Attended technical interchange meetings in support of EM-30 Program managers, to include: Quarterly Waste Managers's Meetings; Technical Information Exchange Meetings; the Chargeback Base Program Working Group Meeting; Mid-Year Program Reviews; and Quarterly Project Status Reviews.



**Client:** U.S. Department of Energy  
Office of Defense Waste and Transportation Management

**Contract No.** DE-AC01-87DP48042

**Management and Administrative Support Services**

BDM provided specialized technical and administrative assistance to the Office of Defense Waste and Transportation Management (DWTM) for the cost effective, safe and efficient operation of the defense waste management complex under the requirements of Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), National Environmental Policy Act (NEPA) and other statutes. Under this contract, BDM provided support in four general task areas:

- Technical studies in support of defense waste program management including technical assessments, environmental evaluations, cost and schedule option evaluations, budget assessment and literature studies;
- Establishing and maintaining new and existing systems for tracking, accounting and control of programs, projects, tasks and documents;
- Document review and preparation; and
- Briefing and review support including administrative assistance and/or attendance at project reviews, public hearings, Congressional hearings and technical briefings.

During this contract, BDM assisted DWTM in developing program strategies and plans to implement regulations; reviewed proposed legislative and regulatory changes and provided technical analysis for DWTM. BDM also assisted DWTM in reviewing regulatory and

management documents, providing technical assistance in response to regulatory oversight.

Tasks relevant to the requirements of DOE-OAK are described in detail.

**Task A - Technology Evaluation and Support**

BDM performed technical reviews of Comprehensive Environmental Assessment and Response Program (CEARP) Phase I summary reports for Rocky Flats, Mound, Kansas City, INEL, Nevada, and other DOE installations. BDM also analyzed the assessment and cleanup procedures required in RCRA and CERCLA and developed a crosswalk of corresponding requirements.

**Task F - Program, Project, Task and Document Management**

Assisted in development of DOE's first and second Environmental Restoration and Waste Management Five-Year Plans, and the Research and Development, Design, Test and Evaluation (RDDT&E) Plan. This work included strategy development, drafting text, and Activity Data Sheet database development and maintenance.

Evaluated DOE Order 4700.1 procedures in relation to potential adaptations to the Environmental Restoration Program. This evaluation included an analysis of UMTRA, FUSRAP, and the Weldon Springs Program. BDM assessed the alternative methods to structure the Environmental Restoration Program into MSAs and MPs to comply with DOE Order 4700.1 requirements. Other activities included:



- Development of a data model for an Environmental Restoration Remedial Actions Program Information System.
- Preparation of FY 1989 and FY 1990 EM Program Execution Guidance, including DP-12 Program Implementation Plans.
- Preparation of a draft Program Management Plan and Program Plan for DP-124 and analyzed FY 1990 program funding to determine amounts obligated to RDDT&E activities.
- Review of A-106 projects and developed a crosswalk with Five-Year Activity Data Sheets.
- Review of SEN-27-90 reports detailing compliance of all DOE nuclear installations. It also developed a standardized format for SEN-27-90 compliance reporting by DOE Field Offices.

#### **Task H - Data Management and Analysis**

BDM supported and implemented management information systems for environmental programs, installing and operating features of the BDM-developed Management Decision Support System on the Waste Information Network. DWTM used this system to record the collection, classification, management and reporting of information from various contractors, field office installations, and release sites. In addition, for the Environmental Restoration and Waste Management Five-Year Plan, BDM developed an information system that allowed each DOE Operations Office to input an Activity Data Sheet for every project at a site. The data included title, key words, 6-year funding, B&R codes, and priority ranking. The data was compiled into reports and analyzed by the Plan Task Force.

#### **Task I - Administrative Support**

BDM provided briefings and review support including administrative assistance and attendance at project reviews, public hearings, Congressional hearings and technical briefings.



**Client:** U.S Department of Energy  
Office of Safeguards and Security

**Contract No.:** DE-AC01-935A 10043, SAIC, Prime

**Specialized Technical, Management, and Support Assistance**

BDM has extensive experience in providing support to DOE safeguards and security (S&S) programs. Since 1987, BDM has provided support to the three divisions of the Office of Safeguards and Security (OSS) at DOE Headquarters. BDM also provided support to the Environmental Management's Office (EM) of Safeguards and Security Management (OSSM) since 1991. BDM provides support to the DOE Albuquerque Operations Office, as a subcontractor to ADC Inc., and manages security at the DOE Bartlesville Research Facility. BDM also provides support for S&S to other federal and state agencies, private corporations and foreign governments.

**Office of Safeguards and Security (OSS):**

The OSS is responsible for promulgating all DOE safeguards and security (S&S) policy. BDM provides direct support to each of the three OSS divisions: policy, field operations, and headquarters operations in all security disciplines including physical security, information security, computer security, protective forces, operations security, personnel security, technical security and nuclear material control and accountability.

The BDM effort began with eight FTEs in 1987 and has expanded to a current 1995 level of 25. Support includes physical security policy review and implementation, design and evaluation of facility security plans, participation in general design criteria and compartmentation development, and testing and evaluation of in-place alarm systems.

BDM has supported OSS in the review and assessment of over 30 DOE program offices to determine the adequacy of existing physical security protection systems and security procedures. Vulnerability assessments have been conducted and analyses have been conducted to identify shortcomings and weaknesses. BDM provided comprehensive support to the DOE participation in the Presidential-directed National Industrial Security Program (NISP). Support included preparing key elements of the NISP operations manual as a member of the physical security working group. BDM has also assisted in the preparation of all of the Reports to the President on the Status of Safeguards and Security for DOE Weapons Facilities that have been prepared since 1992. BDM has also provided significant input since 1992 to the annual reports which are provided to the Secretary of Energy.

BDM conducted an independent evaluation of the 200 person protective force at the DOE Headquarters. The evaluation included all of the elements of the force training and qualification program, firearms verification, equipment suitability. The evaluation included operations security training and awareness programs.

BDM continues to provide support for personnel security activities through direct assistance in availability, duty execution, and operational procedures. BDM supports the implementation and development of the Headquarters personnel security standard operating procedures and developed a computer-based personnel clearance tracking system. This system provides a cost-effective means to track personnel clearance status, the extent of S&S awareness training, and



badge expiration data. Another BDM effort involved the development and implementation of an computer supported system for the DOE historical personnel security files.

BDM developed procedures and systems for the control and protection of classified documents and materials. Classified holdings were reviewed to ascertain compliance with handling, marking, control, and accountability procedures. BDM provided automated tracking systems which were tailored to individual document custodians.

BDM continues to support the Headquarters computer systems officer. The support includes

development, installation, and implementation of the automated office support system. BDM also developed specific administrative security controls to deny access to unauthorized system users.

BDM supported the development and implementation of the Threat Assessment Scheduling System (TASS). The TASS enables the DOE Technical Surveillance Countermeasures (TSCM) Program Manager to optimize the scheduling of TSCM surveys and the allocation of personnel resources.



**Client:** U.S Department of Energy  
Office of Environmental Restoration and Waste Management  
Office of Technology Development

**Contract No.:** DE-AC01-93EW00512, Waste Policy Institute (WPI), Prime

**Technical Support Services**

BDM supports the Office of Technology Development (EM-50) in the performance of its environmental restoration and waste management mission through technology development. BDM provides assistance in the areas of technology evaluation and support; research, development, demonstration, testing and evaluation; technology integration, transfer and outreach; education and training; program, project, task, and document management; public outreach and support; field support for Focus Areas; and risk assessment/management. This includes conducting emergency management and transportation assessments; as well as infrastructure and systems studies.

BDM specifically supports the following areas:

- **Technology Evaluation and Support.** BDM conducts a variety of technology evaluations in support of EM-50 technology Focus Area programs related to removal of hazardous and radioactive contaminants from various environmental media. The level of technical review and evaluation has varied from general assessments of the feasibility and applicability of a technology to more rigorous cost and engineering evaluations of technologies
- **Research and Development, Demonstration, Testing and Evaluation.** BDM supports the RDDT&E planning process, provides input to technology specific strategic plans, budget analyses and justifications, and Five-Year Plan documentation. BDM assists in coordination of technical program review, and evaluation of program plans, program status, and technical reports submitted by field offices and other

organizations. BDM prepares technical information for the preparation of plans and program guidance related to the EM-50 Focus Areas and Crosscutting Programs. In addition, BDM performs technical and environment, safety and health analyses to provide EM-50 with information to allow them to make informed decisions about technology projects.

- **Technology Integration, Transfer and Outreach.** BDM performs activities required to transfer and apply the technology developed through EM-50 activities to specific DOE sites, other government agencies, and to the private sector. It also includes transfer of technologies from the other government agencies and the private sector to DOE.
- **Education and Training.** Assisted in the drafting of the first "Environmental Education Strategic Plan. BDM supported development and review of a file of training courses and documents, coordinated training activities, developed criteria for human factor studies on recruitment and retention, and assisted in performance of manpower assessments.
- **Program, Project, Task and Document Management.** BDM assists in developing and maintaining program management systems for EM-50 use in integrating and controlling programs, projects, tasks, and documentation. BDM conducts analyses of program and project management documents for EM-50 including; management plans, cost reports, schedules, earned value systems, environmental and safety requirements, design



reports and baseline management information. This includes supporting EM-50 in the full range of quality assurance (QA) activity necessary for EM-50 to carry out its QA and oversight responsibilities. In addition, BDM analyzes and supports modifications for decision analysis tools for managing EM-50 activities.

- **Public Outreach and Support.** BDM assists in the conduct of project reviews, public hearings, public briefings, and technical briefings. Additionally, BDM supports the preparation of meeting notices, agendas, briefing materials, meeting documentation and conference reports.
- **Field Support for Focus Areas.** BDM supports technology integration and management by assisting with the coordination of EM's Focus Area and Crosscutting Program activities at field installations.
- **Risk Assessment/Management.** BDM supports EM-50 by ensuring that the best environmental technology solutions are selected for development and implementation based on the risk to workers, the public, and the environment. BDM provides support by establishing criteria for identifying risks to the public health and safety posed by conditions at weapons complex facilities, evaluating the extent of these risks, determining the urgency and priorities for eliminating or minimizing the risks, and assessing the costs of activities required to meet applicable compliance agreements.
- **Emergency Management.** BDM provides support for the development of a comprehensive program to plan for, respond to, and mitigate incidents and emergency situations which occur at EM facilities in support of Waste Operations and Environmental Restoration transition activities or during DOE-wide transportation activities. BDM's support encompasses the EM Facility

Emergency Preparedness Program, the Transportation Emergency Preparedness Program, the EM Occurrence Notification and Reporting Program, and the Hazardous Materials Training Program. BDM has reviewed agreements that provide oversight and emergency response planning assistance to states hosting nuclear or hazardous DOE facilities, conducted start-up and restart Operation Readiness Evaluations for DOE nuclear/hazardous waste facilities, and designed scenarios, performed control, evaluation and reporting of the conduct of exercises; and identification of lessons-learned and areas requiring improvements for emergency response exercises.

- **Transportation.** BDM provides technical assistance in analyses, evaluations, and other work related to the DOE Transportation Management Program. BDM support includes functional technical assistance in review of assessment criteria, preparation of assessment reports, and review and analysis to support DOE administrative and litigation efforts against carriers and carrier associations. BDM supports tasks related to transportation regulatory compliance, program planning and management, training logistics, transportation automation, transportation logistics, conduct of audits and evaluations of transportation operations in the areas of motor carrier evaluations, training, automated systems, emergency response, traffic operations, and vehicle and equipment inspections. In addition, BDM supports the development of program plans and Standard Operating Procedures for transportation operations, in the areas of automation, packaging, technical audits and appraisals, training, logistics, and annual operating plans.



**Client:** U.S. Department of Energy  
Office of Environmental Management  
Office of Management and Finance

**Contract No.:** DE-AC01-93EW10279, Coleman Research, Prime

### Technical Support Services

BDM supports the DOE Office of Environmental Management (EM) Office of Management and Finance (EM-10) by providing engineering and technical assistance and assessments related to overall management, coordination, budget development, and direction of program activities as well as personnel, procurement, and related administrative support. These technical and administrative support services are required to crosscut the EM program and organizations.

BDM actively supports the following work areas:

- Engineering and technical analysis support for environmental restoration and waste management specialized studies
- Quality assurance and assessment
- Planning
- Task forces
- Education, training, and logistical support for outreach activities

BDM developed a special report for the EM Office of Strategic Planning and Analysis which describes and compares waste types, volumes and radioactivity levels at each DOE site resulting from the key manufacturing processes in the development of nuclear weapons.

BDM provided technical and administrative support in the development and implementation of programs needed to meet the requirements of the Federal Facility Compliance Act (FFCA) and the Agreements-in-Principle (AIP) program. Specifically, BDM carried out coordination of action items for renegotiation documents for

South Carolina, Colorado, Alaska, Idaho and California AIPs.

BDM supported technical, logistic, and management services related to Environmental Restoration (ER) and Waste Management (WM) activities in the EM Information Center, safeguards and security, library services, and publication distribution. Representative BDM support includes the following activities:

- Preparation of a response from the DOE Assistant Secretary for Environmental Management to the Office of Non-Proliferation/National Security regarding the Annual Report to the President on Safeguards and Security at Domestic Nuclear Weapons Facilities
- Printing and distribution of the EM Programmatic Environmental Impact Statement (PEIS) Implementation Plan
- Training of staff in use of Internet services
- Librarian and information search services

BDM provided assistance to the Office of Financial Management in the areas of editorial, technical, administrative, logistical, and analytical services related to the development and implementation of those processes and systems associated with the design, development, implementation, and administration of EM's financial/planning/tracking Progress Tracking System (PTS) related systems. Support included software development, testing and implementation, user support, training system development, and related public participation activities.



BDM assisted DOE in the development of procedures and methodologies to implement planning on a systematic basis throughout the EM organization, and in development of the Five-Year Plan document. BDM provided data collection, text drafting, editorial, management, and analytical support in preparation for, and during development of the Five-Year Plans.

BDM assisted DOE in the development of roadmaps as a strategic planning tool. BDM provided support in the development of EM Program Roadmaps involving issue identification, root-cause analysis, and issue resolution. BDM staff assisted in the development of the roadmap methodology, training, facilitation of the development of roadmaps at designated DOE sites, evaluation of the impact of roadmaps, and proposed modification to the methodology to promote improvement.

BDM has supported ER and WM integrated planning by providing data collection, analysis, editorial and management support to the EM Office of Planning in preparation for and during the Strategic Planning process, including development of the Strategic Plan

Implementation Plan, logic charts relating the Strategic Plan, Program baselines, Budget Cycles and Implementation activities; and a charter for the System Management Team for Strategic Plan Implementation. BDM supported all areas of the EM Baseline Environmental Management Report (BEMR).

BDM has provided technical support for Baseline Assessments and High-Ranking Facilities Reviews, and quality assurance and validation assessments of the Surplus Facility Inventory and Assessment database. BDM has provided technical support in activities related to coordination of transition activities at Savannah River, Oak Ridge, Mound, Pinellas, and other DOE Sites. BDM staff have provided analyses of the Federal Facility Compliance Act (FFCA) and other regulatory activities as they apply to facility transition, and supported facility transition programs, Strategic Plans, Management Plans, and Standard Operating Procedures.



**Client:** Systematic Management Services, Inc.  
**Address:** 800 Commerce Road  
New Orleans, LA 70123

**Contract No.:** 87RF01 and 87RF03

**Plutonium Recovery Program**

BDM was a subcontractor to Systematic Management Services, Inc., the prime contractor performing management support to the Rocky Flats Plant (RFP) Plutonium Recovery Modification Project. This effort was initiated to provide technical and administrative support to the DOE Rocky Flats Area Office in the general areas of strategic planning and scheduling environmental remediation; environmental monitoring, compliance with Resource Conservation and Recovery Act (RCRA), Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), and National Environmental Policy Act (NEPA); safety analysis; and Probabilistic Risk Assessment (PRA). Initial duties involved the technical review of CERCLA required Remedial Investigations/Feasibility Studies (RI/FSs) for priority sites at the Rocky Flats Plant; RCRA Closure Plans for operable units; groundwater, surface water and soil sampling plans; and NEPA-required Environmental Assessments.

BDM performed further quality assurance/quality control (QA/QC) evaluations of analytical laboratories that perform environmental field sampling and analysis, including a follow-up review and preliminary audit of an RFP on-site analytical analysis laboratory. Certified Laboratory Protocol (CLP)-related procedures, auditing protocols, and reporting requirements were summarized and presented to laboratory personnel.

BDM regularly conducted technical evaluations of groundwater and surface water sampling procedures and their field implementation. Safety aspects of this effort included development of a Rocky Flats specific safety

analysis and PRA policy consistent with accepted standards and practice, such as the American National Standards Institute (ANSI), Nuclear Regulatory Commission (NRC) and others. Other duties included a risk assessment, and review and audit of the Operating Contractor's past and current performance in all aspects of safety, including Safety Analysis Reviews (SARs).

In addition to major technical document review, BDM had the responsibility to provide technical input regarding daily operations and regulatory compliance such as incident reports by the then current DOE Order 5000.3A and inputs to the CAIRS. To this end, BDM staff continually interacted with the Operating Contractor's RCRA/CERCLA Program Office, Environmental Management Group, and Safety Analysis Group.. BDM personnel also provided technical support to DOE during negotiations and technical review meetings with EPA and the Colorado Department of Health regulators, and provided technical input regarding daily Rocky Flats Plant operations and regulatory compliance.

In the area of safety and environmental auditing, BDM conducted formal audits of radiation monitoring, radiation protection, waste packaging and waste storage procedures in the main plutonium operations building (Building 771). These activities supported DOE-mandated criteria for safe operations. In addition, BDM supported the reporting requirements for a RCRA Part B Application for transuranic mixed waste, a geophysical characterization program, an on-site sewage treatment plan, and a



groundwater, surface water and soils background investigation.



SECTION 2.3

## 2.3 TECHNICAL APPROACH

The following sections present our technical approach to each of the Task Areas in the SOW.

### 2.3.1 TASK 1: PROGRAM AND PROJECT MANAGEMENT

Effective management of a program or project is the single most important determinant of its success. The ADC Team includes qualified, expert staff who not only are skilled in management techniques, but also have years of experience working under DOE directives and requirements. In addition, the Team consists of highly skilled technical personnel with extensive experience in the areas covered within Task 1. Mr. Vito Magliano, the Project Manager, will utilize appropriate subject matter experts to fulfill the requirements of specific task assignments for

DOE-OAK clients. The central management provided by the Project Manager will focus on satisfying the client's current priorities by drawing from the Team as a whole, regardless of company affiliation.

The graphic on the following page highlights the key subtasks within the task area of Program and Project Management, the DOE-OAK mission requirements which must be supported, and the specific approach the ADC Team will provide to satisfy these requirements.



Overview of the Team's Technical Approach to Task One

SUBTASK	DOE-OAK REQUIREMENTS	ADC TEAM SUPPORT ACTIVITIES
Project Management	<ul style="list-style-type: none"> <li>● Ensure proposed projects conform to DOE directives and are consistent with DOE-approved programmatic and institutional plans</li> <li>● Ensure contractors' project management systems provide the necessary discipline and control to successfully complete approved projects within all baselines</li> </ul>	<ul style="list-style-type: none"> <li>● Provide qualified technical and management staff to review project planning documents.</li> <li>● Perform assessments of contractor systems for conformance to DOE Orders and other applicable criteria.</li> </ul>
Economic Analysis of Projects and Program Activities	<ul style="list-style-type: none"> <li>● Validate contractor program and project cost estimates</li> </ul>	<ul style="list-style-type: none"> <li>● Provide technical and financial analysis support in evaluating contractor cost estimates</li> </ul>
Administrative Services in Support of Patent and Legal Programs	<ul style="list-style-type: none"> <li>● Protect the Government's intellectual property interests</li> </ul>	<ul style="list-style-type: none"> <li>● Ensure that all patent application and prosecution filings are complete and timely</li> <li>● Support contract administration functions by ensuring that patent case controls are effective</li> </ul>
Contract Management and Administrative Activities	<ul style="list-style-type: none"> <li>● Effective management of this support service contract to ensure that DOE-OAK clients receive cost-effective and quality response to their task assignments</li> </ul>	<ul style="list-style-type: none"> <li>● Project Manager will be the single point of contact for the COR and will be designated as the ADC Contract Administrator.</li> <li>● Clearly defined management procedures to monitor quality, timelines, and cost</li> </ul>



2.3.1.1 Project Management: Assistance and Support in Reviews, Assessment of Compliance with DOE Orders and Mission, and Assessment of Contractors' Management Systems

SUBTASK	DOE-OAK REQUIREMENTS	ADC TEAM SUPPORT ACTIVITIES
Project Management	<ul style="list-style-type: none"> <li>• Ensure proposed projects conform to DOE directives and are consistent with DOE-approved programmatic and institutional plans</li> <li>• Ensure contractors' project management systems provide the necessary discipline and control to successfully complete approved projects within all baselines</li> </ul>	<ul style="list-style-type: none"> <li>• Provide qualified technical and management staff to review project planning documents.</li> <li>• Perform assessments of contractor systems for conformance to DOE Orders and other applicable criteria.</li> </ul>

As requested by DOE-OAK, the ADC Team will assist the program managers and management staff in the development and review of project management documents in accordance with DOE Orders and other directives. These documents establish the technical, cost and schedule baselines, against which that DOE can assess project progress and determine the impact of the project on an institution.

The ADC Team will assist program managers in tracking, reviewing and analyzing project management documents, such as conceptual design reports, and Construction Project Data Sheets. Document review and evaluation will focus on key elements such as objectives, schedules, resources, controlled milestones, costs, safety, security, and environmental requirements. For projects in support of Energy Research (ER), Nuclear Energy

(NE), and Environmental Management (EM), the focus of our review and evaluation would include institutional impacts as well as interface with the Defense Program activities.

In support of the DOE-OAK oversight responsibility, the ADC Team will conduct assessments and reviews of contractors' project management systems. The scope of these reviews will be determined by the needs of DOE-OAK and may include cost and schedule controls, configuration management, systems designs, and change control process and procedures. The criteria for these reviews would be the approved project management plans, the DOE directives, and sound management practices. The results of our evaluations, including root cause analysis, will be documented in written reports and presented in oral briefings, if requested.



### 2.3.1.2 Economic Analysis of Projects and Program Activities

SUBTASK	DOE-OAK REQUIREMENTS	ADC TEAM SUPPORT ACTIVITIES
Economic Analysis of Projects and Program Activities	<ul style="list-style-type: none"> <li>• Validate contractor program and project cost estimates</li> </ul>	<ul style="list-style-type: none"> <li>• Provide technical and financial analysis support in evaluating contractor cost estimates</li> </ul>

DOE-OAK is responsible for assuring that their contractors' program and project cost and economic estimates are realistic and accurately reflect current and projected economic conditions. This validation requires a multi-disciplinary team of technical and financial/budget staff. The efforts of the team must be coordinated and integrated.

The ADC Team has experience in performing project and program alternatives studies, cost-benefit analysis, cost-effectiveness analysis, cost/savings avoidance analysis, and life-cycle cost analysis with respect to DOE programs in conjunction with domestic budget constraints and regulatory requirements. The Team has assisted DOE in the research and preparation of long-range planning studies in the areas of EM and Defense Programs.

The ADC Team will utilize our knowledge and experience in DOE programs and projects to

ensure that DOE-OAK receives the level of support necessary to minimize effort and maximize funds so that mission and program objectives are not compromised. The Team will do this by adopting cost-effective alternative analyses into the way we do business. These measures are necessary since "business as usual" tends to lead to waste of time, effort, and funds.

ADC Team professionals will provide DOE-OAK with high quality technical and financial analysis support in evaluating contractor cost estimates. The Team will continually be evaluating new and less costly methods which will enhance the quality of every task objective. The ADC Team is dedicated to providing DOE-OAK the economic analysis and validation services it requires in today's environment of constrained budgets and greater accountability. Our managers are not only flexible, but they are able to manage change well.



### 2.3.1.3 Administrative Services in Support of Patent and Legal Programs

SUBTASK	DOE-OAK REQUIREMENTS	ADC TEAM SUPPORT ACTIVITIES
Administrative Services in Support of Patent and Legal Programs	<ul style="list-style-type: none"> <li>• Protect the Government's intellectual property interests</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure that all patent application and prosecution filings are complete and timely.</li> <li>• Support contract administration functions by ensuring that patent case controls are effective.</li> </ul>

The ADC Team proposes to meet DOE-OAK's needs in this area by providing individuals with the skills and experience required by these position qualifications -- Patent Paralegal/Patent Administrator and Legal Research Assistant. The major drivers of the Team's support to DOE-OAK in this area are timeliness and attention to detail.

The DOE-OAK Intellectual Property Law Division provides legal advice on and administers the intellectual property provisions of contracts and subcontracts assigned to the Oakland Operations Office. One of the most important functions performed by the Division is patent prosecution. The filing and prosecution of patent applications in U.S. and foreign patent offices is very important in order to protect the Government's property interests and enhance the U.S. technological base. Patent applications are very complex and require a great deal of work prior to filing. The U.S. Patent document has been called one of the most complicated of all legal documents, with numerous rules for format, content and rigid time requirements. Missing a statutory deadline can result in the loss of valuable property to the Government.

The Patent Paralegal will provide support to ensure all DOE and U.S. Patent and Trademark Office (PTO) requirements are met in the preparation of patent applications and other filings, examine PTO Examiner's findings and determinations to identify type of DOE response required, and monitor status of all legal cases to assure statutory deadlines are met.

Our Legal Research Assistant/Law Library Administrator activities will be a combination of routine (maintenance of the law library) and paralegal support driven by specific DOE-OAK needs. This paralegal support will include research assistance to DOE-OAK legal staff.

The ADC Team patent personnel will assist DOE-OAK in contract administration functions by establishing and maintaining the files of invention disclosures, patent applications, patents issued and associated case controls. Prior to the close-out of contracts and subcontracts assigned to DOE-OAK, we will ensure that these files are thoroughly reviewed to ensure intellectual property rights have been protected.



2.3.1.4 Contract Management and Administration

SUBTASK	DOE-OAK REQUIREMENTS	ADC TEAM SUPPORT ACTIVITIES
Contract Management and Administrative Activities	<ul style="list-style-type: none"> <li>• Effective management of this support service contract to ensure that DOE-OAK clients receive cost-effective and quality response to their task assignments</li> </ul>	<ul style="list-style-type: none"> <li>• The Project Manager will be the single point of contact for the COR and will be designated as the ADC Contract Administrator.</li> </ul>

The Project Manager, Mr. Vito Magliano, has the authority and responsibility for contract management and administrative activities. He will be the designated Contract Administrator for all contractual matters, which includes subcontract administration. Mr. Magliano has many years experience in contract and administrative management, particularly within the DOE complex.

ADC will meet all DOE-OAK reporting requirements, which fall into three categories:

- Financial and resource management reports
- Routine status reports
- Deliverables as prescribed in the individual task orders

The ADC corporate office will provide the basic data for the financial reports. The Project Manager will then compile the data into the

format required by DOE-OAK and for his own cost management requirements. The Project Manager will generate the resource management reports.

Our Team Leaders will prepare routine progress reports, which will be reviewed, approved, and signed by the Project Manager.

Deliverables will be prepared by the ADC Team staff member responsible for the task. The cognizant Team Leader will review the draft; the Project Manager will provide a final review, if necessary.

The ADC Team's administrative personnel will provide the necessary support to the Team. The Team Leader/Program Analyst will coordinate work with the Project Manager in order to prioritize all work in order to meet deadlines.



### 2.3.2. TASK 2: TECHNICAL STUDIES

The ADC Team will assign this task to the Management and Administrative Group. One of the Program Analysts will function as the Team Leader for this group. This individual will assist the Project Manager/Business Manager to provide maximum flexibility and optimum staff utilization, depending on the actual task assignments at any given point in time.

The focus of the Management and Administrative Group will be to maintain the necessary institutional oversight perspective required to maximize our effectiveness on assigned technical studies.

Depending on the nature of the specific task assignments, subject matter experts will be drawn from the other Task areas, such as Environment, Safety, and Health expertise from Task Four (ES&H) and Safeguards and Security specialists from Task Five, Safeguards and Security.

The graphic on the next two pages highlights key subtasks within this task area of Technical Studies, the DOE-OAK mission objectives which will be supported, and the specific activities by which the ADC Team will support DOE-OAK in meeting these objectives.



Overview of the ADC Team's Technical Approach to Task Two

SUBTASK	DOE-OAK REQUIREMENTS.	ADC TEAM SUPPORT ACTIVITIES
Assessing DOE-OAK Assigned Programs in Areas of ES&H and QA Programs	<ul style="list-style-type: none"> <li>• Achieve compliance with broad-scope environmental, safety and health, and quality assurance requirements.</li> <li>• Compare operations to management practices and multi-disciplinary standards stipulated in DOE orders, federal, state, and local regulations</li> </ul>	<ul style="list-style-type: none"> <li>• Provide technical support in the review, and evaluation of contractor program documentation</li> <li>• Assist in verifying compliance of DOE orders and assessing compliance of M&amp;O and other contractors through on-site audits, appraisals, and surveillance</li> <li>• Review and evaluate contractor technical studies, system requirements documents, design specifications, design reports, and operating and maintenance procedures</li> </ul>
Supporting DOE in Review of Requests for Information under FOIA	<ul style="list-style-type: none"> <li>• Ensure FOIA requests are fully coordinated within required timelines</li> </ul>	<ul style="list-style-type: none"> <li>• Provide to the Federal FOIA action staff member the required subject matter expertise for each FOIA request</li> <li>• Plan, design and maintain a FOIA database and tracking system to ensure timelines of deliverables and facilitate trend analysis</li> </ul>
Supporting DOE in Performing Planning Studies	<ul style="list-style-type: none"> <li>• Provide planning support within the context of DOE-OAK's planning hierarchy to facilitate generation of multiple planning documents with consistent themes, objectives and increasing levels of detail</li> </ul>	<ul style="list-style-type: none"> <li>• Provide required planning staff expertise as defined by specific task assignments</li> <li>• Perform mission/program planning for DOE-OAK and assist in oversight of LLNL planning activities</li> </ul>
Fiscal Year Budget Validation and Internal Budget Assessments	<ul style="list-style-type: none"> <li>• Ensure DOE-OAK and M&amp;O budget requests reflect DOE priorities and accurately project the costs associated with achievement of same</li> </ul>	<ul style="list-style-type: none"> <li>• Perform budget and fiscal analysis of DOE-OAK and M&amp;O program budgets</li> <li>• Validate M&amp;O budget submissions and conduct assessments as required by DOE-OAK</li> </ul>
Review and Support in Preparation of Management Directives	<ul style="list-style-type: none"> <li>• Ensure delegations of authorities and requirements are clearly identified for DOE-OAK organizational units and contractors</li> </ul>	<ul style="list-style-type: none"> <li>• Develop DOE-OAK directives using technical subject matter experts and technical writers</li> <li>• Perform analysis of draft DOE directives to identify impacts and recommend reasonable alternatives</li> <li>• Monitor DOE Order revisions in assigned areas to identify need for new or revised directives</li> </ul>



SUBTASK	DOE-OAK REQUIREMENTS.	ADC TEAM SUPPORT ACTIVITIES
Task Team Reviews, Appraisals, Vulnerability Assessments, and Self-Assessments	<ul style="list-style-type: none"> <li>● Implement DOE-OAK's contractor oversight programs to verify M&amp;O contractors' compliance status and to evaluate their performance</li> </ul>	<ul style="list-style-type: none"> <li>● Plan, schedule and conduct reviews, appraisals, Vas and self-assessments with qualified staff to support DOE-OAK task assignments</li> <li>● Perform root cause analysis and develop corrective action plans</li> </ul>
Review of Contract Proposals, Procurements, and Technology Transfer Documentation	<ul style="list-style-type: none"> <li>● Ensure contract proposals and procurement documents comply with DOE-OAK policies, DOE/UC-LLNL contract provisions, and sound business practices</li> <li>● Develop Technology Transfer support in accord with DOE directives and contractual provisions</li> </ul>	<ul style="list-style-type: none"> <li>● Review contract proposals and procurements, as required</li> <li>● Coordinate and assist DOE-OAK's review of the LLNL Technology Transfer program and specific CRADAs</li> </ul>
Development and Implementation of Tracking/Administrative System	<ul style="list-style-type: none"> <li>● Institute strong internal controls to track workload and to ensure quality products are generated on time</li> </ul>	<ul style="list-style-type: none"> <li>● Implement an OAK Task Management Tracking System that provides for DOE-OAK needs</li> </ul>
Review of Technical Documents for Classification	<ul style="list-style-type: none"> <li>● Ensure that original documents are afforded protection commensurate with their content</li> <li>● Ensure that documents are declassified when content no longer possess security risk</li> <li>● Assist DOE-OAK in oversight of LLNL's classification program</li> </ul>	<ul style="list-style-type: none"> <li>● Provide the right technical expertise to meet specific classification task assignment needs</li> <li>● Plan, schedule, and support DOE-OAK Classification Appraisal requirements of M&amp;Os</li> <li>● Implement classification and UNCI periodic training sessions and classification performance testing to support DOE-OAK</li> </ul>



2.3.2.1 Assessing DOE-OAK-Assigned Programs in Areas of NE, ER, ERWM, and ESH&QA Programs

SUBTASK	DOE-OAK REQUIREMENTS	ADC TEAM SUPPORT ACTIVITIES
Assessing DOE-OAK - assigned programs in areas of NE, ER, ERWM, and ES&H and QA programs, including industrial and facility safety and emergency preparedness	<ul style="list-style-type: none"> <li>• Achieve compliance with broad-scope environmental, safety and health, and quality assurance requirements.</li> <li>• Compare operations to best management practices and multi-disciplinary standards stipulated in DOE orders, federal, state, and local regulations</li> </ul>	<ul style="list-style-type: none"> <li>• Provide technical support in the review, and evaluation of contractor program documentation</li> <li>• Assist in verifying compliance of DOE orders and assessing compliance of M&amp;O and other contractors through on-site audits, appraisals, and surveillance</li> <li>• Review and evaluate contractor technical studies, system requirements documents, design specifications, design reports, and operating and maintenance procedures</li> </ul>

The services proposed by the ADC Team will focus on the following:

**Technical Support.** We will assist DOE-OAK in achieving regulatory compliance under OSHA, RCRA, CERCLA, TSCA, CAA, CWA, NEPA and others, and DOE Orders relative to occupational/industrial safety, facility safety, conduct of operations, emergency preparedness, waste management, air-pollution control, water-pollution, environmental assessments, remedial/removal actions, and environmental monitoring. The ADC Team, experienced in technical support for a wide variety of client needs, will use their current knowledge of Orders and regulations to assist DOE-OAK assess its status relative to the stated goals of its operational missions. This expertise will be combined with new or existing information gathered during this contract to perform, or assist in as needed.

DOE Headquarters, as reflected in the annual Environmental Management Program progress reports has established a priority for increased focus the health and safety of workers and the public, the elimination and management of urgent environmental risks, cost effectiveness, and the use of technology development and

outreach programs. Within this context, and within the course of its operations, DOE intends to achieve full compliance with all occupational safety and environmental laws, regulations, and requirements in both letter and spirit. The ADC Team has assisted DOE with such tasks at many field organizations and proposes to assist DOE-OAK in accomplishing this objective at the DOE-OAK facilities.

**Review/Preparation of Documents.** The ADC Team will assist DOE-OAK through technical review and evaluation of existing ESH&QA programmatic documents and regulatory documents prepared by its M&O or other contractors or by the operations office itself. Most of the actions involved are controlled by DOE Orders or other DOE guidance documentation, or Federal, state, and local regulations.

The ADC Team also has experience in document tracking and has developed numerous databases now in use at several operations offices. We will continue to refine these databases to allow both tracking and up-to-date access to technical-bases and supporting comments and documents. Similar systems can quickly be brought on line for DOE-OAK if needed.



The ADC Team will also assist DOE-OAK in its review and evaluation of other reports, assessments, and plans relating to risks; safety analysis; cost estimates for research and development and remediation programs; emergency management; environmental monitoring; and other activities as tasks are assigned.

**Regulations.** The ADC Team has a strong corporate familiarity with those DOE Orders and related Federal laws that deal with:

- environmental compliance and waste management
- nuclear safety
- SARs
- emergency management
- occupational safety and health
- quality assurance
- training and management

Our team members routinely keep up with changes in laws, rules, Orders, and regulations as they are developed, proposed, and promulgated to anticipate the impact on DOE-OAK facilities.

The ADC Team will apply its considerable experience and its catalog of resources to assist DOE-OAK in assessing compliance by its M&O and other contractors with all pertinent regulations.

**Verification.** On-site audits, appraisals, and surveillance provide the means for verifying the state of compliance by the M&O and other contractors with DOE orders, industry standards, and Federal, state, and local regulations. The ADC Team will perform these functions with individuals who have familiarity, both corporately and individually, through hands-on involvement with this process. In this

program, the ADC Team will provide qualified personnel to perform or participate in all aspects of the verification process. We are prepared to provide multi-disciplinary appraisal specialists or certified lead auditors in specified disciplines and to develop plans, checklists, and schedules for audits, appraisals, and surveillance or to support DOE-OAK in performance of these activities by DOE-OAK staff. The ADC Team is capable of preparing and maintaining all documentation pertaining to these activities, including effectuating tracking systems for findings and concerns from both internal and external reviews, if called upon by DOE-OAK to do so.

**Occurrence Analysis and Database Management.** DOE Order 5000.3B establishes a system for reporting unusual occurrences (with some exceptions) in the operation of DOE-owned or operated facilities. Cited among principal concerns are safety and health, security, operations, and the environment. The ADC Team is currently assisting DOE-Nevada Operations Office operate the Nevada Occurrence Reporting System Operating Center (NORSOC) to comply with this Order. The Team has also developed for DOE-OR several data-tracking systems, including Cost Plus Award Fee (CPAF), Correspondence Action Tracking System (CATS), and Deficiency Tracking System (DTS).

The ADC Team can assist DOE-OAK in reviewing current contractor practice for unusual-incident identification and will recommend any necessary actions for improving the information transmittal and approval process. This assistance will include investigation of the events reported and the corrective actions taken. The Team has the capability of analyzing the events for root causes and can identify resolution and generic issues. These efforts will involve development, implementation, and maintenance of management tracking systems that The Team has produced for DOE elsewhere.



2.3.2.2

Supporting DOE in Review of Requests for Information under the Freedom of Information Act (FOIA)

SUBTASK	DOE-OAK REQUIREMENTS	ADC TEAM SUPPORT ACTIVITIES
Supporting DOE in Review of Requests for information under FOIA	<ul style="list-style-type: none"> <li>• Ensure FOIA requests are fully coordinated within required timelines</li> </ul>	<ul style="list-style-type: none"> <li>• Provide to the Federal FOIA action staff member the required subject matter expertise for each FOIA request</li> <li>• Plan, design and maintain a FOIA database and tracking system to ensure timelines of deliverables and facilitate trend analysis</li> </ul>

The FOIA process is designed to assure the public has appropriate access to government documents within stringent response time requirements. Depending on the actual FOIA request, satisfaction of the requirement can involve review of technical, contractual or personnel documents to assure that the intent of FOIA is met without compromising privacy rights, proprietary data restrictions, or national security.

Our Program Analyst in the Management and Administrative Group is knowledgeable of FOIA processes and requirements. As specific requests are received, the Program Analyst (Team Leader) will obtain

the necessary technical expertise from the ADC Team, whether it be related to business, health, classification, etc. Training in this area will be provided by a senior ADC staff member who formerly performed the duties of FOIA Officer for DOE-OAK.

To expedite and control the process, the ADC Team will develop a computer based database. The database will be designed to provide for tracking individual requests and for trend analysis. By categorizing FOIA requests, we can identify procedural refinements which can streamline the process and enhance the cost-effectiveness of this effort; and, determine if potential OPSEC issues exist.



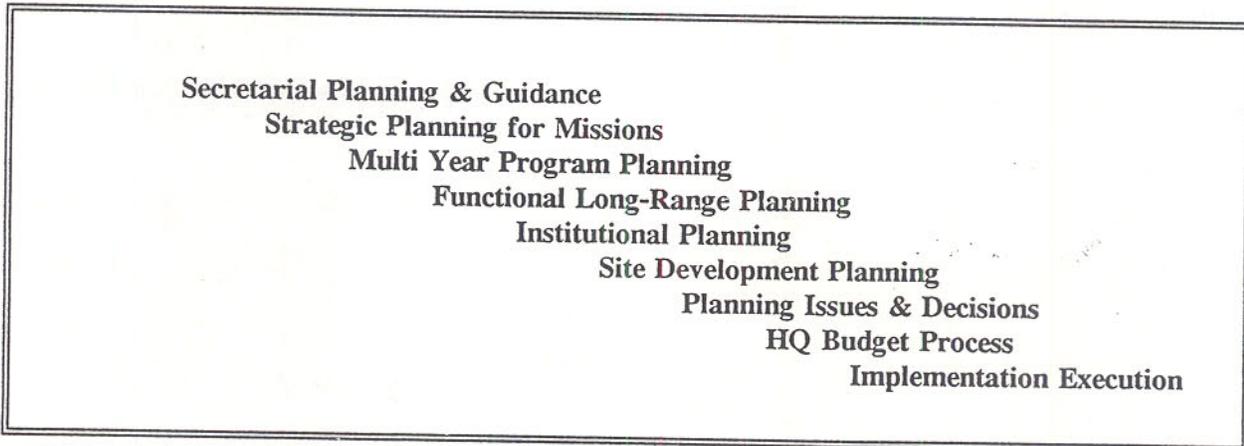
2.3.2.3 Supporting DOE in Performing Planning Studies

SUBTASK	DOE-OAK REQUIREMENTS	ADC TEAM SUPPORT ACTIVITIES
Supporting DOE in performing Planning Studies	<ul style="list-style-type: none"> <li>• Provide planning support within the context of DOE-OAK's planning hierarchy to facilitate generation of multiple planning documents with consistent themes, objectives and increasing levels of detail</li> </ul>	<ul style="list-style-type: none"> <li>• Provide required planning staff expertise as defined by specific task assignments</li> <li>• Perform mission/program planning for DOE-OAK and assist in oversight of LLNL planning activities</li> </ul>

The ADC Team is knowledgeable of the various long-range, institutional, strategic, and site planning activities DOE-OAK conducts, as well as DOE-OAK's roles and responsibilities in each. The requirements for these plans are diverse but it is essential to assure that they are consistent and provide a logical flow; therefore our discussion will reflect this logical flow. In addition, the ADC Team understands that DOE-OAK's planning efforts are two-dimensional. One dimension is developing and implementing mission-oriented plans for DOE-OAK within the context of the Departmental planning process. The second dimension is DOE-OAK's

oversight role of the major laboratory planning efforts. We will provide support to DOE-OAK to ensure that the laboratory process is adequate and that plans are consistent with programmatic guidance and assumptions.

*Planning Hierarchy.* The flow of Departmental planning can best be described as a series of building blocks starting with strategic planning, various long-range plans which are mission-driven or functionally-oriented, institutional plans and site development plans.



*The ADC Team understands the DOE-OAK Planning Hierarchy.*



*Strategic Planning* is not a science. At best, it is a process for helping people think about the objectives they should set if they are to fulfill their mission and then what directions they should move in to go about achieving those objectives. The Department's mission is changing to reflect shifts in national priorities. This translates to new goals for the Department and its M&O contractors:

- Coordinating energy, environmental and economic policy
- Achieving economic security
- Maintaining national security
- Cleaning up Weapons Facilities

For the Lawrence Livermore National Laboratory, the changing mission goals of DOE must be viewed in context with the local environmental mapping data. Significant stakeholders and issues in LLNL's local environment include:

- California's High-Technology Industry and Current Economic Recession
- Vocal community groups and influential elected officials with strong positions on appropriate LLNL missions and programs.
- University of California budgetary constraints and labor relations issues.
- Public and Congressional concern with DOE-OAK oversight of LLNL activities to eliminate waste, fraud and abuse.
- Changing security posture.

*Long-Range Planning* activities include the Multi-Year Program Plans, Information Technology Resources Long-Range Plan, and the Environmental Restoration and Waste

Management Five-Year Plan. The origin of these planning requirements vary and the intended audiences differ. However, they must be consistent with the strategic vision, with the institutional and site development plans, and ultimately, be reflected in the DOE-OAK budget submittal.

*Institutional Planning and Site Development Planning* are closely interrelated and are mature planning processes. DOE policy and procedures for the functions are contained in DOE Orders for Site Development Planning and Institutional Planning By Multi-program Laboratories. The institutional planning process applies to DOE's major multi-program laboratories. The institutional plan is a programmatically oriented plan that provides base line five year planning and 15 year strategic planning. The site plan provides the laboratory's approach to develop real property holdings to support the mission of the site.

The ADC team will provide support for DOE-OAK's review and evaluation of these planning documents. This support, depending on the requirements of DOE-OAK, could range from administrative and graphics support, through coordination among DOE-OAK organizational units, to technical evaluations of the programmatic issues.

The ADC Team's focal point for planning all related task assignments will be the Program Analyst/Team Leader. This person will determine the type and level of expertise required; establish deadlines to satisfy DOE-OAK's needs; coordinate the ADC Team efforts; and, provide the quality control on all deliverables. The Project Manager will be involved in coordination of tasks as needed. During the start-up phase of the contract, preliminary schedules can be developed for the known requirements, such as Institutional and Site Development Planning, which are annual recurring activities.



### 2.3.2.4 Supporting the Fiscal Year Budget Validation and Internal Budget Assessments

SUBTASK	DOE-OAK REQUIREMENTS	ADC TEAM SUPPORT ACTIVITIES
Fiscal Year Budget Validation and Internal Budget Assessments	<ul style="list-style-type: none"> <li>• Ensure DOE-OAK and M&amp;O budget requests reflect DOE priorities and accurately project the costs associated with achievement of same</li> </ul>	<ul style="list-style-type: none"> <li>• Perform budget and fiscal analysis of DOE-OAK and M&amp;O program budgets</li> <li>• Validate M&amp;O budget submissions and conduct assessments as required by DOE-OAK</li> </ul>

The DOE Site Management Division is the principal point of contact with the Oakland based DOE-OAK Chief Financial Officer (CFO) for financial, accounting, budget and management reviews of LLNL activities. One of the CFO's functions is to ensure fiscal integrity of the DOE-OAK budget throughout its life - formulation, execution and analysis. As the single major component of the DOE-OAK budget, the integrity of the LLNL budget is of significant

import especially in light of the national economic situation and the evolving mission of the Laboratory.

The expertise of ADC Team's Program Analyst/Team Leader will provide value-added expertise to the Division and other AMDP personnel engaged in budget validation activities and the internal budget development and assessments.



### 2.3.2.5 Review and Support in Preparation of Directives

SUBTASK	DOE-OAK REQUIREMENTS	ADC TEAM SUPPORT ACTIVITIES
Review DOE Orders and Support Preparation of Directives	<ul style="list-style-type: none"> <li>• Ensure DOE policies and operating procedures are clearly articulated to DOE employees and contractors</li> </ul>	<ul style="list-style-type: none"> <li>• Develop DOE-OAK directives using technical subject matter experts and technical writers</li> <li>• Perform analysis of draft DOE directives to identify impacts and recommend reasonable alternatives</li> <li>• Monitor DOE Order revisions in assigned areas to identify need for new or revised directives</li> </ul>

The ADC Team will provide knowledgeable staff members with extensive DOE-OAK and DOE Directive review and preparation experience. The Directive system includes DOE Orders which are issued by DOE Headquarters organization and local supplemental directives.

An effective directives program requires that Draft DOE Orders received from Headquarters are staffed to the appropriate DOE-OAK and/or LLNL organization(s) in a timely manner and that a tracking and follow up system is employed to assure that staff comments are summarized and receive appropriate DOE-OAK management review. Our experience has shown that modifications to Orders are more successful when they are in the draft stage. Often draft Directives are received from Headquarters with unrealistic response deadlines.

The ADC Team will develop and manage a Draft order tracking and follow-up system. The team will also provide subject matter experts to assist DOE-OAK in its review of Draft Orders.

Another equally important requirement is the drafting and issuance of local DOE-OAK

directives. The local directives implements the policy set forth in the DOE Order and assigns Operations Office responsibilities to specific DOE-OAK organizational units or individuals. Local directives also establishes which OAK contractors are subject to the Order and specifies local requirements.

The ADC Team will assist DOE-OAK in the preparation of the directives. Subject matter experts will draft the directives to assure that OAK policies, authorities, and responsibilities are clearly and concisely communicated in a timely manner.

The ADC Team assisted the DOE-OAK Safeguards and Security Division (SSD) in developing a SSD Directives management process. In this endeavor we are recommending a simplified approach to the development and issuance of SSD directives. We believe that this system is applicable to all of the Assistant Manager for Defense Programs (AMDP) organization.



2.3.2.6 Supporting Task Team Reviews, Appraisals, Vulnerability Assessments and Self-Assessments

SUBTASK	DOE-OAK REQUIREMENTS	ADC TEAM SUPPORT ACTIVITIES
Task Team Reviews, Appraisals, Vulnerability Assessments, and Self-Assessments	<ul style="list-style-type: none"> <li>• Implement DOE-OAK's contractor oversight programs required by DOE-OAK directive to verify M&amp;O contractors compliance status and to evaluate their performance</li> </ul>	<ul style="list-style-type: none"> <li>• Plan, schedule and conduct reviews, appraisals, VAs and self-assessments with qualified staff to support DOE-OAK task assignments</li> <li>• Perform root cause analysis and develop corrective action plans</li> </ul>

The ADC Team will work with DOE-OAK staff to support task team reviews, appraisals, vulnerability assessments and self-assessments. An operational audit conceptual approach will be used. This concept utilizes a logical progression of criteria, cause, and effect. Criteria are developed from existing policies and procedures and generally accepted technical and management principals. Non-compliance with the criteria will be evaluated for the effect of the deficiency. Most importantly, root causes will be identified and remedial action will be recommended.

Our methodology for reviews, appraisals and self-assessments can be broken down into distinct and progressive phases:

- Defining the scope
- Assigning staff
- Planning the activity
- Conducting the appraisal
- Communicating findings and recommendations

The first phase is to define the general scope. Our Team Leader will work with the cognizant DOE-OAK personnel to determine the scope. This phase is necessary to determine the types and numbers of staff that will be required to conduct the review, assessment or appraisal. In the second phase we will assign staff to plan and conduct the review, assessment or appraisal. The ADC Team offers personnel with a wide

range of expertise from which to select a review or assessment team. The Team has significant experience in performing technical and management reviews, appraisal or assessments. We have conducted numerous ES&H and S&S reviews, appraisals and assessments. Some of our staff have significant experience with the U. S. General Accounting Office (GAO).

The third phase is to plan the review, assessment or appraisal. This process includes writing an audit program which specifically sets forth the lines of inquiry and the specific scope; assigning sections of the audit program to specific individuals on the team; and establishing a schedule.

The fourth phase is to conduct the review, assessment or appraisal. Our Team will utilize proven techniques that they have used in previous efforts. Such techniques will represent the most current thinking and methods. These include random sampling, non-directive interviews, and root cause analysis.

The results of the review, appraisal or assessment along with recommendations will be clearly and concisely communicated to those responsible for implementing corrective actions. We have delivered to our clients numerous quality reports and findings resulting from our performance of reviews, appraisals, and assessments.



2.3.2.7 Review of Contract Proposals, Procurement and Technology Transfer Documentation

SUBTASK	DOE-OAK REQUIREMENTS	ADC TEAM SUPPORT ACTIVITIES
Review of Contract Proposals, Procurements, and Technology Transfer Documentation	<ul style="list-style-type: none"> <li>• Ensure contract proposals and procurement documents comply with DOE-OAK policies, DOE/US-LLNL contract provisions, and sound business practices</li> <li>• Develop Technology Transfer support in accord with DOE Order 5800.1A, and contractual provisions</li> </ul>	<ul style="list-style-type: none"> <li>• Review contract proposals and procurements, as required</li> <li>• Coordinate and assist DOE-OAK's review of the LLNL Technology Transfer program and specific CRADAs</li> </ul>

The ADC Team will review contract proposals and procurement documents against established DOE-OAK policy, procedures and regulations. The ADC Team recognizes that the contract with the University of California for the operation of LLNL has unique features. In some cases, generally applicable DOE Orders are not applicable to this contract. In these cases the review will be against applicable University of California policies and procedures and/or prudent business/contract practices. Such practices include: adequate competition, adequate cost and price analysis, clear and concise statement of work, and effective contract administrative provisions.

The ADC Team understands the policy and procedures of DOE directives on Research and Development Laboratory Technology Transfer programs. Our familiarity with DOE-OAK and LLNL as well as our understanding of the priority being given to laboratory technology transfer by the DOE provides a strong base for support in this area. The ADC team will assist

DOE-OAK in their review and processing of Cooperative Research and Development Agreements (CRADAs). Key issues in technology transfer include:

- Ensuring that technology transfer opportunities are adequately publicized so that all capable private sector firms have an opportunity to obtain rights to develop the technology.
- Ensuring that the government maximizes the financial return to the taxpayers.
- Assuring that the balance between exclusive intellectual property rights and the public's interest is maintained.
- Assuring that the firm(s) receiving exclusive rights are committed to developing the technology and will not pigeonhole the technology to protect other products they produce.



2.3.2.8 Development and Implementation of Tracking/Administrative System

SUBTASK	DOE-OAK REQUIREMENTS	ADC TEAM SUPPORT ACTIVITIES
Development and Implementation of Tracking and Administrative Systems	<ul style="list-style-type: none"> <li>Institute strong internal controls to track workload and to ensure quality products are generated on time</li> </ul>	<ul style="list-style-type: none"> <li>Implement a DOE-OAK Task Management Tracking System that provides for all of DOE-OAK needs</li> </ul>

Given the diversity, complexity and externally driven due dates, there is a need for the AMDP to establish an effective internal control system. The system should be capable of:

- Identifying critical events and milestones
- Examining all incoming communications to ascertain whether any action is required
- Designating a responsible organization
- Defining review process
- Establishing due dates

The ADC Team has the technical capability to design the system. The Team currently provides these services to a number of DOE clients. The key will be our approach - working collaboratively with DOE-OAK staff in documenting the system requirements and designing the system to meet those requirements.

Team experience shows that system users must understand and buy into the system for it to be effectively utilized. Only after DOE-OAK understands and approves the ADC Team design, will the implementation process begin. During implementation, the Team will work closely and collaboratively with DOE-OAK staff to ensure that all changes and enhancements are immediately addressed. The ADC Team will

consistently evaluate system performance against user satisfaction and mission requirements to ensure that DOE-OAK staff have the right tool for their job.

As an example of capability and understanding the DOE-OAK environment we provide the following system description for a Directives system.

Upon receipt of the Directive the AMDP staff will designate the responsible Division. The responsible Division will be required to determine whether an OAK implementing directive is required and if so provide a schedule for completion of the directive. Suspense would be established for the determination of whether a OAK directive is required and a schedule of interim milestones for completing the directive. We prefer interim milestones as it provides a means of assessing whether progress is being made toward achieving the end objective. The system would be available to the responsible Division so that the responsible Division has a means to track the due dates for comments from other OAK Divisions and also to assure that the completed directive is distributed to and implemented by appropriate OAK contractors. The system will also ensure that when appropriate the Contracting Officer will transmit the directive to OAK contractors for implementation. Follow-up memoranda will be generated automatically by computer when milestone schedules are not met.



### 2.3.2.9 Review of Technical Documents for Classification

SUBTASK	DOE-OAK REQUIREMENTS	ADC TEAM SUPPORT ACTIVITIES
Review of Technical Documents for Classification	<ul style="list-style-type: none"> <li>• Ensure that original documents are afforded protection commensurate with their content</li> <li>• Ensure that documents are declassified when content no longer poses security risk</li> <li>• Assist DOE-OAK in oversight of LLNL's classification program</li> </ul>	<ul style="list-style-type: none"> <li>• Provide the right technical expertise to meet specific classification task assignment needs</li> <li>• Plan, schedule, and support DOE-OAK Classification Appraisal requirements of M&amp;Os</li> <li>• Implement classification and UNCI periodic training sessions and classification performance testing to support DOE-OAK</li> </ul>

A major strength in the ADC Team's technical approach to accomplishing classification activities comes from our past and present experience in providing classification support to the Department of Energy and other Government agencies. The ADC Team's personnel have had extensive involvement in the preparation, validation, publication, and application of Program Classification Guides for major U.S. Government programs, and they also have years of experience in various technical areas as Authorized Derivative Classifiers.

Mr. James Stuart, the ADC Team's proposed Physical Scientist/Classification Specialist, and one of our key personnel, will be the Lead for classification support task assignments. Mr. Stuart has more than 30 years of classification experience at Lawrence Livermore National Laboratory (LLNL). This appointment of a primary point of contact will provide flexibility to respond quickly to classification task assignments by providing the appropriate classification expertise to support each task assignment. Mr. Stuart will have available to him other members of the ADC Team who are also experienced in DOE and DOD classification. The ADC Team will consult with DOE-OAK to develop advance, proactive planning for classification tasks to facilitate having the right mix of classification skills available at the right time.

The ADC Team will assist in the development of Program Classification Guides, the most important document in the classification arena which establish the baseline for application of appropriate classification and category markings. We understand that the review/comment cycle is critical; accordingly, our approach to classification review/comment has several key elements:

1. Does the draft classification guide address all elements of any given program?
2. Is the draft classification guide written in complete, concise, and accurate terms to allow the reader to apply the appropriate classification and category?
3. Is the draft classification guide consistent with information published in other classification guides (Production, Nagal nuclear propulsion, weapons, transportation safeguards, etc.) and/or local classification guides?

One of the classification-related tasks that members of the ADC Team have been responsible for was assigning the appropriate classification and category to the reports of the annual DOE-OAK surveys of LLNL and SNL/CA. These reports include numerous technical and administrative issues, and go



through numerous reviews and revisions before the final reports are published. The classification review process begins by educating the survey members in the handling and development of the various drafts prior to the initial classification reviews. At each phase, the material is reviewed by the designated Authorized Derivative Classifier in order to determine the appropriate classification and category. The material is then given to another Authorized Derivative Classifier to validate the initial determination. Once Authorized Derivative Classifiers agree on the classification and category, a meeting is set up with the drafter/originator. The purpose of the meeting is to discuss possible re-wording that will adequately address the subject, but will also result in the downgrading or declassification of the document. ADC Team staff

have years of experience as Authorized Derivative Classifiers. This experience has equipped them with the detailed understanding of the roles and responsibilities associated with this activity.

The ADC Team has a complete understanding of the DOE Classification Appraisal program support requirements, and we propose to apply this expertise to develop and maintain an extensive classification reference library of DOE classification guides and other DOE classification references.



### 2.3.3 TASK 3: DOCUMENT PREPARATION AND REVIEW

The ADC Team will provide the technical, managerial, and administrative support required to satisfy DOE-OAK requirements in this area. The ADC Team has a proven track record of reviewing technical reports, performing research and generating documentation in support of their clients' requirements, including DOE-OAK.

The chart on the next page summarizes our overview of the requirements of this task and how our approach will satisfy these requirements.



**Overview of the ADC Team's Technical Approach to Task Three.**

SUBTASK	DOE-OAK REQUIREMENTS	ADC TEAM SUPPORT ACTIVITIES
<p>Assist in the development, research, and/or review, of documentation in support of DOE technical documentation and other written material</p>	<ul style="list-style-type: none"> <li>● Implement a strategy/approach to technical document review and preparation</li> <li>● Ensure that appropriate quality assurance requirements are met, including quality review, technical editing, etc., as needed</li> </ul>	<ul style="list-style-type: none"> <li>● Proactive planning to provide the right mix of experienced personnel at the right time to meet program needs</li> <li>● Flexibility to respond quickly to changing requirements through our large pool of available resources</li> <li>● Proven quality management and control process</li> <li>● Skilled and experienced administrative staff fully trained in documentation and graphics computer generation systems</li> </ul>

In the discussions of Tasks One, Two, Four and Five, we present our technical understanding and approach as they relate to the various topical areas which would be the subject of work performed under this Task. In this section, we discuss our approach for managing this Task to produce quality products within the specified time constraints.

The ADC Team plan is to coordinate these services from the Management and Administrative Group. The Team will develop an annual schedule, based on known requirements, to identify assignments (research, review, development of documents); to specify the staff to be assigned; and to establish timelines. We will make periodic updates to the plan. This plan will be flexible enough to accommodate short-notice client needs. With this plan, the Business Manager can ensure that the appropriate staff are available for each effort and that the supervisory quality control checks are accomplished in a timely manner.

The ADC Team's approach to technical document review and preparation includes the following steps:

1. Determine the required content of the document and the requirements of the

client

2. Select the reviewer(s)/developer(s) who have the requisite skills and experience
3. Follow appropriate and relevant criteria
4. Communicate within the team to incorporate appropriate contributions from other team members
5. Communicate with the client to ensure that needs are understood and well served
6. Adhere to the Quality Assurance and Management Program
7. Provide the deliverable to the client through hard copies, electronic media, and if possible, through oral presentation

The ADC Team's Quality Assurance and Management Program is discussed in depth in Volume III of our proposal. In summary, it charges the Project Manager with the additional responsibility of Quality Management. The Project Manager is accountable for conformance to the following quality review criteria:

- Adherence to standards and formats



- Compliance with contractual requirements
- Internal consistency
- Clarity
- Technical adequacy

Because the ADC Team has conducted several hundred reviews of technical documents for our clients, we have compiled general criteria, specific criteria, and lessons learned, as appropriate, to pass on to reviewers in the spirit of continued improvement. Exhibit 2.3-4, General Criteria for Review of Technical Documents, is derived from *Lockheed Martin Energy System's Guidance for Document Review, Rev. 0*, December 1990. These criteria stress that the purpose of review comments is to help improve the document, and that documents must be clear, accurate, and positive. The ADC Team's reviewer is an ally of the author, not an adversary.

#### Exhibit 2.3-4 General Criteria for Review of Technical Documents

Purpose	Question: Are the efforts and plans described in the document adequate for the expressed purpose?
Requirements	Question: What requirements does the document attempt to satisfy?
Style	Comments must be clear and accurate and must be written in plain English and in a positive and supportive tone. Purpose is to help the author improve the document.
Types of Comments	Distinguish comments into Scientific (general scientific principles), Technical (application of knowledge), Regulatory (adequacy of compliance), and Structural (logic of presentation).
Structure of Review Report	Critical comments: Document meets or does not meet requirements General comments: Are the scientific, technical, regulatory, and structural contents adequate for the purpose? Specific comments: Itemize by section, page, paragraph and line.

(REFERENCE: HAZWRAP Guidance for Document Review, Rev. 0, December, 1990)



A critical part of documentation preparation is the planning and execution of its visual impact. Even the most brilliant engineering analysis, if presented illegibly or unattractively, will not communicate clearly with its intended audience. For this reason, our administrative staff are fully trained in presentation graphics for IBM-compatible and Macintosh personal computers; the ADC Team's personnel have previously performed this work for DOE-OAK. The Team has in-house expertise to

provide support in common computer environments: IBM-compatibles, Macintosh, UNIX, and mini-mainframe workstations. The ADC Team will produce documents and reports that meet high standards for clarity, readability, layout, and professionalism. The Team's current work demonstrates the quality standards we will maintain and improve upon. The security clearances of our staff and facility will ensure complete compliance with requirements for handling Secret Restricted Data, as required.



#### 2.3.4 TASK 4: ENVIRONMENTAL SAFETY & HEALTH (ES&H) AND FACILITY OPERATIONS SUPPORT

Environment, safety, and health (ES&H) facility operations support generally involves support to line management in the oversight of environmental and occupational/individual health and safety programs under OSHA, DOE Orders, and other Federal, state, and local regulations as they pertain to DOE facilities and operations. Related areas include construction safety, conduct of operations, conduct of maintenance, radiological safety, industrial hygiene, fire protection, firearms, and emergency preparedness. The ADC Team will use its experience in conducting reviews, evaluations, verifications, training, and administrative support to assist the DOE-OAK in line oversight.

The ADC Team has the specific skills and resources to effectively support DOE-OAK in all ES&H compliance issues; to assist in the review of documentation; to assist in the development and upgrading of documents; and to realistically assess the impact of changes within DOE.

The chart on the next four pages summarizes the requirements for each functional area within Task Area Four as well as the ADC Team's approach to providing this support for DOE-OAK. Detailed descriptions of our technical approach to each subtask are in the sections that follow.



Overview of the ADC Team's Technical Approach to Task Four

SUBTASK	DOE-OAK REQUIREMENTS	ADC TEAM SUPPORT ACTIVITIES
Safety and Health Programmatic Support	<ul style="list-style-type: none"> <li>• Ensure compliance with DOE occupational safety and health Orders and program guidelines.</li> <li>• Ensure compliance with federal, state and local requirements.</li> </ul>	<ul style="list-style-type: none"> <li>• Provide assistance in developing and implementing safety and health policy.</li> <li>• Assess contractor compliance managerial systems.</li> <li>• Support the OAK Office Federal Employee Occupational Safety and Health (FEOSH) program.</li> <li>• Determine the impact of changes in regulatory requirements on contractor activities.</li> </ul>
Fire Protection Programmatic Support	<ul style="list-style-type: none"> <li>• Ensure compliance with DOE 5480.7A and NFPA Standards, including the Life Safety Code (NFPA 101).</li> </ul>	<ul style="list-style-type: none"> <li>• Assess DOE site facilities by performing facility walk-throughs and assessments.</li> <li>• Evaluate contractor management systems for implementation of fire protection program requirements (e.g., deficiency tracking and closure, etc.).</li> <li>• Evaluate and track contractor equivalency and exemption requests.</li> </ul>
Facility Safety and Safety Analysis	<ul style="list-style-type: none"> <li>• Ensure that nuclear and non-nuclear facility safety documentation accurately reflects facility operation and demonstrates that the overall risk from those operations is acceptable.</li> <li>• Ensure that technical safety requirements are established, and systems for evaluating and tracking unreviewed safety questions are established.</li> </ul>	<ul style="list-style-type: none"> <li>• Review M&amp;O contractor facility safety documentation for compliance with applicable DOE orders.</li> <li>• Assist in the development of site-specific implementing guidelines, if required.</li> <li>• Determine that technical safety requirements support facility operation.</li> <li>• Determine that the risks associated with facility operation are fully characterized and documented.</li> </ul>



SUBTASK	DOE-OAK REQUIREMENTS	ADC TEAM SUPPORT ACTIVITIES
Conduct of Operations and Maintenance Support	<ul style="list-style-type: none"> <li>• Ensure that programs establish the necessary administrative controls and procedures for implementing the requirements of DOE 5480.19.</li> <li>• Ensure that personnel understand their roles and responsibilities with regard to specific programs.</li> <li>• Determine whether or not programs are being properly implemented and monitored through performance-based inspections.</li> </ul>	<ul style="list-style-type: none"> <li>• Assist in the development and/or review of conduct of operations and maintenance programmatic documentation, inspection guidelines, acceptance criteria and standards, facility-specific matrices, and operations and maintenance procedures.</li> </ul>
Configuration Management Support	<ul style="list-style-type: none"> <li>• Ensure that selected plant or site structures, systems, components, software, etc., conform to approved design requirements.</li> <li>• Ensure that plant physical and functional characteristics are accurately reflected in documentation used for design, procurement, operations, tests, maintenance, and training programs.</li> <li>• Ensure that all changes are properly developed, assessed, approved, issued, implemented, verified, recorded, and incorporated into facility documentation.</li> </ul>	<ul style="list-style-type: none"> <li>• Review contractor design criteria, design specifications, and configuration management documentation, including change control procedures, for adequacy.</li> <li>• Support operational readiness review teams to ensure that configuration management issues have been resolved and implemented.</li> </ul>



SUBTASK	DOE-OAK REQUIREMENTS	ADC TEAM SUPPORT ACTIVITIES
Self Assessment Support	<ul style="list-style-type: none"> <li>• Assess and evaluate program performance by conducting formal, periodic, multi-disciplinary review of work activities to identify successes and opportunities for improvement.</li> <li>• Provide for continuous improvement to ensure conformance with ES&amp;H standards.</li> <li>• Establish a uniform framework to focus and expand self-assessment capabilities.</li> <li>• Promote proactive systems to identify problems at all levels</li> <li>• Provide management with accurate and current awareness of conditions at all facilities and in all activities.</li> </ul>	<ul style="list-style-type: none"> <li>• Assist in the development of performance objectives and criteria (POCs).</li> <li>• Assist in the development and implementation of multi-disciplinary, multi-functional self-assessment procedures, implementation plans, program plans, and manuals.</li> <li>• Coordinate lessons-learned, best management practices, and root-cause analysis.</li> <li>• Develop management self-assessment guidelines and training.</li> </ul>
Environmental Activities Support	<ul style="list-style-type: none"> <li>• Achieve compliance with environmental laws, regulations, and requirements.</li> <li>• Respond to Environmental Restoration and Waste Management (EM) Program Office directives.</li> </ul>	<ul style="list-style-type: none"> <li>• Perform site-specific environmental audits, appraisals, and inspections.</li> <li>• Perform technical reviews of environmental program documentation.</li> <li>• Provide specialized technical and regulatory expertise on an as-needed basis.</li> <li>• Perform technical reviews of selected contractor environmental compliance documentation for concurrence.</li> <li>• Assist in contractor oversight and verification of compliance with environmental regulations.</li> <li>• Develop environmental program planning and/or regulatory documentation.</li> </ul>



SUBTASK	DOE-OAK REQUIREMENTS	ADC TEAM SUPPORT ACTIVITIES
Emergency Preparedness Program Support	<ul style="list-style-type: none"> <li>• Review site/facility safety plans, reports, and procedures to ensure compliance with emergency preparedness requirements.</li> <li>• Develop and assist in emergency response exercises at DOE-OAK contractor facilities.</li> </ul>	<ul style="list-style-type: none"> <li>• Review, develop, and maintain emergency preparedness program documentation, including plans, procedures, and reports, such as the Emergency Readiness Assurance Program.</li> <li>• Assist in reviewing documentation against current and changing DOE-defined criteria and updating as required.</li> <li>• Develop and assist in DOE-OAK contractor emergency exercises and in periodic performance appraisals of contractor emergency preparedness programs (e.g., RRE, NEST, RAP, FRMAC, and ARAC).</li> <li>• Provide support/assistance in ESQA to other government entities (FEMA and NRC).</li> <li>• Assist in design and evaluation of DOE-OAK contractor EOCs and equipment.</li> </ul>
Nuclear Safety, Radiation Safety, and Criticality Safety Support	<p>Review of the following elements:</p> <ul style="list-style-type: none"> <li>• Nuclear and radiological plans and procedures.</li> <li>• Dosimetry and bioassay programs.</li> <li>• Facility safety documentation.</li> <li>• Radiological environmental monitoring.</li> <li>• Facility operations criticality safety assessments.</li> <li>• National Emission Standards for Hazardous Air Pollutants (NESHAPs).</li> </ul>	<ul style="list-style-type: none"> <li>• The ADC team anticipates supporting DOE assessments of M&amp;O contractor radiological and nuclear facility plans, procedures, and operations, to ensure that requirements in all functional areas are necessary and sufficient to protect the worker, the environment, and the public from radiological and nuclear hazards.</li> </ul>



2.3.4.1 Safety and Health Programmatic Support

SUBTASK	DOE-OAK REQUIREMENTS	ADC TEAM SUPPORT ACTIVITIES
Safety and Health Programmatic Support	<ul style="list-style-type: none"> <li>• Ensure compliance with DOE occupational safety and health Orders and program guidelines.</li> <li>• Ensure compliance with other federal, state, and local requirements.</li> </ul>	<ul style="list-style-type: none"> <li>• Provide assistance in developing and implementing safety and health policy.</li> <li>• Assess contractor compliance managerial systems.</li> <li>• Support the OAK Office Federal Employee Occupational Safety and Health (FEOSH) program.</li> <li>• Determine the impact of changes in regulatory requirements on contractor activities.</li> </ul>

Of particular importance to DOE is every aspect of site operations in which employees could be hurt, killed, or suffer long-term disabling injuries. In addition to the physical facilities and systems themselves, related safety and health concerns (OSH) include such factors as industrial hygiene, OSHA compliance, construction safety, medical services, fire protection, firearms safety, and facility safety.

The ADC Team will assist DOE-OAK in its oversight of contractor activities, including reviews and evaluations, verification of performance and regulatory compliance, regulatory training, certification status and administrative support. The oversight activities will cover all EH&S subject areas of interest to DOE-OAK. The ADC Team will also assist DOE-OAK in the preparation of OSH implementation plans, and will also provide review and evaluation of other contractor reports, plans, and project or program actions relevant to health and safety. This effort will make use of personnel experienced in similar activities at various DOE facilities including Albuquerque, Oak Ridge,

Savannah River, and the Nevada Test Site. Because of its experience, the ADC Team has the capability to provide an experienced staff licensed and/or certified on their professional disciplines to participate in reviews, surveillances, audits, inspections, and appraisals at DOE-OAK sites, and facilities to identify safety concerns. This effort can be expanded to provide tracking of all findings or concerns resulting from verification or inspection activities, both internal and external to the DOE-OAK organization. The ADC Team provides personnel who are AI and MORT trained and will be available to assist as needed in accident/incident investigation. The Team can also assist DOE-OAK in drafting correspondence relative to health and safety programs (where this does not involve developing DOE plans or policies). DOE-OAK ES&H briefings and program reviews will be produced.

The ADC Team can also provide staff to carry out the DOE/FEOSH program ensuring a safe working environment for federal and support contractor personnel.



### 2.3.4.2 Fire Protection Programmatic Support

SUBTASK	DOE-OAK REQUIREMENTS	ADC TEAM SUPPORT ACTIVITIES
Fire Protection Programmatic Support	<ul style="list-style-type: none"> <li>• Ensure compliance with DOE 5480.7A and NFPA Standards, including the Life Safety Code (NFPA 101), in order to meet DOE highly protected status.</li> </ul>	<ul style="list-style-type: none"> <li>• Assess DOE site facilities by performing facility walk-throughs and assessments.</li> <li>• Evaluate contractor management systems for implementation of fire protection program requirements (e.g., deficiency tracking and closure, etc.).</li> <li>• Evaluate and track contractor equivalency and exemption requests.</li> </ul>

The ADC Team anticipates supporting DOE-OAK in the implementation of mandatory fire protection requirements to assure that the six objectives in DOE 5480.7A are met. In general, the approach to the implementation of these requirements includes the assessment of fire protection program-related and facility-related elements, generally following the highly protected risk/improved-risk approach to fire protection used in standard industry. Current and relevant issues within DOE include (1) evaluation of the fire protection and life safety features in existing facilities, (2) performance of fire protection facility assessments, (3) identification and tracking of findings and corrective actions, and (4) evaluation and tracking of contractor equivalency and exemption requests.

Fire protection program assessments typically include an evaluation of inspection, testing, and maintenance; personnel; engineering design and review; operations; management support; exemptions and equivalencies; adequacy of assessments; administrative controls; temporary measures; and tracking and closure of findings.

Fire protection facility assessments typically include an evaluation of fire hazards, physical fire barriers, life safety considerations, existing fire protection systems (including sprinkler systems, alarm systems, water supplies, etc.), evaluation of special hazards (e.g., Site 300 explosives handling), housekeeping and storage of flammable materials, fire department response, evaluation of a Maximum Credible Fire Loss (MCFL), a Maximum Possible Fire Loss (MPFL), and personnel training.

Other relevant technical issues include the identification of facility safety-related features (e.g., safety class items, limiting conditions for operation, etc.) and phase-out of Halon systems.

From time to time, fire protection program elements contained within facility design documents for new facilities (e.g., the National Ignition Facility) are reviewed to ensure that all fire protection requirements of DOE Orders, other code's and standards, and other federal, state, and local standards have been addressed and that costs of facility fire protection features have been properly defined.



### 2.3.4.3 Facility Safety and Safety Analysis Support

SUBTASK	DOE-OAK REQUIREMENTS	ADC TEAM SUPPORT ACTIVITIES
Facility Safety and Safety Analysis	<ul style="list-style-type: none"> <li>• Ensure that nuclear and non-nuclear facility safety documentation accurately reflects facility operation and demonstrates that the overall risk from those operations is acceptable.</li> <li>• Ensure that technical safety requirements are established, and systems for evaluating and tracking unreviewed safety questions are established.</li> </ul>	<ul style="list-style-type: none"> <li>• Review M&amp;O contractor facility safety documentation for compliance with applicable DOE orders.</li> <li>• Assist in the development of site-specific implementing guidelines, if required.</li> <li>• Determine that technical safety requirements support facility operation.</li> <li>• Determine that the risks associated with facility operation are fully characterized and documented.</li> </ul>

The facilities being operated by DOE-OAK are comprised mainly of non-reactor nuclear and non-nuclear research, development, testing, some process-type facilities and EM facilities. While these facilities have operated safely, significant changes have occurred over the past several years on the methods used in screening and analysis of nuclear and non-nuclear facilities. Many of the major facilities have had Safety Analysis Documents (SADs) and Safety Analysis Reports (SARs) compiled in the past, but these documents must be updated to incorporate additional or revised information—such as the inclusion of facility modifications, external events, revised radiation dose and toxic exposure limits, and frequencies of accidents. Recent changes in documentation requirements, driven to a significant degree by the move from a consequence-based hazard analysis approach to an inventory-based approach, requires a thorough understanding of the hazards analysis, safety analysis, and risk analysis processes.

Assistance to DOE-OAK is performed most efficiently and cost-effectively if the team workers have facility type-specific familiarity; if they are cleared to the appropriate level; if they are knowledgeable/skilled in hazards analysis

methodologies including hazard screening, hazard of operability analysis, accident and consequences analysis, and all other analytical technologies used by DOE; if they are readily available on an as-needed basis; and if they can develop and deploy analytical codes, when necessary. ADC Team members have these qualifications and they have conducted facility safety assessments and analyses for multiple clients since 1987.

The ADC Team will support DOE-OAK extensively in technical review of safety analysis documentation prepared by M&O contractors. The focus of these reviews will be to ensure that the hazards associated with DOE facilities have been correctly identified, categorized, and analyzed; that sufficient mitigating controls have been put in to place; that consequences have been correctly analyzed; that technical safety requirements support facility operations; and that the overall risk to workers, the public, and the environment is acceptable.



Should DOE-OAK require support or expertise in quantitative analysis, the ADC Team has extensive experience in the related areas of seismic and natural phenomena analysis, fault tree/event tree analysis, failure modes and effects analysis, human factors analysis, consequence analysis (including atmospheric and waterborne transport analysis), and structural analysis. The ADC Team is experienced with numerous computer codes essential for SAR analysis and documentation, summarized in Exhibit 2.3-5.

**Exhibit 2.3-5 The ADC Team's Hazards and Safety Analysis Software (Partial Listing)**

Software	Description
CAL3QHC	• A steady-state Gaussian plume model that predicts pollutant concentrations near roadway intersections and calculates the emissions from idling vehicles at intersections
CALINE3	• A steady-state Gaussian plume model for rural and urban areas in simple terrain that estimates concentrations of non-reactive pollutants from highway traffic and is applicable for highway (line) sources
CAP88PC	• Estimates dose and risk from chronic emissions
CTDMPLUS	• A refined point source Gaussian air quality model for rural and urban areas that is utilized for complex terrain (elevations above stack top) applications and is appropriate for elevated point sources
DEGADIS	• Models transport of toxic chemical releases into atmosphere, simulates only one set of predetermined meteorological conditions, and estimates short-term ambient concentrations in unobstructed terrain
DOSE-V4	• Hazard analysis in accordance with CSET-2
DYNA3D	• Non-linear dynamic analysis of structures in three dimensions
EDMS	• A combined emissions/dispersion model for point, area, and line sources that performs pollution assessments at civilian airports and military air bases, produces an emission inventory of all airport sources, calculates concentrations at specified receptors
FDM	• Models sources for fugitive dust emissions and calculates concentrations for particulate matter (PM-10) and toxic materials
IRRAS	• Fault-tree/event-tree analysis, including sensitivity and uncertainty
ISC2	• A steady-state Gaussian plume model for rural or urban areas that models hazardous chemical dispersion from industrial source complex and is applicable for both point and area sources
KENO.5a	• Monte Carlo criticality and neutron flux analysis
MACCS	• Dose and risk from accidental releases



Software	Description
MESOPUFF	<ul style="list-style-type: none"> <li>• A short-term, regional scale puff model that calculates concentrations of up to 5 pollutant species and the model can be used on a case-by-case basis</li> </ul>
MICROAIRDOS	<ul style="list-style-type: none"> <li>• Radiation doses from emissions of radionuclides</li> </ul>
MORSE-CG	<ul style="list-style-type: none"> <li>• Monte Carlo methodology for neutron and gamma-ray in transport</li> </ul>
OCD	<ul style="list-style-type: none"> <li>• A straight-line Gaussian model suitable for point, area, or line sources that determines air quality of coastal regions due to offshore emissions</li> </ul>
PLUVUE2	<ul style="list-style-type: none"> <li>• Estimates visual range reduction and atmospheric discoloration that predicts dispersion, chemical reactions, optical effects, and surface deposition and is applicable for point or area source of emission</li> </ul>
RADSCREEN	<ul style="list-style-type: none"> <li>• Radionuclide dose assessment model (Ohio EPA)</li> </ul>
SAP386	<ul style="list-style-type: none"> <li>• A finite element analysis of linear structural systems</li> </ul>
SDM	<ul style="list-style-type: none"> <li>• A multipoint Gaussian dispersion model for sources located at the shoreline that calculates source impact for fumigation events and is applicable for rural or urban areas and flat terrain</li> </ul>
SURFER/GRAPHER	<ul style="list-style-type: none"> <li>• Two-dimensional and three-dimensional plots and data</li> </ul>
TSCREEN	<ul style="list-style-type: none"> <li>• Screening toxic air pollutant concentrations</li> </ul>
UAM	<ul style="list-style-type: none"> <li>• A three-dimensional, grid type numerical simulation model that is applicable for urban areas having ozone attainment problems and calculates short-term ozone concentrations</li> </ul>



### 2.3.4.4 Conduct of Operations and Maintenance Support

SUBTASK	DOE-OAK REQUIREMENTS	ADC TEAM SUPPORT ACTIVITIES
Conduct of Operations and Maintenance Support	<ul style="list-style-type: none"> <li>• Ensure that programs establish the necessary administrative controls and procedures for implementing the requirements of DOE 5480.19.</li> <li>• Ensure that personnel understand their roles and responsibilities with regard to specific programs.</li> <li>• Determine whether or not programs are being properly implemented and monitored through performance-based inspections.</li> </ul>	<ul style="list-style-type: none"> <li>• Assist in the development and/or review of conduct of operations and maintenance programmatic documentation, inspection guidelines, acceptance criteria and standards, facility-specific matrices, and operations and maintenance procedures.</li> </ul>

The ADC Team has the capability to assist DOE-OAK in the development and implementation of a structured and well-organized oversight and inspection process to effectively monitor M&O contractors in the implementation of conduct of operations (CONOPS) and maintenance. Even though these standards and guidelines are well established in the commercial nuclear industry, the diversity of DOE facilities has created difficulties in the uniform application of CONOPS standards and guidelines within DOE.

The ADC Team will assist DOE-OAK in implementing an effective assessment process to determine if:

- (1) programs exist that establish the administrative controls for implementing the required standards and guidelines
- (2) personnel understand their roles and responsibilities with regard to the program
- (3) the program is being properly implemented and monitored through performance-based inspections and assessments.

Special inspections and audits will be performed as appropriate to verify compliance with established requirements.

Our operations and maintenance experience in performance-based inspections, QA audits, event investigations, and oversight of operating contractors, enhances our capabilities for this task.

The ADC Team can also help develop CONOPS procedures, either for implementation of CONOPS programs, or for the operation of specific facilities.



### 2.3.4.5 Configuration Management

SUBTASK	DOE-OAK REQUIREMENTS	ADC TEAM SUPPORT ACTIVITIES
Configuration Management Support	<ul style="list-style-type: none"> <li>• Ensure that selected plant or site structures, systems, components, software, etc., conform to approved design requirements.</li> <li>• Ensure that plant physical and functional characteristics are accurately reflected in documentation used for design, procurement, operations, tests, maintenance, and training programs.</li> <li>• Ensure that all changes are properly developed, assessed, approved, issued, implemented, verified, recorded, and incorporated into facility documentation.</li> </ul>	<ul style="list-style-type: none"> <li>• Review contractor design criteria, design specifications, and configuration management documentation, including change control procedures, for adequacy.</li> <li>• Support operational readiness review teams to ensure that configuration management issues have been resolved and implemented.</li> </ul>

The configuration management process is an integrated, disciplined, systematic process used to identify existing plant requirements and control changes to ensure that:

- Selected plant structures, systems, components, and supporting computer software conform to the approved design requirements.
- The plant's physical and functional characteristics are accurately reflected in plant documents used for design, procurement, operations, tests, maintenance, and training programs.
- All changes are properly developed, assessed, approved issued, implemented, verified, recorded, and incorporated into the facility's documentation.

Assistance in configuration management includes support in the systematic evaluation, coordination, approval (or disapproval) of implementing documentation, and audit of

approved changes in facility/system configuration. The ADC Team follows the systems engineering process which considers all aspects of system requirements from the earliest stages of design through development, testing, and operations. The process supports project management by ensuring that technical control is integrated with funds, cost, schedule, and performance controls. The process must also support QA requirements in change control.



The ADC Team's approach to configuration management, includes identification, control, verification, and status accounting, as follows:

**Identification.** Includes both the selection of the facility structures, systems, components, and software subject to the program and the selection of the documentation which describes functional and physical characteristics and establishes the baseline.

**Control.** Requires a managed means by which changes to the configuration items are accomplished. This may include the establishment of a review board or other control systems.

**Verification.** Embodies the substantiation that configuration changes either satisfy the original design requirements or comply with approved revisions to those requirements; or resulting configuration changes are complete and in compliance with the approved change.

**Status Accounting.** Addresses the tracking and reporting of the current configuration items and any in-process changes thereto.



### 2.3.4.6 Self-Assessment Support

SUBTASK	DOE-OAK REQUIREMENTS	ADC TEAM SUPPORT ACTIVITIES
Self Assessment Support	<ul style="list-style-type: none"> <li>• Assess and evaluate program performance by conducting formal, periodic, multi-disciplinary review of work activities to identify successes and opportunities for improvement.</li> <li>• Provide for continuous improvement to ensure conformance with ES&amp;H standards.</li> <li>• Establish a uniform framework to focus and expand self-assessment capabilities.</li> <li>• Promote proactive systems to identify problems at all levels.</li> <li>• Provide management with accurate and current awareness of conditions at all facilities and in all activities.</li> </ul>	<ul style="list-style-type: none"> <li>• Assist in the development of performance objectives and criteria (POCs).</li> <li>• Assist in the development and implementation of multi-disciplinary, multi-functional self-assessment procedures, implementation plans, program plans, and manuals.</li> <li>• Coordinate lessons-learned, best management practices, and root-cause analysis.</li> <li>• Develop management self-assessment guidelines and training.</li> </ul>

The self-assessment process forms the basis of evaluating compliance-based and performance-based programs. Within DOE, this process is characterized by continual line management activity that acquires, assimilates, analyzes, and reports through all levels of management (operating contractors, operations offices, and Headquarters offices) the effectiveness, adequacy, efficiency, and economy of all activities. Line management self-assessment activities are complemented and reinforced by line management oversight and independent review. The self-assessment process provides management a diagnostic tool and consists of a variety of evaluation activities that generate a stream of performance and compliance data, includes a formal system for analyzing the data and periodically documenting and communicating status to management, and provides for the prioritization and management of corrective actions. Furthermore, this process provides management with a continuous measure

of performance, enabling performance improvement in weak areas and the dissemination and expansion of strengths. Self-assessment is not limited to meeting compliance standards, but must include the identification of performance criteria to determine the absolute level of performance. Self-assessment will utilize the lessons learned from other appraisals, audits, and evaluations which assess compliance and measure performance.

The ADC Team will assist DOE-OAK in assuring that the scope of the DOE-OAK self-assessment program is comprehensive. That it addresses all ES&H activities, and functional areas and management issues of the M&O contractors on a site-wide integrated basis. The ADC Team will likely assess the maturity of self-assessment programs with the most mature programs having a formal charter, operating procedures, and qualified staff whose roles, responsibilities, and authorities are clearly



defined, formally documented, communicated, and understood.

The ADC Team will use independent verification, performance indicators, occurrence reporting systems, trend analyses, applicable quality assurance program requirements, lessons learned, and root cause analyses in as much as they are available. This process will be augmented with site or facility-specific walk-throughs, as needed.

On those contracts where the ADC Team has supported DOE M&O contractors, we have developed and/or reviewed corrective action plans that address findings, issues, and root causes; strategies to prevent recurrence; developed realistic, appropriately phased and sequenced schedules with measurable milestones for accomplishments; and provided reasonable cost estimates with identified funding sources.



2.3.4.7 Environmental Activities Support

SUBTASK	DOE-OAK REQUIREMENTS	ADC TEAM SUPPORT ACTIVITIES
Environmental Activities Support	<ul style="list-style-type: none"> <li>• Achieve compliance with environmental laws, regulations, and requirements.</li> <li>• Respond to Environmental Restoration and Waste Management (EM) Program Office directives.</li> </ul>	<ul style="list-style-type: none"> <li>• Performing site-specific environmental audits, appraisals, and inspections.</li> <li>• Performing technical reviews of environmental program documentation.</li> <li>• Providing specialized technical and regulatory expertise on an as-needed basis.</li> <li>• Perform technical reviews of selected contractor environmental compliance documentation for concurrence.</li> <li>• Assist in contractor oversight and verification of compliance with environmental regulations.</li> <li>• Develop environmental program planning and/or regulatory documentation.</li> </ul>

DOE has identified the six most important environmental management goals as (1) eliminating and managing urgent risks; (2) emphasizing the health and safety of workers and the public; (3) strengthening management and cost control; (4) demonstrating results; (5) utilizing technology development in problem solving; and (6) strengthening partnerships between DOE and its stakeholders. These goals cross cut the nine program areas that comprise the current DOE budgeting process, including waste management, corrective activities, environmental restoration, uranium enrichment decontamination and decommissioning, nuclear material and facilities stabilization, technology development, compliance and program coordination, transportation management, and analysis, education, and risk management.

Together, these six goals and nine budget programs comprise the framework of DOE's

intent to achieve compliance with the array of federal environmental regulations, including RCRA, CERCLA, SARA, EPCRA, CAA, CEQA, CWA, SDWA, TSCA, NEPA, AHERA, and FIFRA. To facilitate the process of achieving compliance while maintaining cost-effectiveness, many DOE sites are adopting increasingly integrated approaches to environmental management through the use of Site-Specific Advisory Boards (chartered under the Federal Advisory Committee Act), Federal Facility Agreements, stakeholder meetings, and risk-based prioritization/life-cycle cost-benefit techniques, to establish the relative importance of environmental projects vis-a-vis increasingly limited funding.

The ADC team anticipates supporting DOE-OAK environmental activities in three general but functional areas that include (1) performing site-specific environmental audits, appraisals,



and inspections; (2) performing technical reviews of environmental program documentation; and (3) providing specialized technical and regulatory expertise on an as-needed basis.

**Environmental Regulations.** A number of federal environmental statutes (and many parallel state laws), a staggering volume of regulations promulgated pursuant to these statutes and laws, several major DOE Orders, and the upcoming DOE nuclear safety rule-making form the basic technical criteria for radioactive and hazardous waste management activities carried out at DOE sites. The laws, rules, and regulations continue to evolve at a fast pace. The Team has a strong corporate familiarity with essentially all major DOE Orders that deal with environmental compliance and waste management; nuclear safety, SARs, and emergency management; occupational safety and health; and QA, training, and management and with the federal laws they reference. Team members keep up with the changes in laws, rules, Orders, and regulations as they are developed, proposed, and promulgated to anticipate the impact on DOE/OAK facilities.

The ADC Team has assisted and will continue to assist the DOE at many field organizations in verifying compliance with environmental DOE Orders, and will apply its considerable experience and its catalog of resources to assist DOE-OAK in assessing compliance by its M&O and other contractors with all pertinent regulations. The effort will include verifying the application of existing regulations to specific DOE-OAK programs, ascertaining the level of M&O and other contractor compliances, and evaluating the impact of new regulations, standards, and Orders on existing or proposed activities. This information will be incorporated in an accessible database (existing or new, as appropriate).

**Verification.** On-site audits, appraisals, and surveillances provide the means for verifying the state of compliance by the M&O and other contractors with environmental regulations. The

Team staff will perform these functions with individuals who have familiarity, both corporately and individually, through hands-on involvement with this process. The Team has provided similar assistance to DOE/OR to conduct multi-functional appraisals at Oak Ridge National Laboratory (ORNL), the Oak Ridge Y-12 Plant, the K-25 Site and other facilities.

In this program, the Team will provide qualified personnel to perform or participate in all aspects of the verification process. The Team is prepared to provide certified lead auditors in specified disciplines and to develop plans, checklists, and schedules for audits, appraisals, and surveillances or to support DOE-OAK in performance of these activities by DOE-OAK staff. The ADC Team is capable of preparing and maintaining all documentation pertaining to these activities, including effectuating tracking systems for findings and concerns from both internal and external reviews, if called upon by DOE-OAK to do so.

**Management.** The ADC Team can supply background and presentation materials for DOE-OAK briefings and program reviews and will also support DOE-OAK in developing, maintaining, presenting, and controlling schedules and cost information in approved formats through interfaces with M&O and other contractors.

**Implementation and Documentation.** Environmental assessments (EAs) and EISs are means by which the requirements of environmental law are addressed and the public is informed. The Team's experience will assist DOE-OAK in carrying out its responsibilities in this area.

The Team is assisting other DOE field organizations to compile data, produce reports, and organize public meetings to inform members of the public about DOE planned actions. In this area, The ADC Team is capable of assisting DOE-OAK through compiling information pertinent to planning environmental remediation projects for DOE-OAK facilities and operations



and the preparation of EISs for such projects. The Team will work closely with M&Os and other contractors to survey plans and actions and to collect data, conduct extensive literature surveys and technology reviews to establish the project scope and extent, and identify all factors impacting on human health and the environment as tasks in these areas are assigned. As needed in this process, the Team will also perform and document EAs for specific facilities and operations. The information acquired will be assembled in a database for subsequent use in preparing the documentation required under NEPA. The Team can assist DOE-OAK in preparing and presenting information on environmental compliance to the community.

ADC Team personnel have been very active in environmental-compliance support for DOE and other clients in the following areas:

- Clean Air Act (CAA)
- Clean Water Act (CWA)
- Remedial Action (RA)
- Environmental Monitoring

This expertise will benefit DOE-OAK in attaining its objectives for environmental activities.

**Review/Preparation of Documents.** The removal or disposal of waste materials at DOE-OAK inactive sites and operating facilities requires attention to both the technical aspect and regulatory documentation/approval/permitting of handling such materials. Most of the actions involved are controlled by permits under federal, state, and local regulations regarding retrieval, packaging, transporting, and ultimate destruction or storage of the waste materials. Associated with these activities are secondary (though not less critical) impacts on the atmosphere, hydrosphere, and biosphere resulting from the handling and movement of the waste materials; these activities, too, are under regulatory control.

The requirements change frequently, and the permits or approvals documents amended accordingly.

Exhibit 2.3-6, Good Practices for Review of ER Documents, presents the ADC Team's list of evaluation criteria especially developed for ER Documents. Likewise, Exhibit 2.3-7, Specific Questions in the Review of Documents, was developed by the ADC Team for reviewing a group of ER documents with common objectives, format, and content. Finally, Exhibit 2.3-8, Some Lessons Learned in the Review of Technical ER Documents, illustrates the method used by the ADC Team to ensure that past experience is applied to new reviews.

The ADC Team will assist DOE-OAK through technical review and evaluation of existing NEPA documents and other federal or state regulatory documents and permits and proposed applications, filed or planned, by its M&O or other contractors or by the operation office itself. This review and evaluation will be done through a systematic review of past and current sites, facilities, and operations to validate the existence and correctness of all documentation. The Team recently assisted in completion of the Environmental Monitoring Program Plan at the Pinellas Site using such a process.

The Team has experience in document tracking and has developed a permit database now in use at the DOE Oak Ridge Operations Office. We will continue to refine that database to allow both tracking of permit status and convenient access to technical-basis and supporting comments and documents. A similar system could quickly be brought on line for DOE-OAK if needed.

The ADC Team will also assist DOE-OAK in its review and evaluation of other reports, assessments, and plans relating to risks; safety analysis; cost estimates for research and development and remediation programs; emergency management; environmental monitoring; and other activities as tasks are assigned.



### Exhibit 2.3-6 Good Practices for Review of EM Documents

Purpose	Is there a clear statement of the document's purpose? What are the "drivers" (internal and/or external)?
Scope and Applicability	Does the document clearly state its coverage with regard to (1) facilities or facility types? (2) waste types? (3) affected procedures? or (4) affected persons/departments?
Definitions and Acronyms	Are all terms and acronyms defined? Are definitions internally consistent and in accord with those prescribed by regulations, laws, DOE orders, functional requirements, procedures, and the reviewer's understanding of the scientific/technical correctness?
Adequacy	Is the document complete and correct with regard to applicable regulations, laws, DOE Orders, functional requirements, and procedures. Are there any flaws in the understanding of scientific and technical facts?
Consistency and Completeness	Is the document internally consistent? Does it provide a thorough treatment of its stated purpose and scope?
References	Are references current and appropriate?
Appendices	Are all appendixes (1) relevant to the body of the document? (2) cited in the document? (3) identified as to their source? (4) the most current version? and (5) complete (i.e., are additional appendixes needed to support and/or clarify the document)?
Subjective vs Objective	Comments which are based wholly or in part on the reviewer's judgement and/or opinion will be labeled "subjective." All other comments will be labeled "objective."
Editorial	If the document contains one or more deficiencies which are purely editorial in nature, the review should not attempt to identify or mark all such concerns. Rather, the reviewer should make a general comment to this effect, such as: "Although an editorial review of the document was not done, at least one editorial deficiency (e.g., misspelled word, grammatical error, punctuation error) was identified. The document should be reviewed by a qualified technical editor before finalization."

*(REFERENCE: PAI Corporation, 1995)*

### Exhibit 2.3-7 Specific Questions in the Review of Documents



Many CERCLA, RCRA, NEPA, and other documents are similar on the basis of common objectives, format, and/or content. The following questions should be asked:

1. Is adequate justification given for the proposed action?
2. Is the proposed action(s) adequately described?
3. Are the alternative actions adequately described?
4. Are there additional feasible alternatives which should be considered?
5. Have all Applicable or Relevant and Appropriate Requirements (ARARs) been identified?
6. Are the costs of all actions properly and thoroughly evaluated?
7. Are socioeconomic concerns adequately addressed?
8. Are health and safety concerns adequately addressed?

(REFERENCE: PAI Corporation, 1995)



### Exhibit 2.3-8 Some Lessons Learned in the Review of ER Documents

Based upon PAI's experience in reviewing numerous CERCLA, NEPA, and RCRA documents for government clients, certain chronic problem areas have been identified. Examples are as follows:

1. Lack of adequate definition of: (1) contaminants of concern; (2) extent of contamination; (3) action/threshold levels (by contaminant); and (4) affected media (e.g., soils, groundwater, surface water).
2. Most of the CERCLA/RCRA/NEPA documents require a section on "Environmental Setting," which addresses such areas as geology, meteorology, ecology (both aquatic and terrestrial), and hydrology (both surface and subsurface) for the site(s) in question. It is acceptable (and even desirable) to preserve and reuse this material throughout the document generation process. However, quite often these sections are (1) too long; (2) too detailed; (3) filled with jargon which is obscure to the lay reader (particularly with regard to geology); and/or (4) lacking in clear attribution(s) to the source document(s).
3. All three processes (CERCLA, RCRA, NEPA) are driven by some combination of laws, regulations, and project-specific documents such as work plans, Unilateral Administrative Orders (UAOs), and RODs. In the absence of official approval, all investigatory work, design, etc., must not depart from these "drivers." Quite often, departures are found with no apparent backup approval or rationale.
4. Terms need careful technical review to ensure compatibility with applicable regulations. Examples of problems are: (1) use of "hazardous materials" where "hazardous wastes" is intended, and (2) describing a RCRA waste as "flammable" where this term has no meaning in RCRA waste characterization ("ignitable" is usually intended).
5. Lack of proper attention to acronym definitions.
6. Often a situation, procedure, or finding is described as being a "problem" without clarification as to either the exact nature of the problem or a plan for its resolution.
7. Larger documents will inevitably have more than one author. This necessitates that the document undergo rigorous review (both technical and editorial) to either avoid or minimize two problems: (1) differences in writing style; and (2) section-to-section differences in logic, assumptions, etc.

(REFERENCE: PAI Corporation, 1995)



2.3.4.8 Emergency Preparedness Program Support

SUBTASK	DOE-OAK REQUIREMENTS	ADC TEAM SUPPORT ACTIVITIES
<p>Emergency Preparedness Program Support</p>	<ul style="list-style-type: none"> <li>• Review site/facility safety plans, reports, and procedures to assure compliance with emergency preparedness requirements.</li> <li>• Develop and assist in emergency response exercises at DOE-OAK contractor facilities.</li> </ul>	<ul style="list-style-type: none"> <li>• Review, develop, and maintain emergency preparedness program documentation, including plans, procedures, and reports, such as the Emergency Readiness Assurance Program.</li> <li>• Assist in reviewing documentation against current and changing DOE-defined criteria and updating as required.</li> <li>• Develop and assist in DOE-OAK contractor emergency exercises and in periodic performance appraisals of contractor emergency preparedness programs (e.g., RRE, NEST, RAP, FRMAC, and ARAC).</li> <li>• Provide support/assistance in ESQA to other government entities (FEMA and NRC).</li> <li>• Assist in design and evaluation of DOE-OAK contractor EOCs and equipment.</li> </ul>

DOE's Emergency Management System (EMS) provides a comprehensive program to plan for, respond to, and mitigate emergency situations which could occur at a facility. Each facility, field element, and headquarters program office is responsible for developing an emergency program pursuant to DOE 5500-series Orders and their associated DOE Emergency Management Guidelines. A program typically consists of emergency plans and procedures; emergency systems; training plans; drills and exercises; an emergency management team; appraisals; internal and external coordination activities; an incident reporting system; and analysis of operations occurrences.

The DOE Emergency Management System provides a general framework to ensure the readiness of DOE emergency response capabilities during any of the three categories of emergencies: operational emergencies, energy emergencies, and continuity of government emergencies. The development of an integrated emergency management program is achieved through the identification and assessment of potential hazards and the preparation for as well as the response to operational incidents. As conditions change, the EMS must be kept current.

The technical basis for such a program is founded in a comprehensive hazards assessment



to determine the extent and scope of potential hazards. Once hazards have been identified, protective action guides reflect the actions required to protect on-site personnel, public health and safety, and the environment. Site, facility, and Headquarters emergency management plans offer an integrated strategy for implementing procedures to effectively and efficiently carry out responsibilities based upon the thirteen elements for an effective program.

The Emergency Readiness Assurance Program (ERAP), another important element of the DOE emergency management system, is required by DOE Order 5500.10. To comply with this order, each ERAP must address specified areas of emergency management and demonstrate consistency with Program Secretarial Officer (PSO) policy and compliance with DOE Orders. The ERAP is a yearly effort to validate current emergency preparedness capability with a 5-year projection. The report is updated annually.

The ADC Team will assess the current EM Program by reviewing documentation against DOE Order-defined criteria. The ADC Team will conduct inspections, walk-throughs, and interviews to determine the status of compliance.

The ADC Team will also assist in the development and maintenance of the Emergency Management Plan; will provide technical input for procedures, and will assist with other documentation requirements as defined.

Finally, the ADC Team will assist in the initiation and maintenance of a facility ERAP and will analyze current status to provide guidance toward a progressively comprehensive emergency management program.

The ADC approach will be to assist in developing and maintaining the methodology to ensure compliance with DOE Orders:

- DOE Orders 5000.3B—*Occurrence Reporting, 5500 series—Emergency Management System*, and 5530-series—*National Emergency Response*,

capabilities are part of the defense program S/RIDs program thereby requiring a specific method of compliance.

- Assist in ensuring that a hazards assessment has been accomplished to determine the extent and scope of emergency planning and preparedness activities.
- Assist in ensuring that appropriate plans and procedures are written and approved that meet the 13 elements of the EM Guidance and Criteria for Evaluation of Operational Emergency Plans.
- Assist in ensuring that an Emergency Management Training Program has been established and maintained.
- Assist in ensuring that an Emergency Management Drills/Exercise Program has been established and maintained.
- Assist in ensuring that an ERAP has been established and maintained.
- Assist in ensuring that an Emergency Management Appraisal Program has been established and is functioning.
- Assist in ensuring that a self-assessment program has been integrated into the overall EM Program.
- Assist in providing support to other governmental organizations (Federal, State, and local) as required.



2.3.4.9 Nuclear Safety, Radiation Safety, and Criticality Safety Support

SUBTASK	DOE-OAK REQUIREMENTS	ADC TEAM SUPPORT ACTIVITIES
<p>Nuclear Safety, Radiation Safety, and Criticality Safety Support</p>	<p>Review of the following elements:</p> <ul style="list-style-type: none"> <li>• Nuclear and radiological plans and procedures.</li> <li>• Dosimetry and bioassay programs.</li> <li>• Facility safety documentation (also see Section 2.3.4.3).</li> <li>• Radiological environmental monitoring.</li> <li>• Facility operations criticality safety assessments.</li> <li>• National Emission Standards for Hazardous Air Pollutants (NESHAPs).</li> </ul>	<ul style="list-style-type: none"> <li>• The ADC team anticipates supporting DOE assessments of M&amp;O contractor radiological and nuclear facility plans, procedures, and operations, to ensure that requirements in all functional areas are necessary and sufficient to protect the worker, the environment, and the public from radiological and nuclear hazards.</li> </ul>

Nuclear safety includes both radiological safety and criticality safety. The handling and processing of special nuclear materials and other radioactive sources at the DOE-OAK facilities presents hazards associated with radiation, and in rare instances, criticality. The ADC Team proposes to assist DOE-OAK in assessing M&O contractors to ensure that nuclear safety-related program elements are considered in the design, construction, use, and modification of facilities in which radioactive materials are handled. These elements typically include some combination of physical and administrative radiological controls (per the DOE RADCON manual), effluent control and monitoring, process decontamination and decommissioning techniques, and ALARA principles.

Elements of nuclear safety, radiation safety, and criticality safety must be adequately reflected in nuclear facility safety documentation. As a result, this area of technical support frequently extends into the review of facility safety-related

documentation to ensure that the elements of a nuclear safety program are adequately reflected in the establishment of the authorization bases for nuclear facilities.

The ADC Team will support the DOE-OAK as needed in the oversight of:

- Nuclear facility operations
- Effluent monitoring
- Assessment of radiological planning documents and administrative controls
- Assessment of nuclide and special nuclear materials concentrations
- Health physics activities
- Nuclear facility and systems design
- Accident analysis including radiation source



term generation, release, transport, and dose analysis

#### 2.3.4.10 Management Support and Analysis

The ADC Team's approach for management support, and the requirements of the Statement of Work, are provided in the preceding discussion of this task and in our technical approaches to Task Two and Task Three.



### 2.3.5 TASK 5: SAFEGUARDS AND SECURITY TECHNICAL SERVICES

A significant strength of the ADC Team is our capability and extensive experience in developing and implementing safeguards and security oversight plans and supporting procedures for the Department of Energy. ADC previously held the contract for this work at DOE-OAK and is the current Safeguards and Security contractor for DOE-AL.

The overall approach of the ADC Team to Safeguards and Security oversight is graphically presented in Section 2.3.5.2, Exhibit 2.3.-9 in our discussion of No/Short-Notice Surveys and Appraisals. This model illustrates the

Safeguards and Security Division (SSD) oversight plan produced by ADC during the course of our contract with DOE-OAK, which applied the SSD strategy of the conceptual model adopted by the DOE-OAK Assistant Manager for Defense Programs (AMDP).

The chart on the next two pages highlights significant DOE-OAK mission support requirements for this task and briefly summarizes key elements of the ADC Team's technical approach to providing this support. Detailed discussions of each subtask follow.



Overview of the ADC Team's Technical Approach Task Five

SUBTASK	DOE-OAK REQUIREMENTS	ADC TEAM SUPPORT ACTIVITIES
Computer Security	<ul style="list-style-type: none"> <li>● Protection of AISs processing classified information</li> <li>● Reviews and Evaluations of computer security plans</li> <li>● Computer Security Program Requirements</li> </ul>	<ul style="list-style-type: none"> <li>● Identification of the threat and vulnerabilities</li> <li>● Perform evaluations</li> <li>● Prepare reports</li> <li>● Conduct training based on needs and identification of the risk and threat</li> <li>● Planning for the future</li> </ul>
Physical Security	<ul style="list-style-type: none"> <li>● Support DOE-OAK in validating S&amp;S systems to meet compliance requirements for facilities under its jurisdiction</li> <li>● Review electronic access control systems</li> <li>● Provide pre-construction design and technical research support</li> <li>● Test and inspect installed systems</li> <li>● Participate in Inspections, Surveys and Special Operations</li> <li>● Prepare various reports</li> </ul>	<ul style="list-style-type: none"> <li>● Plan, schedule and conduct S&amp;S surveys and system validation activities based on risk and trend analysis</li> <li>● Plan and conduct S&amp;S Systems Performance Testing</li> <li>● Validate Facility designs</li> </ul>



SUBTASK	DOE-OAK REQUIREMENTS	ADC TEAM SUPPORT ACTIVITIES
Information Security (IS)	<ul style="list-style-type: none"> <li>● Controlling and handling all classified documents</li> <li>● Maintain database</li> <li>● Prepare documents for transfer</li> <li>● Report Security Infractions</li> <li>● Destroy classified documents</li> <li>● Identify documents improperly marked</li> <li>● Maintain retention records</li> <li>● Ensure accurate management of documents maintained by Personnel Security Branch</li> <li>● Plan and conduct quarterly audits</li> <li>● Assist in the maintenance of the OAK accountability system</li> <li>● Develop and maintain Security awareness and Training programs</li> <li>● Maintain a filing and tracking system for Classified Mailing Addresses</li> <li>● Perform special evaluations</li> </ul>	<ul style="list-style-type: none"> <li>● Operate the CDCC</li> <li>● Conduct random validation of classified holdings</li> <li>● Provide IS planning support and conduct required inventories</li> <li>● Ensure that all transactions for classified documents; mailing; destruction; transfers etc. are accomplished in accordance with prescribed requirements.</li> </ul>
Foreign Visits & Assignments (FVA), Security Education and Training	<ul style="list-style-type: none"> <li>● Administrative support</li> <li>● Technical support</li> <li>● Review security plans</li> </ul>	<ul style="list-style-type: none"> <li>● Prepare complete and concise packages for FVA actions</li> <li>● Performance test FVA compliance requirements at contractor facilities</li> <li>● Conduct inspections of procedures</li> <li>● Review and document off-hour activities.</li> </ul>



2.3.5.1 Computer Security

SUBTASK	DOE-OAK REQUIREMENTS	ADC TEAM SUPPORT ACTIVITIES
Computer Security	<ul style="list-style-type: none"> <li>● Protection of AIS Systems processing classified information</li> <li>● Reviews and Evaluations of computer security plans</li> <li>● Computer Security Program Requirements</li> </ul>	<ul style="list-style-type: none"> <li>● Identification of the threat and vulnerabilities</li> <li>● Perform evaluations</li> <li>● Prepare comprehensive reports</li> <li>● Conduct training based on needs and identification of the risk and threat</li> <li>● Planning for the future</li> </ul>

Our Team is prepared to assist DOE-OAK in identification of computer security program needs and presentation of the required awareness education programs. Our approach, accompanied by managerial commitment to implementation of an aggressive computer security program, will not only meet, but exceed DOE-OAK expectations.

**Protection of Automated Information System (AIS) Systems Processing Classified Information**

We understand the current threat and are able to meet the challenge programmatically and technically. The ADC Team's approach to computer security combines exceptional leadership, rigorous education at all levels, working partnerships with our customers, and a emphasis on rational, well-founded computer security programs. We recognize that the competition for budgetary resources will make implementation of some programs more difficult than others. Accordingly, the ADC Team's utilization of risk analysis is a most important tool. Risk analysis is applied to important

corporate decisions as well as client task management issues. This analysis often reveals a more innovative, efficient way to achieve desired results.

When performing vulnerability, risk assessments or self assessments, we have found that violations fall into these main categories: 1) failure to follow established security procedures; 2) failure to obtain approval for processing classified and unclassified sensitive information on a specific computer; 3) failure to perform required sanitizing procedures on the software and hardware between sessions; 4) improper use of modems on classified machines; 5) attaching unapproved devices to a classified system; 6) improper protection and accountability of classified media; and 7) unapproved destruction of classified storage media. A root cause correction of these violations can be summarized as, a Security Awareness training program that continuously reenforces the correct thinking in daily operations.

The ADC Team's combined talents cover every aspect of the computer and telecommunications



field -- from a stand-alone personal computer to UNIX Engineering Workstations to a Cray computer at NASA-Ames. We have the capability to analyze a site as a whole or by its component parts. The ADC Team has many years of experience in computer services and is equally experienced in safeguards and security. The ADC Team has the knowledge and experience essential to perform a comprehensive task such as computer security by integrating technical computer expertise with safeguards and security expertise, such as Information Security.

Once an Automated Information System produces information the guidelines for the handling of classified information must be followed, for example, the proper marking of a paper document with the level and category of classification. Integration of the security disciplines can be accomplished provided the information is presented in a logical, effective and to the point manner that is relevant to the audience.

#### **Reviews and Evaluations of Computer Security Plans**

The ADC Team will perform an in-depth evaluation of the accreditation process and re-accreditation. The information explosion presents a constant, ever-changing challenge. The initial accreditation is an intensive event which involves all security functions for every program element -- physical, personnel, computers, telecommunications, policies and procedures, access controls, countermeasures, TEMPEST evaluations, testing, training, and identification of life cycle support. The re-accreditation process has been identified as a deficient area across the complex. A strong computer security education program helps ensure that computer security requirements are understood.

The ADC Team incorporates management planning and analysis in every aspect of business. Among their many complex

managerial tasks, our managers place a very high priority on identification of risk and vulnerability and overall risk management. The dependence of our clients on computers and electronic communications demands two working methodologies -- risk assessment and risk planning. The ADC Team's proactive stance enables our customers to handle unexpected problems if they arise.

The ADC Team has developed a self-assessment capability which can only be characterized as exceptional. When performing the self-assessment, we analyze and evaluate existing procedures, policies and practices and identify changes which will improve efficiency and effectiveness. The self-assessments that we have performed have yielded many recommendations that when implemented decrease cost and increase program effectiveness. These techniques are particularly pertinent to the Computer Security Program.

Our professionals are skilled in all aspects of risk management, whether it be computer security, personnel security or information security, and can attain the objectives of preventing, controlling, and indemnifying loss. The cost of good risk management is returned many times over through prevention of incidents. Compromise of information is a loss, even if it is measured in something other than dollars.

Another tool of our comprehensive approach to the computer security program is physical security. Computer security should be integrated into the physical security program as an on-going, continuous function. In an existing computer facility, physical security surveys are conducted to identify any deficiencies. We use subject matter experts to properly evaluate systems, equipment, and staff housed within the facility, as well as the facility itself. The inspection is in, on, and around the facility. The ADC Team performs these inspections through use of experts whose skills encompass all proposed work areas.



In many cases the system security tests, required to conform the operation of system features and procedures as described in the security plans, are inadequate for their intended purpose. This identification of the problem is not the end of the process. The information needs to be presented to those personnel that have the responsibility to correct the situation and to the DOE-OAK personnel who have the programmatic responsibilities. The reporting can be in many forms, from a informal oral briefing to a multi-page written document.

### Computer Security Program Responsibilities

Effective threat/cost trade-offs are another issue which must be addressed. To offset budget constraints, the ADC Team will support DOE-OAK's Computer Security Operations Manager in developing an innovative approach to the solution of these issues. The ADC Team is aware of the many significant issues in Computer Security:

- The technical qualifications of managers and staff who are in charge of the computer security programs need to be continually improved in order to fit into today's environment. Super-computers, mainframes, minicomputers, workstations, personal computers, Local Area Networks, shared files, viruses, shared disks, and electronic communications all provide a constant technological challenge to the Computer Security staff. In the policy-setting or oversight roles, our staff will be equally as qualified as the staff at the sites being evaluated or reviewed. The depth of resources of the ADC Team ensures that skilled personnel with expertise in the area of telecommunications and networks will be immediately available to support DOE-OAK efforts.
- More emphasis should be placed on the value of prevention instead of security

post-mortem after an incident has occurred.

- Uniformity of definition and handling of Unclassified Sensitive Information has been an issue throughout DOE. The massive downgrading of classified information has brought to the forefront the need to adequately protect sensitive information in a more systematic matter. The proliferation of Personal Computers and the magnitude of data processed on a stand-alone system or a system on a network are a challenge to manage.
- Identification of the real problems and their root causes often becomes a key issue because they can be camouflaged by many complex factors.
- Senior management's endorsement of disaster/recovery planning as a site priority is always a key issue. The disaster or contingency planning process can be lengthy and difficult. Users need this management support in order to make good decisions concerning critical applications, procedures, and other processing functions which will have to be moved to a remote disaster recovery site.
- Another continuing key issue is incident identification and reluctance to report incidents, such as processing classified information on a computer not approved for classified processing. Enforcement of Computer Security policies is one of the factors here.
- The computer security staff will have to be flexible to respond to the impacts of the new TEMPEST program directives and policies.

The ADC Team's extensive experience with DOE contractor facilities and in support of the



computer security management functions makes us fully qualified to address key issues in this work area. We understand the problems inherent to major computer sites and the Operations Office oversight role.

The ADC Team is committed to the belief that proprietary data, classified information, and technological advancement are resources to be protected. Existing operational bases and policies must be reviewed, audited, and updated. The most cost-effective approach, and one which provides the best security, is the integration of security requirements from the first step of design. Through this integrated approach utilized by ADC Team, waste is reduced, risk is identified and addressed, and the security program is implemented at the maximum protection level. Our use of solid security engineering concepts will reduce problems.

The ADC Team is aware that threats to computer security are becoming increasingly sophisticated. There are physical dangers, user mistakes, untrustworthy inside users, break-ins, viruses, worms and other disguised troublemakers, local area networks, wide area networks, international networks, and extremely knowledgeable users.

Viruses and hackers are a continuing problem. A hacker's job is made easy if the facility and systems are poorly designed and poorly managed. Coupled with that problem is one of an uninformed and uneducated interfacing community. The old adage that the strength of a program is as strong as its weakest link is especially true in this function. The level of technical competence of the staff is an indicator of the success level which could be achieved through a good computer security program. Again, the ADC Team's emphasis on training and increasing awareness will strengthen security awareness, without generating paranoia.

Security program managers in this age of computerized information will always be faced

with complex issues. The reliance on computer technology will continue to grow exponentially every year. The potential threat to valuable information, classified and unclassified, is ever-present. The threat is not always from a commonly known source, so the program must address the entire spectrum of intentional and unintentional corruption.

The evolving technology is difficult to manage in and of itself. Without a site security program, there are other layers added to complicate matters even more -- different vulnerabilities on networks, difficulty in assessing the source of problems, difference in the operational and administrative control. The ADC Team's broad expertise with computer technology as well as safeguards and security enables us to anticipate and effectively protect against problems.

The ADC Team will institute an aggressive security education program, with DOE-OAK concurrence. The symptoms of intrusion should be ingrained in everyone's mind. The problem may not be intentional penetration, but a lack of education on the user's part which can result in accidental corruption or improper use. All users must think "Protect and Prevent," but if that fails, then they must know the next steps in the recovery process. Security education and awareness may still be the most effective countermeasure against threat.

The ADC Team will assist DOE-OAK by providing guidance through the entire computer security process -- from system engineering of new efforts through disaster/recovery planning. Selling a total concept will address all key issues and prepare the site for preventing or resolving current and future problems.

Upper management at a site must support an enforceable standard of computer security protection. The consequences for a violation should be known and enforced. Violations are evidence of a failure in the program.



Based upon our experience, the ADC Team has identified the following potential difficulties in achieving a successful computer security program:

- There are many different small computer environments within a site, multiple computer operations, multiple system and software development methodologies, established territories, and varying management channels. The security policies for protection programs, computer security education and training, inspection and testing programs, and enforcement are not standardized. They are most often driven by the sponsoring program.

Unless the site has experienced the problems that can result from inadequate management and planning, it is most likely that the management philosophy will be inadequate to ensure the appropriate protection. This goes back to identification of the risk analysis and the appropriate level of protection. Do we protect to prevent a compromise or protect to allow for early identification? A catastrophic event generally motivates change.

- It is difficult to balance the needs of an Operations Office and the needs of the M&O contractor (or other large prime contractors). This requires a constant management effort which leads to a Win-Win conclusion.
- It is difficult to convince a site or facility that security engineering is an absolute need in order to enjoy the benefits of built-in security protection. It is also a mandatory requirement in the life cycle plan. It does not stop at the drawing board. Identification of potential risks must be provided for the life cycle of the process. This aspect also includes the identification of threats and the strategy for protection.

- Unclassified sensitive information has been difficult to manage because a) the data base elements to be protected have not been standardized within the Department of Energy; b) information owners do not identify sensitive material when building a system, especially for use on a PC-based network; c) there is inadequate training on the protection of this class of information; and d) poor security awareness is common.
- Organization and approval for certain types of testing can be a long, drawn out process. TEMPEST protection and testing plans require a specific level of engineering expertise.



### 2.3.5.2 Physical Security

SUBTASK	DOE-OAK REQUIREMENTS	ADC TEAM SUPPORT ACTIVITIES
Physical Security	<ul style="list-style-type: none"> <li>● Support DOE-OAK in validating S&amp;S systems to meet compliance requirements for facilities under its jurisdiction</li> <li>● Review electronic access control systems</li> <li>● Provide pre-construction design and technical research support</li> <li>● Conduct testing and inspections of installed systems</li> <li>● Participate in Inspections, Surveys and Special Operations</li> <li>● Prepare various reports</li> </ul>	<ul style="list-style-type: none"> <li>● Plan, schedule and conduct S&amp;S surveys and system validation activities based on risk and trend analysis</li> <li>● Plan and conduct S&amp;S Systems Performance Testing</li> <li>● Validate Facility designs</li> </ul>

#### General Security Engineering Requirements

The ADC Team personnel to be assigned to this task area are entirely conversant with the full range of Alarms and Access Control systems in place at the various DOE-OAK contractor facilities, to include those in use at LLNL. This knowledge will be invaluable to DOE-OAK, SSD during the course of the periodic Security Surveys or any specialized inspection or appraisal processes.

Part of our effort within this area will be the validation and verification of protection systems utilized throughout the DOE-OAK area of responsibility. The scheduling of this activity will coincide with the scheduled facility surveys, inspections and reviews performed at all contractor sites on a recurring basis.

#### Oversight of Security Systems

Of great significance to the Alarms and Access Controls domain is the integration of technology

advancements with the protection philosophy across the board within DOE. There has been progress made towards this integration with the issuance of the consolidation Orders such as Draft DOE Order, 5630.11C, SAFEGUARDS AND SECURITY PROGRAM. This approach to Safeguards and Security is being driven by budgetary constraints and refocusing of the Departmental efforts away from the staff-intensive security postures. The ADC Team will maintain currency on the security engineering technology and methodologies to ensure that the facilities under the cognizance of DOE-OAK are afforded the advantages of leading edge technology developments.

#### Testing and Inspection of Security Systems

Initiatives, such as the Safeguards and Security Enhancements, will be closely tracked by our Physical Security Specialist from a technical perspective. Our Physical Security Specialist will be involved in the establishment of those procedures necessary to perform routine testing



and inspection of newly installed systems. These procedures will be written in such a manner that an individual with minimal training will be capable of determining if the system under test provides suitable protection to the facility or material. As an additional feature, the procedures will allow the person performing the testing to establish whether the system meets the design specifications and criteria for Departmental systems.

### **Inspections, Surveys and Special Operations**

Inspections and surveys should be an on-going process during the lifetime of an installed system of alarms or access controls. Of prime consideration is the inclusion of the security disciplines during the conceptual or design portion of a project. It is more cost-effective to identify security features required during the design stages of construction, as opposed to retro-fitting a facility to meet the protection needs.

The inspection or survey is only the beginning of the process. The transmittal of the information obtained is as important as the information itself. The process used is described in the next section.

If a system is found to be inadequate or malfunctioning to the extent that Departmental information, classified or unclassified, or property is not being afforded the protection necessary, the ADC Team will have procedures in place to notify DOE-OAK SSD programmatic personnel to ensure that the protection of DOE assets is accomplished.

### **Reports**

The timely reporting of these facility surveys, inspections, reviews and appraisals will be an extremely critical element. We will complete routine administrative reports of these activities within 15 working days of the completion of the activity or to coincide with an established suspense date, such as those set for the periodic security surveys of various DOE-OAK contractor operations. The ADC Team will also make oral, written, and graphic presentations for SSD and DOE-OAK staff as requested. The written and graphic presentation preparation will be supported by the administrative functions of the contract operation.

The ADC Team will use a database to track findings and facilitate the follow-up on corrective action. This tracking system will have the capability to generate various reports, such as type of discrepancy, type of alarm, or access control system. This capability, commonly called trend analysis, will enable S&S management to anticipate problems and direct corrective actions at other facilities that have not yet experienced the failure or problem; thereby insuring that Departmental interests are provided the level of protection necessary.

This system will be integrated to the extent possible with those systems currently in use at DOE-OAK SSD to increase the efficiency of the system and provide ready access to Safeguard and Security issues to any appropriate personnel.



2.3.5.3 Information Security

SUBTASK	DOE-OAK REQUIREMENTS	ADC TEAM SUPPORT ACTIVITIES
Information Security (IS)	<ul style="list-style-type: none"> <li>• Controlling and handling all classified documents</li> <li>• Maintain database</li> <li>• Prepare documents for transfer</li> <li>• Report Security Infractions</li> <li>• Destroy classified documents</li> <li>• Identify documents improperly marked</li> <li>• Maintain retention records</li> <li>• Ensure accurate management of documents maintained by Personnel Security Branch</li> <li>• Plan and conduct quarterly audits</li> <li>• Assist in the maintenance of the OAK accountability system</li> <li>• Develop and maintain Security awareness and Training programs</li> <li>• Maintain a filing and tracking system for Classified Mailing Addresses</li> <li>• Perform special evaluations</li> </ul>	<ul style="list-style-type: none"> <li>• Operate the CDCC</li> <li>• Conduct random validation of classified holdings</li> <li>• Provide IS planning support and conduct required inventories</li> <li>• Ensure that all transactions for classified documents; mailing; destruction; transfers etc. are accomplished in accordance with prescribed requirements.</li> </ul>

This portion of the statement of work addresses the Classified Document Control Center (CDCC) Operation and all management policies and procedures required to sustain an effective security posture for the protection of classified documents and material.

Classified document control was a major initiative of the ADC contract at DOE-OAK. ADC took an unsatisfactory situation and resolved the problems, turning the program into a satisfactory function. These proven capabilities demonstrate the effectiveness the ADC Team will have in supporting DOE-OAK

in the area of Information Security. Accountability for classified material has been a high visibility function with DOE. The ADC Team recognizes that errors in this process can result in an important functional area being rated as less than satisfactory.

Two key elements characterize the ADC Team's approach to information security programs: 1) ensuring that staff have the skills and sophistication demanded; and 2) emphasizing increased awareness of security issues through training.



We have learned that the root causes of problems in CDCC operations can be the inadequate experience level of staff and the corresponding lack of understanding of security requirements. Our experience has proven that utilization of higher skill levels of staff produces the desired results to support the program.

The ADC Team will emphasize training. Unless an office generates classified material on a daily basis, there can be a tendency to forget the details of generation, marking and storage of this material. The specialist assigned to this key element of SSD will ensure quality and minimal rejection of classified material when vigorous training is part of the site safeguards and security program.

The ADC Team's in-depth knowledge base of classified document control covers, at a minimum, these responsibilities:

- The Accountability System
- Processing Classified mail
- Audit marking and documentation
- Destruction
- Audits, inventories, no-notice inspections
- Training and security awareness
- Analysis and review of policies and orders
- Participation in special evaluations

The enforcement of the information security policies at a site is a key aspect to a successful program. The type of accountability system in place at the site is important to the tracking of documents and material. If the magnitude of the risk warrants a real-time computer system with signature wands, control of the movement of documents can be significantly improved. Regardless of the type of system utilized, the

retention and filing of source documentation is of paramount importance.

Distribution of classified holdings listings, as recorded in the DOE-OAK database, to the various document custodians will enable appropriate personnel to identify problems early and take corrective action. A 100 percent inventory should not be required to reveal that an accountable document is now unaccounted-for or misplaced. Accurate Custodian listings will be provided on a regular basis, thus assuring accountability more easily.

Another solution to the problem of missing or unaccounted-for documents is an effective audit program. The random sampling and inspections in the past may not have identified a missing document problem soon enough. If document loss is unknown, a damage assessment cannot be made. The audit should reveal not only the adequacy of the accountability system but also implementation and adherence to policies and procedures.

An automated document control system, in itself, does not address the need to "control." There are many systems, designed at several levels of complexity, but they will be ineffective if site policy and procedures are not followed. Total standardization may not be possible, but minimal criteria for effective control and accountability must be established.

The ADC Team anticipates that forthcoming changes mandated by the National Industrial Security Program (NISP) and the recent DOE Headquarters directives concerning classified material will make this an area a significant concern. NISP will also impact other areas, such as: 1) handling different storage media; 2) transmittal; 3) reproduction; 4) marking; 5) control of working papers; 6) inventory requirements. Fortunately, the majority of the NISP changes have been incorporated into DOE Order 5632.1C, PROTECTION AND CONTROL OF SAFEGUARDS AND SECURITY INTEREST, dated 7/15/94, and companion Manual 5632.1C-1.



The decision to transition to modified accountability for certain types of SECRET material within the Department brings DOE in line with most other Federal Agencies. ADC, as the previous support services contractor, had played a significant role in the establishment of modified accountability procedures for DOE-OAK. In parallel with this effort was the institution of a Training Program for those personnel affected by the modification. Our Information Security personnel are prepared to provide the assistance and training necessary to ensure that all documents are properly accounted for and handled according to the most current directives.

Systems performance tests within this area have been an ignored area until recently. Since accountability systems/operations range from 3 by 5 card files to computer generated numbering and control systems, performance testing must be tailored to the individual facility. Lessons learned in the other security disciplines should be applied towards the development of systems performance tests. Especially important is the melding of computer security ideals and parameters. ADC provided this significant management tool to the Information Security Specialist in the past. As a direct result there were great strides in upgrading the protection posture and accountability procedures across the board.

The ability to track infractions is a major tool in addressing the corrective action required when noncompliance is noted. The ADC Team will utilize appropriate databases to assist in the review and resolution of security incidents and produce necessary follow-up reports. Trend analysis will be a component of our tracking program. The focus of this effort will be prevention of infractions through security awareness and education. Trend analysis capabilities provide the administrator with the ability to determine training deficiencies or determine the root cause of infractions.

Uniformity in the application of the Information Security program policy will improve the

response to a facilities needs. This requires good leadership and a cohesive, communicative group. A competent staff will understand the rules and apply them in a uniform fashion. The users of the service will not receive a different answer to the same question from different program staff personnel. For instance, there are many misconceptions about document marking. There may be site specific rules which conflict with Departmental policy. The Information Security Program must ensure that the classification standards are applied uniformly at all user locations.

The Classified Document Control Center can promote many of the concepts required for a superior overall program. For example, the ADC Team in the operation of the Classified Document Control Center, suggested document review for destruction as part of an effort to reduce custodial holdings to only those documents that were deemed to be essential. The staff also generated notices or educational bulletins about reviews for downgrading, transferring, working paper retention, etc.

Through the Team's use of special evaluations, the program can be effective and reveal deficiencies early. These evaluations will be treated as part of the self-assessment program for quality assurance and avoidance of infractions/violations.

The ADC Team advocates establishment of a program of audit and random sampling of classified documents. This program should be commensurate with the risk posed by the potential loss of the documents, by classification group.

Our staff will work with all management levels to provide an acceptable level of understanding of the program and to assure the required support for implementation and compliance. The program cannot be successful without this support.



### 2.3.5.4 Foreign Visits and Assignments/Security Education and Training

SUBTASK	DOE-OAK REQUIREMENTS	ADC TEAM SUPPORT ACTIVITIES
Foreign Visits & Assignments (FVA), Security Education and Training	<ul style="list-style-type: none"> <li>● Administrative support</li> <li>● Technical support</li> <li>● Review security plans</li> </ul>	<ul style="list-style-type: none"> <li>● Prepare complete and concise packages for FVA actions</li> <li>● Performance test FVA compliance requirements at contractor facilities</li> <li>● Conduct inspections of procedures</li> <li>● Review and document off-hour activities.</li> </ul>

#### Foreign Visits and Assignments

Each visit/assignment request must be prepared for review by the DOE-OAK Foreign Visits and Assignments (FVA) Program Manager., ADC Team will ensure that all programmatic goals and objectives are achieved. To accomplish this all encompassing tasking, the following breakdown defines an approach which addresses full implementation of the FVA Program.

The basic tasks of the ADC Team's Foreign Visits and Assignments clerk will be:

1. Review each visit/assignment request and determine the required documentation.
2. Initiate the necessary paperwork to obtain the necessary documentation.
3. Track the materials to ensure timely processing.
4. Prepare the visit package when all required information has been gathered.
5. Ensure initiation, tracking and completion of post-visit requirements.

All requests are initiated through the Visits and Assignments Management System, either by the contractor facilities or the Foreign Visits and

Assignments Clerk. As a part of initiating the visit request process, a status sheet is completed by the Foreign Visits and Assignments Clerk, using the information contained on Form IA 473.

This status sheet is used to track the steps involved in completing a visit request per the DOE Order 1240.2B, UNCLASSIFIED VISITS AND ASSIGNMENTS BY FOREIGN NATIONALS, dated 8-21-92. Whenever we receive documentation which authorizes or documents a visit or assignment, our clerk will update the status sheet to reflect receipt of the information. All on-going actions will be entered into the Visit and Assignment Management System.

Indices checks, if required, will be one of our first actions in processing visit requests, due to the time required to complete. Indices checks, which are checks by the Central Intelligence Agency, Federal Bureau of Investigation and the State Department, must be initiated and completed for any of the following:

- Visit/assignment of a sensitive country foreign national.
- Assignment of sensitive country foreign



national to any facility.

- When purpose of visit/assignment involves a sensitive subject.
- When the request includes approval for unescorted off-hours access. LLNL may use the term "flexible work schedule" in-place of this terminology.

When indices are completed, the Visit and Assignment Management System notifies the Foreign Visits and Assignments Clerk by way of an indices check list, which is printed daily.

Security Plans are required for all visits and assignments. The two types of plans are generic and specific. A generic plan is usually embodied in an accepted facility security plan or Master Safeguards and Security Agreement. A specific security plan is tailored for a specific individual for a specific visit/assignment and is required for any of the following:

- Visit/assignment of a foreign national from a sensitive country.
- Visit/assignment requires access to a secure facility.
- Visit/assignment involves a sensitive subject.

The Foreign Visits and Assignments Clerk will review the security plans to ensure compliance with DOE Order 1240.2B, UNCLASSIFIED VISITS AND ASSIGNMENTS BY FOREIGN NATIONALS, dated 8-21-92, and determine if the plan should be approved/disapproved by DOE-OAK Foreign Visits and Assignments Manager. All required specific security plans will be tracked on the status sheet.

DOE-OAK Operations Security/Counterintelligence Program Manager coordination is required for all visits/assignments by sensitive country foreign nationals, as identified by Headquarters DOE, before final action by DOE-OAK, SSD (Safeguards and

Security Division). A cover memorandum will be attached to the visit request package, requesting the concurrence from the DOE-OAK Operations Security/Counter-intelligence Program Manager.

Whenever a visit involves access to a computer system, DOE-OAK, a memorandum requesting programmatic review and concurrence will be sent to the Information Resource Management Division, along with a copy of the visit package

In the following instances, Headquarters concurrence is required:

- The foreign national is from any the currently identified countries.
- An assignment of a foreign national exceeds four years at a facility.
- The requested visit/assignment is a high-level protocol visit by top scientists or political figures.

Upon completion of each programmatic review and receipt of the cover memorandum with the signature of the program authority in the Program Official block, the package will be submitted to DOE-OAK, Foreign Visits and Assignments Program Manager for review and signature.

The Foreign Visits and Assignments Clerk will review all visit/assignments and determine the appropriate DOE-OAK programmatic office to review for concurrence. A memorandum will be generated and attached to copies of the Form 473 and sent to the appropriate program official.

Those steps described above are only the initial procedures necessary for an effective Foreign Visits and Assignments Program. After approval of the visit is granted, follow-on validation and testing of the procedures outlined in the Master Safeguards and Security Agreements and the generic security plan is necessary. To ensure that all visits are conducted in accordance within these agreed



upon procedures, the ADC Team will initiate the following procedures:

- Develop and conduct Limited Scope Performance Tests (LSPTs) for the Foreign Visits and Assignments Program. Our personnel, in concert with the Foreign Visits and Assignments Program Manager, will establish an on-going schedule of performance testing. Each test will be fully documented for inclusion in the Foreign Visits and Assignments Program Managers files. The purpose of LSPTs is to evaluate the skills of an individual or group to perform the specific requirements of the policies and procedures established for a particular activity. Within Protection Program Operations (PPO), for example, LSPTs are used to evaluate the skills and capabilities of the protective force to accomplish the specified task.
- Conduct survey/walkthrough inspections of security facilities which will be hosting a foreign national visitor or assignee. As part of the initiative to ensure that foreign visits are conducted properly, our personnel will provide, at the request of the Foreign Visits and Assignments Program Manager, this critical evaluation of the facilities being visited by our foreign guests. All programmatic activities will be thoroughly documented for incorporation in the Foreign Visits and Assignments Program Manager's files.

- Review documentation of foreign nationals allowed off-hours access to ensure compliance with contractor Standard Security Plans and appropriate DOE Orders and directives. The ADC Team has provided off-hours inspections at LLNL and Sandia National Laboratory (SNL)/CA to determine compliance with prescribed requirements, in the past. These inspections were coordinated with either LLNL or SNL/CA and DOE-OAK staffs. All results of these inspections were chronicled in reports to the Foreign Visits and Assignments Program Manager.

When deficiencies are noted during any of the described inspections or evaluations, corrective actions will be initiated immediately in most cases. This is possible due to the close coordination of these efforts at the program and facility level. If corrective or compensatory measures can not be instituted or there is a possible compromise of classified information, appropriate DOE-OAK, SSD personnel will be contacted regardless of the time of day or day of the week.



## 2.3.6 TASK 6: BRIEFINGS AND REPORTS

The ADC Team will provide timely and reliable support to accomplish the two components of this task: assistance for DOE-OAK meetings, briefings, hearings, and reports; and preparation and submission of task reports and documentation.

### 2.3.6.1 Briefings and Meetings

The Assistant Manager for Defense Programs (AM/DP) and the Divisions which report to the AM/DP host and attend a significant number of meetings. These meetings are both internal to the AM/DP organization and external. Internal meetings include the weekly AM/DP staff meeting, occasional AM/DP all-hands meetings, and Division staff meetings. Our administrative support will help produce successful meetings and briefings for these groups.

The AM/DP organization is involved in a significant number of external meetings, briefings and public hearings. Participants and recipients include the DOE-OAK manager and other Oakland organizations; DOE Headquarters and field organizations; management and programmatic personnel at Lawrence Livermore National Laboratory; and Federal, State and local government organizations.

There are also a significant number of Government and private sector VIPs who visit LLNL. For many of these visits the AM/DP provides logistic and scheduling support and overview briefings.

The ADC Team will provide technical and administrative support to DOE-OAK for these activities. Technical support will include accompanying DOE-OAK to technically-oriented meetings, such as those with regulatory agencies, project reviews and program reviews. Administrative support will include scheduling, planning and logistics, briefing presentations, and documentation of meeting results.

The ADC Team's administrative staff are fully trained in presentation graphics for IBM-compatible and Macintosh personal computers to meet their current duties. The best way to demonstrate our capabilities is through examples; accordingly representative examples of presentations materials prepared for DOE-OAK on Macintosh computers by ADC personnel are in Appendix B. The ADC Team's on-site staff will be backed up by our corporate resources.

Our staff are capable of arranging and supporting a wide range of meetings, from a simple staff meeting to a public hearing. They will arrange every detail from the planning stage through execution, reporting, and follow-up activities. They will arrange briefing material for speakers, produce agendas, and coordinate the related tasks which allow meetings to run smoothly despite the inevitable last minute changes. They will arrange for accommodations, meeting rooms and other facility requirements. They will ensure that the proper protocols are observed for the different status levels of visiting dignitaries.

We will perform these services in classified and unclassified environments.

The Team Leader/Program Analyst will be directly responsible for this Task. She has significant experience in handling the scheduling, planning, and logistics of important DOE meetings. She was responsible for coordinating all Secretarial visits to DOE-OAK, which included briefings, logistics, preparation of itineraries, and planning for protocol issues and protection of dignitaries. Her experience ensures that this support effort will be properly staffed and that services and products will be appropriately reviewed.



### 2.3.6.2 Reports

ADC's Project Manager/Business Manager has primary responsibility for preparing, reviewing, and submitting task reports and documents to DOE-OAK. He will be supported by the rest of the management team, the Team Leaders. All reports will be formatted to comply with DOE-OAK requirements and the DOE Uniform Reporting System. ADC has a well established cost tracking and reporting system adapted to meet reporting requirements for DOE task order contracts. On all our contracts we have always submitted prompt, accurate, and complete reports.

The Project Manager will submit Financial Reports to the Contracting Officer and the DOE-OAK Financial Management Division by the 10th of each month. He will also provide the Contracting Officer with staffing requirements, and schedules for the coming month.



SECTION 2.4

*Our experienced management team, well defined management procedures, and collaborative approach with DOE-OAK will result in cost-effective, timely and quality performance.*

The ADC Team's approach to task management is designed to achieve the key objectives of quality, timeliness, flexibility, and cost-effectiveness. We are aware of the requirement to do "more with less," and we are committed to efficient task management. We will accomplish our objectives by assigning our experienced and multi-disciplinary personnel to self-directed work teams who will work closely with their DOE-OAK counterparts to plan and perform tasks and

by using well defined mechanisms for planning, monitoring, controlling, and reporting on work. Several significant features and benefits of our approach are shown in the chart below.

The management approach of the ADC Team contains specific mechanisms for ongoing review and control of task schedules and level of effort, subcontractor management, and communication with DOE-OAK.

ADC Team's Task Management	
Features of Management Approach	Benefits to DOE-OAK
<ul style="list-style-type: none"> <li>● Thorough understanding and knowledge of DOE-OAK tasking procedures based on several years of contract experience.</li> <li>● Established relationships for formal and informal communication with DOE-OAK technical and management personnel, based on the DOE-OAK experience of ADC and PAI.</li> <li>● An experienced Project Manager as the single point of contact and additional management team personnel with significant DOE field experience.</li> <li>● Proactive planning which enables us to provide the right mix of highly experienced personnel at the right time to meet program needs.</li> <li>● Skilled, experienced, and multi-disciplined technical personnel, at all levels, for maximum efficiency of assignments to work teams.</li> <li>● Flexibility to respond quickly to changing staffing needs and short-notice tasks through our large shared pool of technical resources.</li> <li>● Clearly defined and proven procedures for task order response and task review, audit, and reporting.</li> </ul>	<ul style="list-style-type: none"> <li>● No delay in start up</li> <li>● Continuity, mutual understanding of work</li> <li>● Focus and efficient direction of efforts</li> <li>● Effective control of costs and level of effort</li> <li>● Responsiveness, effective control of costs and level of effort</li> <li>● Responsiveness to DOE-OAK</li> <li>● Overall efficiency and accountability in task management</li> </ul>



The effectiveness of our approach to task management has been demonstrated by outstanding performance on numerous task order contracts with DOE and other customers.

Our approach to project and task management is described in complete detail in Volume III of this proposal; in this section we will provide an overview of our management approach, organization, and lines of communication; procedures for task planning, execution, and control; and the approach to subcontract management.

#### 2.4.1 Organization and Responsibilities

The Project Manager, Mr. Vito Magliano, will have overall responsibility for the quality, timeliness, and cost of all work. He will be the primary point of contact for DOE-OAK. The project management team will provide integrated, cross-disciplinary leadership for the performance of all tasks described in the SOW. This team consists of the Project Manager, Mr. Magliano, and the Team Leaders. The Team Leaders are the Program Analyst, Ms. Ball, Mr. Kirby, Security Specialist, and the General Engineer/Team Leader for Environmental Safety and Health and Facility Operations, Mr. Mackanic.

The four members of our management team have many years of successful and related management experience, as shown below.

All four members of our management team have experience with DOE-OAK. Their knowledge

and understanding of DOE-OAK will provide unsurpassed management expertise for this contract. Their availability for this contract is evidence of their personal commitment to this project, as well as the ADC Team's corporate commitment to the success of the contract.

The organization of the project management team is illustrated in Exhibit 2.4-1 on the next page. The lines of communication and authority are simple and effective. We have simplified our project management organization to reflect the changed requirements of DOE-OAK.

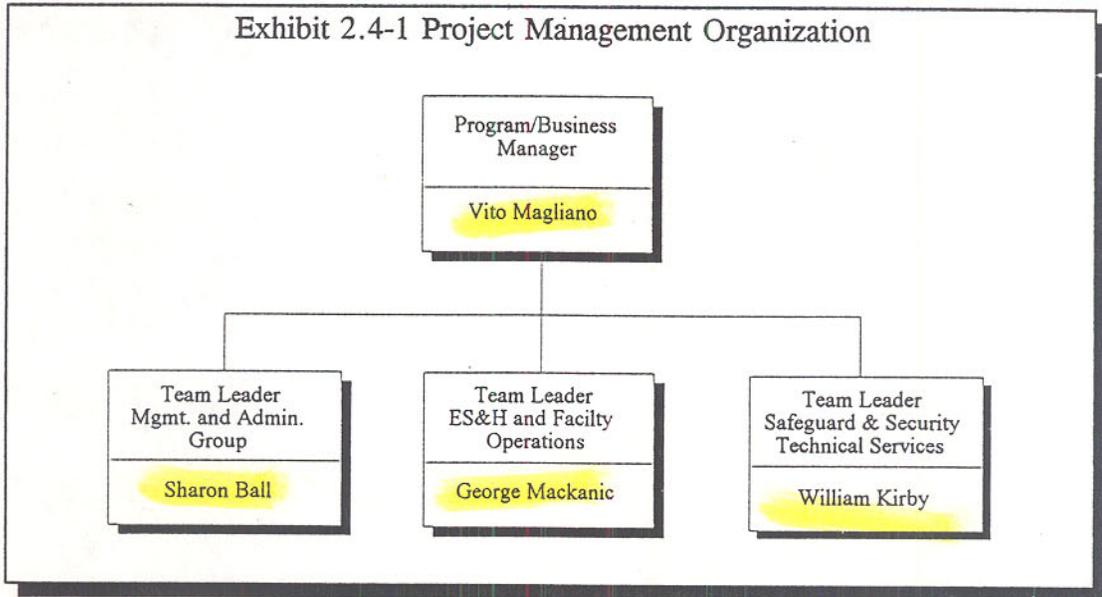
The organization of our management team ensures that the Project Manager has control over all task direction; that there is a unified approach to each task; and that the most qualified resources in each appropriate skill area are assigned to the task at hand. Our approach to staffing tasks is presented in Section 2.1.2. We will assign personnel to self-directed work teams to maximize flexibility, responsiveness, and application of expertise. Team Leaders will have individual responsibility for their specific task areas, and they will collectively apply their extensive management skills to serve the DOE-OAK community as a whole.

Our Project Manager will be surrounded by capable professionals, strong in their individual functional areas. This array of talent will allow Mr. Magliano to be the leader and visionary for the group and to concentrate on interaction with DOE-OAK management at the LLNL site to ensure proper focus and direction of the contract efforts.

	Years of DOE Experience	Years of Total Experience
Vito Magliano	17	30
Sharon Ball	12	26
William Kirby	7	25
George Mackanic	34	35



Exhibit 2.4-1 Project Management Organization



The ADC Team is committed to maximum managerial autonomy so that decision-making and task performance are not burdened by bureaucratic procedures. We wish to reaffirm that the ADC Team selects their management staff carefully and deliberately, and the management group selected for this contract has a proven track record, collectively and individually. The members of this group have a proven track record of success, documented by satisfactory and laudatory comments from inspections, audits and evaluations. Many of our major management efforts have been adopted DOE-wide. A few of the areas of responsibility for management positions which our management team has held within DOE and in the private sector are:

- Strategic Planning
- Budget Planning and Analysis
- Resource Planning (Manpower Utilization)
- Organizational Development
- Leadership and Teamwork
- Successful projects, despite staff shortages
- Long and short range planning
- Contract management

- Performance evaluations and self-assessments
- Audits, appraisals, inspections
- Information management and security, classified and unclassified

Together, this management team can accomplish even the most difficult task in a timely and manner and meet the best interests of DOE-OAK.

The resume for Mr. Magliano, Project Manager, is provided in Section 2.1.1. Mr. Mackanic, Mr. Kirby, and Ms. Ball, the Functional Leads, have experience and qualifications equally well matched to the specific requirements of managing this contract with DOE-OAK.

Mr. Mackanic, an Engineer, has had a long and illustrious career in implementing and managing ES&H programs at Lawrence Livermore National Laboratory. He held increasing responsible positions at the Laboratory. He is uniquely qualified to lead the ADC Team's support to DOE-OAK in ES&H. He has participated in all functional areas in Task Four



in operational, evaluation and management capacities.

Mr. Kirby will lead support services in Task Area 5, Safeguards and Security. He currently is assigned duties as a senior physical security specialist. Mr. Kirby has a B.S. degree in Criminal Justice/Behavioral Science. During the course of a 20-year career as a New York State trooper, he supervised increasing numbers of personnel. Since his retirement from the New York State police in 1987 he has been associated with various contract activities in support of DOE. His assignments have included increasingly responsible positions at DOE-OAK and DOE-AL.

His areas of expertise include Information Security, Physical Security, and Personnel Security as well as Security Education. In the past two years, Mr. Kirby has been selected as the lead inspector for survey tasks at various contractor facilities for DOE-AL. In this lead position has supervised and led a multi-disciplinary team of inspectors, and prepared and reviewed reports on the results of these inspectors' activities. As a result of these activities, Mr. Kirby has gained valuable insight into operations of DOE and its Operations Offices.

Ms. Ball, Program Analyst, has extensive knowledge of DOE-OAK in all administrative and business management functions required in the SOW; she has held several significant management positions at DOE-OAK. As Deputy Assistant Manager for Administration, Ms. Ball was responsible for DOE-OAK's administrative activities, including budget, procurement, freedom of information and liaison with LLNL administrative management. As Acting Deputy Assistant Manager for Defense Programs, she had responsibility for DOE-OAK's safeguards and security program. Ms. Ball also served as Acting Assistant Manager for Energy Programs. She substantially participated in long-range, institutional and strategic planning; site development studies; technology transfer oversight. As Team Leader, Ms. Ball

planned and executed DOE-OAK's first life-cycle review of LLNL's personal property management system. She also conducted an independent assessment for the Assistant Secretary for Defense Programs of the response to a sensitive drug incident. In the above positions and others held at DOE-OAK, Ms. Ball has obtained significant supervisory and managerial experience.

Our management organization is designed to be functionally congruent with the SOW task areas and the DOE-OAK organization. This structure recognizes interrelationships between DOE-OAK organizational units and the SOW. Each Team Leader will interface formally and informally with his or her counterparts at DOE-OAK. The Team Leader/Program Analyst will also direct cross-cutting management and administrative support services to all Tasks.

Our management team will work directly with DOE-OAK, solving technical and management issues on a daily basis. Our overall approach to project management is to establish a working partnership with our client and to maintain formal and informal communication.

#### Roles and Responsibilities

Mr. Magliano, the Project Manager, will be responsible for overall task management and liaison with DOE-OAK, as illustrated in Exhibit 2.4-3, on the next page. Ms. Ball, the Program Analyst, will be responsible for directing and coordinating the activities of the Management and Administrative support group, whose assignments may cross task boundaries to provide specialized support to technical program tasks and draw from the ES&H and S&S groups to support Tasks One, Two, Three, and Six.



Exhibit 2.4-3 Summary of Task Management Responsibilities

Project Manager	Team Leaders
<p><b>Task Receipt and Task Plan Preparation:</b></p> <ul style="list-style-type: none"> <li>● Receives task assignments from DOE-OAK CO</li> <li>● Conducts OCI reviews</li> <li>● Coordinates development of Task Plans by Management Team</li> <li>● Coordinates consultation with COR or designated DOE-OAK personnel to clarify scope, deliverables, schedule, and estimated cost</li> <li>● Submits Task Plans to CO</li> <li>● Maintains official contract files for Task Plans</li> </ul>	<ul style="list-style-type: none"> <li>● Prepare task plans</li> <li>● Consult as necessary with COR or designated DOE-OAK personnel</li> <li>● Prepare detailed estimates of cost, hours, schedule, milestones, and impacts on other work</li> </ul>
<p><b>Task Assignment and Execution:</b></p> <ul style="list-style-type: none"> <li>● Coordinates/oversees assignment of work</li> <li>● Approves detailed procedures for performance of work</li> <li>● Ensures OCI avoidance and quality assurance</li> </ul>	<ul style="list-style-type: none"> <li>● Inform all involved program personnel of work assignments, costs, allocated hours, and schedules</li> <li>● Establish and approve detailed work procedures</li> <li>● Manage major key tasks</li> </ul>
<p><b>Task Monitoring and Control:</b></p> <ul style="list-style-type: none"> <li>● Conducts regular meetings with Management Team</li> <li>● Reviews and analyzes weekly and monthly progress reports</li> <li>● Produces project management reports for submittal to DOE-OAK</li> <li>● Maintains liaison with DOE-OAK CO and COR</li> <li>● Oversees technical progress</li> </ul>	<ul style="list-style-type: none"> <li>● Conduct regular project staff meetings, evaluate task progress</li> <li>● Monitor technical progress and costs</li> <li>● Maintain liaison with DOE task monitors</li> <li>● Prepare weekly and monthly progress reports for submittal to PM</li> </ul>
<p><b>Task Review and Approval:</b></p> <ul style="list-style-type: none"> <li>● Reviews and approves work</li> <li>● Maintains effective quality control and quality assurance program</li> <li>● Verifies OCI avoidance</li> </ul>	<ul style="list-style-type: none"> <li>● Review, inspect, and approve all work performed</li> <li>● Review product/service quality</li> <li>● Review and approve all deliverables and submit to Project Manager</li> </ul>

The Team Leaders are responsible, on a day-to-day basis, for ensuring that the task schedules are met and that deliverables meet all specified requirements. They will supervise and evaluate the performance of the technical and administrative staff assigned. These managers

are not only technically competent, but also very experienced in managing many tasks at one time. They are talented managers who know that people make things work. The ADC Team ensures that its management staff are people-oriented. They also know how to work through



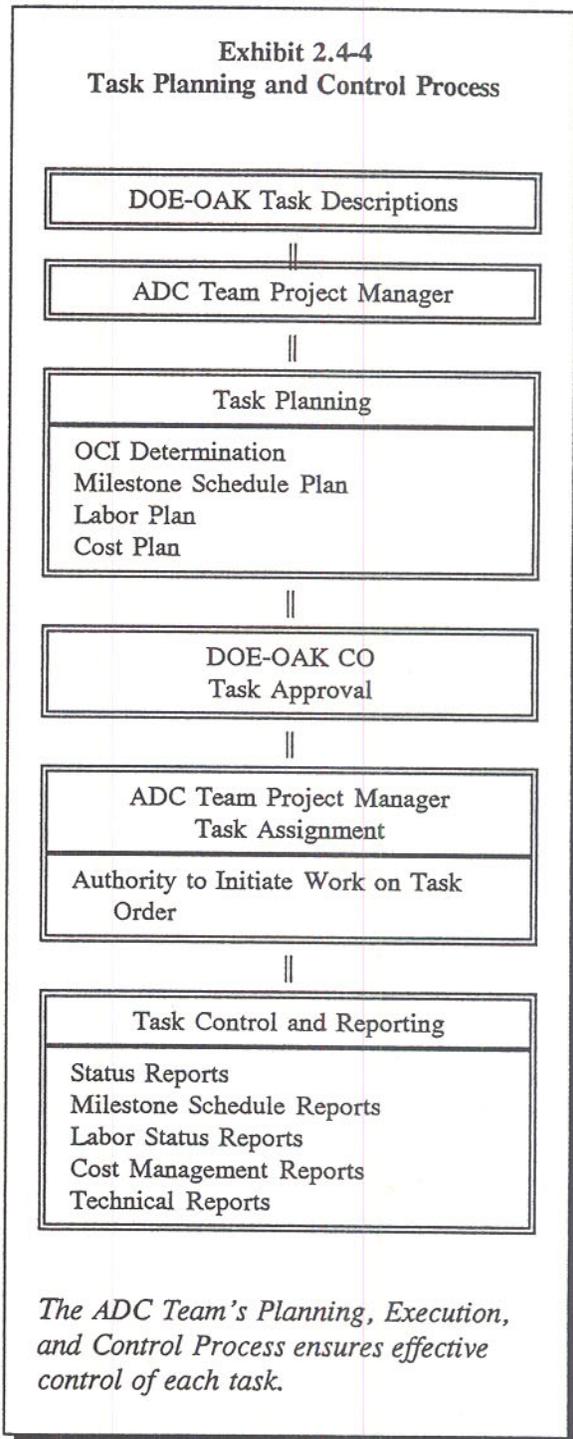
the challenges that can occur on a daily basis and motivate staff to maintain adaptability and flexibility in performing tasks.

### 2.4.2 Task Planning, Execution, and Control

The ADC Team understands the benefits of ensuring complete understanding of each task to ensure that performance results in complete satisfaction of DOE-OAK. Accordingly, our management approach emphasizes cooperative planning and communication with DOE-OAK to alleviate problems, erroneous assumptions, and misconceptions about the work to be performed. The result will be realistic and efficient task plans that will enable us to meet all DOE-OAK's needs. The ADC Team's task planning process is shown in Exhibit 2.4-4, Task Planning and Control Process.

In response to Task Descriptions received from the DOE-OAK Contracting Officer, the ADC Team will prepare Task Plans and submit them for approval. The Project Manager will be responsible for the Task Order response and will serve as the focal point for early coordination with the DOE-OAK COR and Team Leaders. The Project Manager will also review the task for any potential Organizational Conflict of Interest on the part of ADC, PAI, or BDM. The Task Plan will define the personnel and other resources required to perform the scope of work. As appropriate, it will also define expectations of performance, delivery or performance schedules, and the assumptions and/or risks. It may also describe lines of control and responsibilities; task assignment planning and control and the review process; information management; reporting requirements; OCI avoidance; quality assurance; security and handling of classified documents; health and safety; and other project management information as applicable.

ADC has a DOE-approved Organizational Conflict of Interest (OCI) Mitigation Plan in place in support of the DOE- Albuquerque contract. The plan is adaptable to the DOE-OAK operation and will provide our Project



Manager with the means to solve any questions concerning OCI quickly and easily.

The management team will clearly define the



most effective staffing use of total contract resources to accomplish the mission. We are committed to cost control and efficient use of resources. They will assess all needs, suggest any changes to the plan, and reach consensus on any risks which may be involved in implementing the changes. Consistent estimates from our knowledgeable staff will result in dependable and realistic estimates of time and resources.

The Project Manager, and members of the management team as appropriate, will meet with DOE-OAK personnel (Division Directors, Branch Chiefs, Technical Managers, and staff) to obtain consensus on the task requirements and proposed approach. This collaboration reinforces our partnership approach to the contract. When task analysis deems it necessary, the ADC Team will suggest alternatives for DOE-OAK approval. For example, a situation may arise where the cost for a very specialized and specific skill may outweigh the short-notice delivery need.

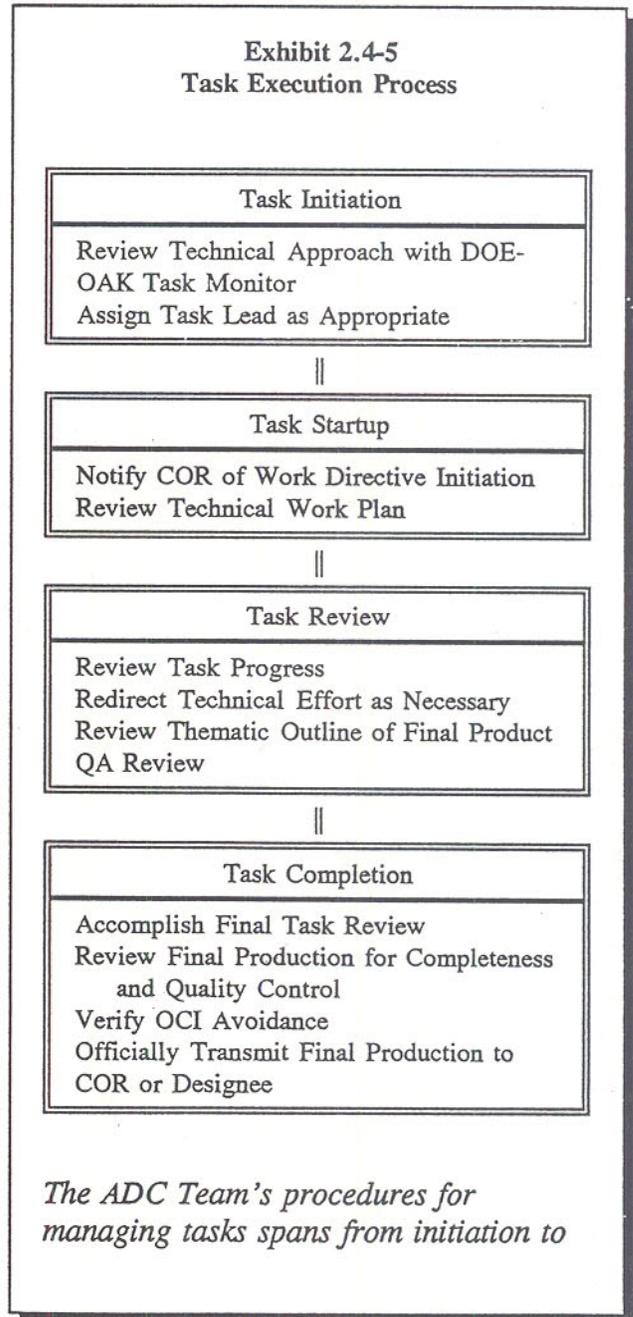
During execution of the task, the Project Manager will provide oversight management for task schedules as part of his responsibility for contract compliance and client satisfaction. Throughout performance of the task, whether it is on-going, continuous services or a short-term project, the Team Leaders will accomplish task control by closely monitoring cost, schedule, and technical performance. This supervision will ensure that quality products are delivered on time, as outlined in Exhibit 2.4-5. We will submit required reports to DOE-OAK on the schedule requested. All plans and reports will comply with the DOE contractual terms.

The ADC Team is experienced in the management of level-of-effort tasking; we have not experienced any overruns in our work for DOE or other clients. Our proven task management systems set us apart from any potential competitors. Our monitoring procedures have been specifically designed to meet the needs of DOE Task Assignment Contracts. Once a task is underway, DOE-OAK

will be advised immediately if a resource change is projected, based on a change in the criteria of the task.

### 2.4.3 Measurement of Task Management Performance

On a weekly basis, the Project Manager and the Team Leaders will review the status of work and resources expended against task budget to ensure



everything is on track. These weekly reviews also assess the quality of work being performed and project resources to be utilized for remainder of task. Specific measurement includes level of effort (time), appropriate skill categories, percentage of completion vs. time remaining and percentage of costs incurred. Any incipient deviation from management objectives will be evaluated, and any potential problems will be communicated to DOE-OAK and promptly and jointly discussed for cause and solution.

The ADC Team encourages DOE-OAK participation in meetings of our project management team. These meetings will be chaired by the Project Manager. The Project Manager and the Team Leaders will meet frequently in order to serve as the management control system to make the most effective use of The ADC Team has extensive experience in successfully performing task-order, level-of-effort contracts. The corporate experience tables in Section 2.2 of this volume identify these contracts. As shown, most of the experience of the ADC Team is with multiple-task, task order contracts.

The ADC Team's approach to task management on this contract effort ensures that all the technical tasks will be accomplished efficiently, meet all DOE-OAK criteria, and be cost effective. We will add value to the organization

limited resources. Other task issues may be placed on the agenda in order to effect timely and appropriate decisions. A special meeting may be requested by either DOE-OAK or ADC at any time to discuss urgent and compelling issues which may arise. These meetings will be an excellent on-going forum for all parties to understand the contract tasking, assign resources, determine root causes of problems or relationships, affirm contract compliance, and coordinate all requirements.

Quality assurance and effective management programs are very active in each of the Team members' corporate structures. One of the first corporate tasks for the key management staff will be to review the current quality assurance and management efforts to determine if enhancements are needed for the revised SOW under this contract.

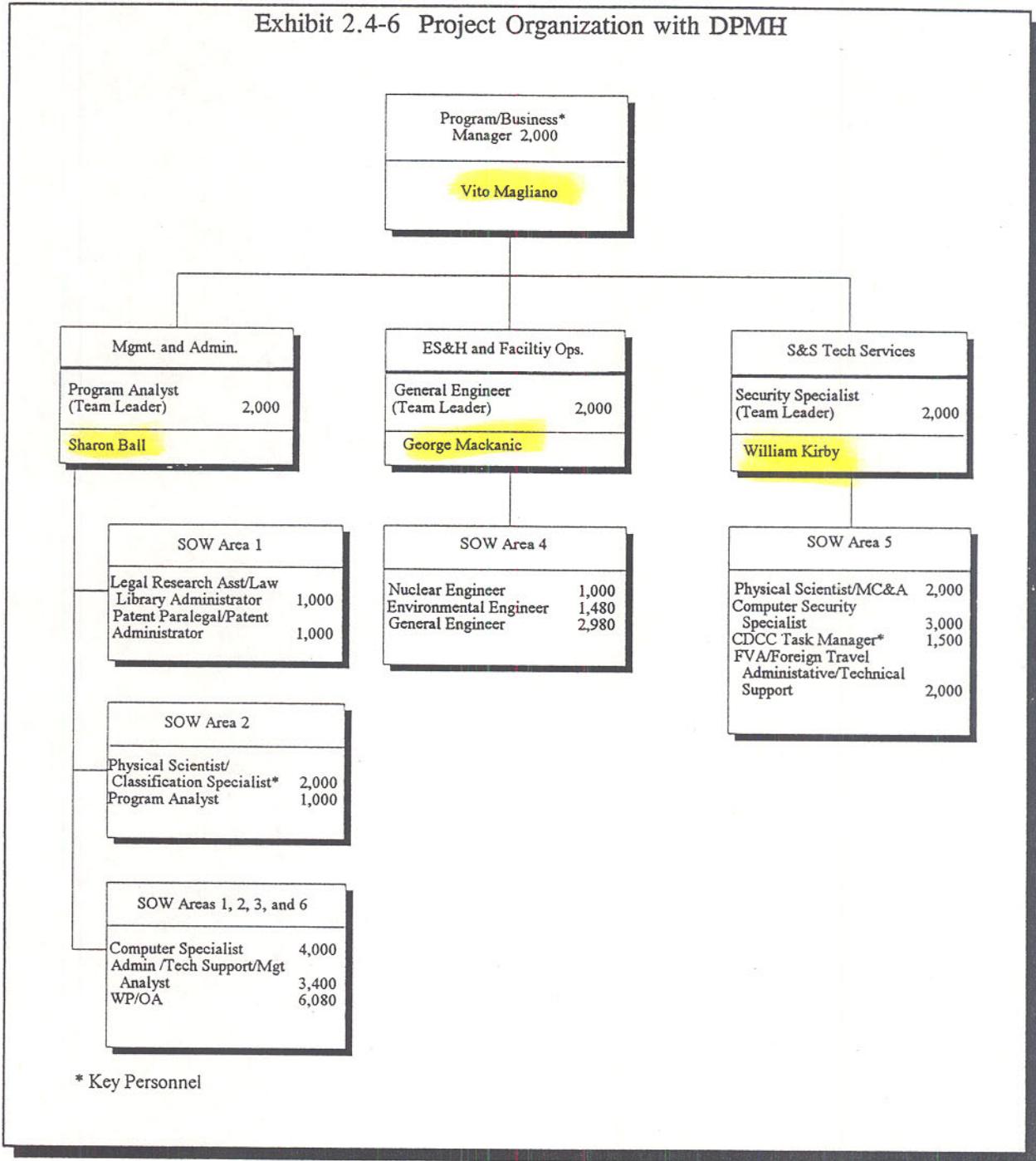
while providing the best support to the client's operation.

#### 2.4.4 Estimate of DPMH

The Team has defined the direct productive staff hours for each organizational unit. We believe this will best serve the accomplishment of the task assignments, based on our approach to serving DOE-OAK needs. Exhibit 2.4-6, on the next page, illustrates our proposed organization and estimated DPMH.



Exhibit 2.4-6 Project Organization with DPMH



\* Key Personnel



#### 2.4.5 Coordination of Subcontract Activities

Advanced Data Concepts, Inc. (ADC) is the prime contractor on this effort for DOE-OAK. ADC has teamed with two subcontractors, PAI and BDM, to carry out this contract. Two years after the submission of our original proposal, our Team remains solidly committed to this contract with DOE-OAK.

ADC has executed and renewed teaming agreements with PAI and BDM. In our teaming agreements, ADC has established a clear prime/subcontractor relationship. Corporate executives at PAI and BDM have pledged their full support of this contract, as shown in the letters of commitment in the front of this proposal. The roles and responsibilities of each company have been fully defined and agreed upon.

The Project Manager, Mr. Vito Magliano, will have full authority to act on behalf of the ADC Team for all contractual obligations.

Each company has designated a corporate executive who will be responsible for oversight of this contract:

- Stephen Moses, ADC General Manager
- Charles Boardman, PAI Chief Operating Officer
- Marsha Balestri, BDM Vice President, Environmental Technology Development

ADC fully recognizes that as prime contractor it is unequivocally responsible for all contract requirements. Accordingly, the Project Manager will serve as the primary point of contact for DOE-OAK and will have direct responsibility for managing the subcontractors as well as any consultants who perform under this contract. He will ensure coordination and integration of subcontractor work so that ADC, PAI, and BDM will function as a seamless team.

ADC will apply to our subcontractors the same standards of performance, resource management,

and cost control to which we are committed.

ADC's Project Manager will monitor subcontractor performance on-site, and review the required reports which will be submitted to ADC on a regular basis. The Project Manager will meet regularly with on-site subcontractor supervisors. We have agreed to work as one homogeneous unit to the benefit of DOE-OAK. It will not be apparent to DOE-OAK who is employed by which company.

ADC also confirms that, as prime contractor, it will meet the contractual obligation of 51 percent of direct labor costs. The ADC Team does not anticipate any difficulty in meeting this requirement, based upon the estimated division of labor. The distribution of work by company will be reviewed semi-annually, and staffing adjustments may be applied to the resource projections as necessary.

ADC has developed draft statements of work and allocated Direct Productive Labor Hours to these companies. These subcontractors have developed cost proposals which have been incorporated into this proposal. A subcontract with each company will be executed upon contract award. Both of these companies have agreed in writing to accept all applicable contract terms and conditions which flow down from the ADC prime contract.

As we describe in detail in Volume III of this proposal, ADC's process for selecting our subcontractors consisted of many criteria; one of them was compatibility of the companies and the management staff. ADC, PAI, and BDM have highly compatible corporate cultures and values, including management philosophies, dedication to excellence, and commitment to client satisfaction. This compatibility reduces the possibility of problems in the subcontracting relationships. All three companies have demonstrated success in long-term contracts with teaming partners, and all three companies have made a full corporate commitment to ensure the



success of the mutually-agreed-upon approach for performance of this contract.

The decision to use these two subcontractors was guided by two goals: 1) to provide DOE-OAK with the highest possible quality of support services in the most timely and cost-effective manner; and 2) to complement ADC's resources by the addition of subcontractors with unique experience, skills, and depth directly applicable to DOE-OAK's current technical requirements as well as potential future requirements.

Our team offers the benefits of two Small Disadvantaged Businesses with the unique qualifications of DOE-OAK experience, balanced with the depth of resources and experience of BDM, a large DOE contractor.

ADC has entered into teaming and subcontract arrangements with firms of all sizes -- from small 8(a) firms to a Fortune 100 company. ADC is willing and able to take necessary steps to correct any problems with a subcontractor, just as we would with our own staff. Client satisfaction is of the utmost importance to all three companies and is essential to the continued growth of ADC.

ADC and its subcontractors, PAI and BDM, offer DOE-OAK a well balanced team with proven and complementary expertise in the specific tasks required. This is a team that can best perform and manage the work required.



SECTION 3

### 3.0 OTHER PERTINENT INFORMATION

The ADC team has no other pertinent information to add to this proposal.



**SECTION 4**

#### 4.0 EXCEPTIONS AND DEVIATIONS

The ADC Team takes no exceptions or deviations to the technical requirements of the solicitation.

