

**Technical Support for the Advisory Board on  
Radiation and Worker Health Review of  
NIOSH Dose Reconstruction Program**

**Volume 1: Technical Proposal  
Request for Proposal (RFP) 2003-N-00768**

Submitted to:

Centers for Disease Control and Prevention  
Acquisition and Assistance Field Branch  
Attention: RFP 2003-N-00768  
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Submitted by:

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June 2, 2003

**Information Required by Solicitation Clause L.3(c)(2)**

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**(iii) Required Statement:**

SC&A takes no exception to any of the terms, conditions, and provisions included in the solicitation. Pricing is given in the cost proposals for each of the Sample Tasks.

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\_\_\_\_\_  
Sanford Cohen, President

\_\_\_\_\_  
Date

## EXECUTIVE SUMMARY

S. Cohen & Associates (SC&A) has assembled a team which is uniquely qualified to provide technical support to the Advisory Board on Radiation and Worker Health Review (the Board) as part of the National Institute for Occupational Safety and Health's Dose Reconstruction Program. For the purposes of this proposal we have teamed with \_\_\_\_\_ and with \_\_\_\_\_

. In keeping with the Government's commitment to assist small and disadvantaged businesses, we have also made arrangements to bring on a qualified 8(a) subcontractor, \_\_\_\_\_, upon contract award.

Three attributes of the SC&A team separate us from our competition. First, our team offers *depth of expertise*. For the past 21 years, SC&A has been in the forefront of the radiation protection community. Our company President, Sanford Cohen, has dedicated his professional career to the radiological sciences. A nuclear engineer by training, Dr. Cohen founded SC&A in 1981. The company specializes in the assessment of radiation and radioactive materials in the workplace and environment and its associated risks to workers and the public health. We can provide expertise in radiological dose and risk assessment, dose reconstruction, environmental restoration and waste management, radiation sciences, health and safety analysis, public outreach, geographical information systems, and information management. SC&A is well known within the radiation protection community and is respected for its objectivity, scientific expertise, and communication abilities.

\_\_\_\_\_, SC&A's proposed Project Manager, has a Ph.D. in health physics, is certified by the American Board of Health Physics, and has over 30 years experience in providing health physics consulting services. He has completed numerous risk assessments for several Government and private sector clients and has been involved with historical dose reconstruction projects involving the people of the Republic of the Marshall Islands and the Idaho National Engineering and Environmental Laboratory (INEEL).

As a company, SC&A maintains a staff of highly qualified, technically skilled professionals. More than 70 percent of SC&A's professional staff have earned advanced degrees—approximately one-third at the Ph.D. level. The majority of staff members have 15 to 25 years of experience in solving complex scientific and technical problems. Many of our professionals are radiobiologists, radioecologists, environmental scientists, engineers, health physicists, chemists, and physicists. Other scientific disciplines include hydrogeology, metallurgy, geography, biology, epidemiology, toxicology, computer science, mathematics, and statistics. To complement our technical staff, SC&A also offers expertise in policy analysis, economics, law, communications, information management, and public outreach and education.

SC&A's corporate headquarters is located in McLean, Virginia with regional offices in Montgomery, Alabama, and St. Louis, Missouri. We also maintain a full service radiological laboratory, allowing us to empirically evaluate radiological issues.

\_\_\_\_\_, and its principal, \_\_\_\_\_, have unique expertise, experience, and capabilities to perform key tasks identified in the solicitation, particularly those related to Department of Energy (DOE) and Atomic Weapons Employer (AWE) site profiles, worker

profiles, and SEC reviews.                    and its associates have years of advanced health physics experience, both at DOE and in the commercial sector. Senior associates, such as                    and                    , are intimately familiar with historic dosimetry programs at DOE and AWE sites, and are knowledgeable of worker dose histories and operations throughout the 60-year history of these sites. Mr.                    , during his notable Federal government career at DOE, was a pioneer in identifying past radiation program deficiencies with respect to dosimetry and record-keeping practices, program management, and policy and standards, and identifying needed improvements.

                  offers extensive experience in radiological survey and personnel dosimetry programs, primarily for facilities associated with the National Institutes of Health. In addition,                    can provide expertise in radiological training, communication, and outreach, should such services be required on this project.

Second, the SC&A team offers *vast Federal contracts experience*. Throughout its history, SC&A has administered a number of large, multi-million dollar/multi-year, task-order contracts requiring multiple subcontractors, formal quality assurance/quality control programs, and their attendant management and auditing systems. SC&A's principal client is the Federal government, although we have conducted projects for State environmental agencies and private sector clients. About 80 percent of SC&A's contracts, valued at more than \$250 million, have been large task-order contracts for the Environmental Protection Agency (EPA), the Centers for Disease Control and Prevention (CDC), and the Nuclear Regulatory Commission (NRC). These contracts have encompassed more than 500 work assignments dealing with a broad range of health physics and radiological issues. Other clients have included the Defense Nuclear Facilities Safety Board (DNFSB), the Department of Justice, and the Congressional Office of Technology Assessment. Based on this experience, SC&A has developed the tools and the know how to manage large task order contracts, including comprehensive quality assurance and quality control plans, as well as document and software controls that have passed EPA and NRC audits.

Both                    and                    have actively supported Federal agencies, including the National Institutes of Health, the U.S. Forest Service, and the Federal Emergency Management Agency, as well as private clients such as Johns Hopkins University and the Federation of American Scientists.

The third attribute of the SC&A team is perhaps the most significant. *The team has neither an actual nor perceived conflict of interest with respect to DOE*. While most other radiological consulting companies have provided direct services to DOE and the nuclear utility industry, SC&A made a decision early in its existence to devote its resources to supporting those government agencies that regulate DOE and the nuclear industry. Thus, we have been very selective in our assignments and have implemented stringent conflict of interest standards within the company.

With these standards in mind, we disclose here that the SC&A laboratory is performing radiological analyses of environmental samples collected at DOE sites by DOE contractors. However, we do not believe this work will in any way present a conflict to the Board. In addition, none of the SC&A team has past or current contracts with NIOSH or its dose

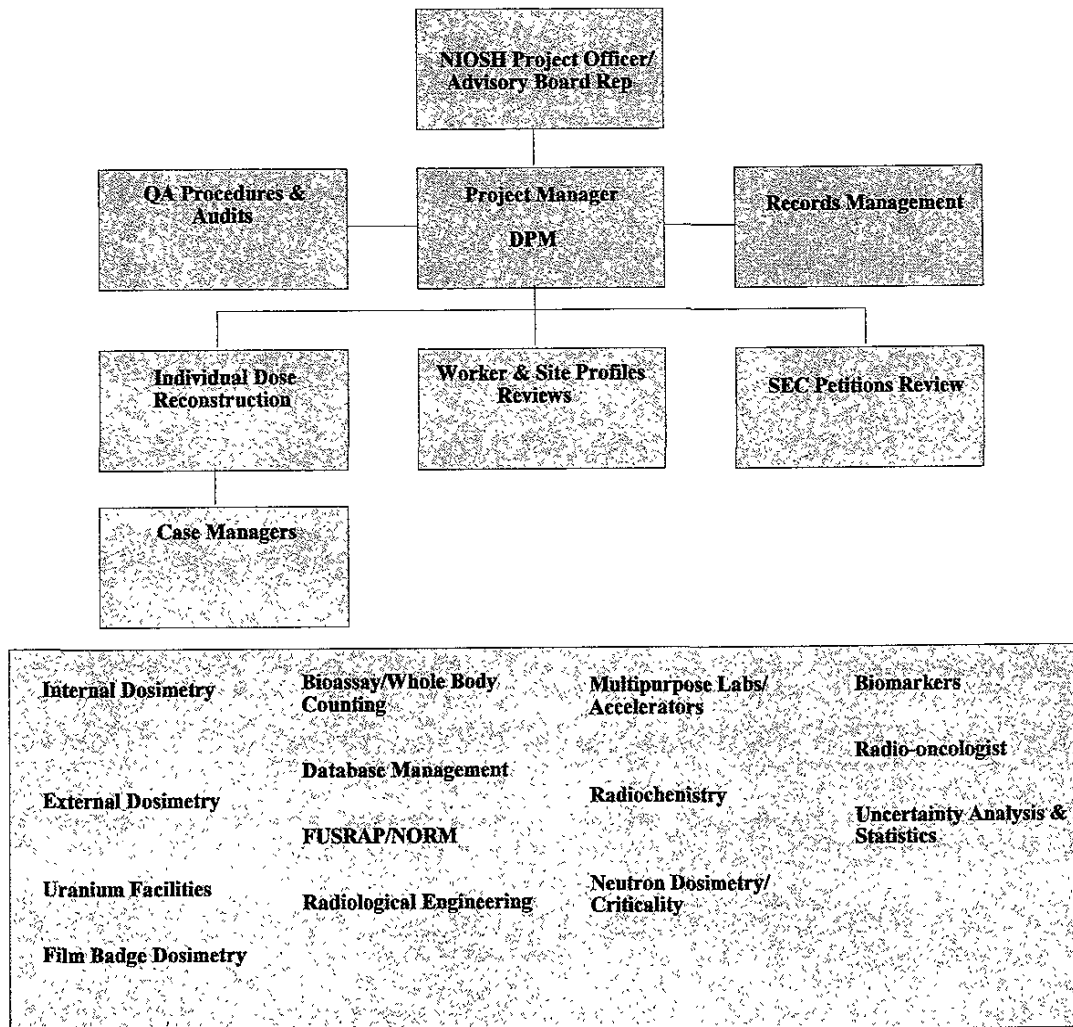
reconstruction contractors. Therefore, we are confident that our team is free of any actual or perceived conflict of interest.

It is our understanding that the primary role of the contractor on this project is to assist the Board in its efforts to advise the President on guidelines pertaining to Section 3623(c) of the Energy Employees Occupational Illness Compensation Program Act of 2000, particularly in terms of dose reconstruction and the allocation of risk. The contractor will be expected to review dose reconstructions performed by NIOSH, review Special Exposure Cohort (SEC) petitions, review worker and site profile databases, and provide a broad range of ad hoc technical support to the Board as required. The SC&A team's approach to the work required by the Board will draw upon the three attributes described above.

Much of the work done by SC&A and its other team members is similar in many respects to the proposed statement of work. SC&A has performed numerous health physics and nuclear safety investigations for the DNFSB regarding the safe operations of DOE facilities and has provided extensive health physics consulting support to NRC, the Atomic Industrial Forum, the Electric Power Research Institute, universities, and private sector clients. SC&A conducted the Phase I study of the INEEL dose reconstruction for CDC and is currently reconstructing the atmospheric source terms and associated doses to the public associated with historical operations at INEEL. In addition, SC&A has been leading the effort in support of the government of the Republic of the Marshall Islands to reconstruct the historical thyroid and whole body doses for the people of Rongelap and Utrik Atolls in the Marshall Islands.

Figure ES-1 presents the proposed organization chart for this project. We are proposing a management structure that includes both a Project Manager, \_\_\_\_\_, and a Deputy Project Manager, \_\_\_\_\_. This management construct best leverages the unusual qualifications of these two individuals and will offer an energy and synergism to the project that few companies can rival. As an experienced Certified Health Physicist, \_\_\_\_\_ can provide the technical oversight necessary to a project of this complexity. His understanding of radiation dose assessment techniques and his experience in dose reconstruction exercises makes him the ideal Project Manager. In addition, \_\_\_\_\_ is the Senior Vice President of SC&A and has over 15 years of experience in managing large task-order contracts for government agencies. Complementing \_\_\_\_\_'s technical expertise will be \_\_\_\_\_'s unparalleled familiarity with DOE and AWE facilities. \_\_\_\_\_ has over 20 years of experience with DOE, including serving as Deputy Assistant Secretary for Health and Safety. Together, \_\_\_\_\_ and \_\_\_\_\_ possess the knowledge and expertise necessary to direct any task orders issued by the Advisory Board.

The project team consists of nine key individuals (designated by an asterisk in Exhibit ES-1) that will be dedicated to the project and will serve as the project management team. These nine individuals will be supported by 24 highly specialized experts in various disciplines critical to the mission of the contract. As Task Order Request Packages (TORPs) arrive at SC&A, this team will prepare comprehensive technical and cost proposals and will assign staff to review teams based on the specific requirements of each case. Depending on the case and the complexity of the review (e.g., basic versus advanced reviews versus blind dose reconstructions), a review team



**Exhibit ES-1. Organizational Chart**

(\* indicates key personnel)

might consist of only one or two persons or it might consist of several individuals working under the direction of a Case Manager. In forming these teams, we will draw from the specialized technical resources identified in Exhibit ES-1. All work will be performed under a highly structured and transparent quality assurance/quality control and documentation process, which includes audit forms and checklists that correspond to the requirements of Part 81 of Title 42 of the *U.S. Code of Federal Regulations* (CFR), "Probability of Causation," 42 CFR 82, "Dose Reconstruction," 42 CFR 83, "Special Exposure Cohorts," OCAS-IG-001, "External Dose Reconstruction and Implementation Guideline," and OCAS-IG-002, "Internal Dose Reconstruction and Implementation Guideline."

Under this organization, Drs. \_\_\_\_\_ will be responsible for ensuring that all basic and advanced reviews and blind dose reconstructions are performed in a fair and consistent manner, are well-grounded in the best available scientific knowledge, and give the benefit of the

doubt to the claimant. They will either serve as case managers themselves or direct reviews performed by other case managers. In Exhibit ES-1, we have identified three case managers, but any member of the project team can serve as a case manager, depending on the nature of the case.

Because of their familiarity with DOE and AWE facilities, worker profile and site profile reviews will be performed by \_\_\_\_\_, which will also support Drs. \_\_\_\_\_ in advanced reviews and blind dose reconstructions. SEC petition reviews will be performed under the direction of \_\_\_\_\_. \_\_\_\_\_ is known not only for his expertise in nuclear engineering, but also as an advocate for worker rights. We believe that his presence on the SC&A team will enhance the credibility of our findings with the SEC applicants.

For basic reviews, the emphasis will be placed on ensuring that dose reconstructions were performed in accordance with 42 CFR 82, as well as NIOSH procedures and guidelines, using a hierarchy of methods (i.e., highest priority given to complete and adequate dosimetry records and, lacking adequate dosimetry records, falling back to co-worker records and, lacking that, falling back to area dosimeters, etc.). Basic reviews will evaluate (1) the data collection process, (2) the claimant interview, (3) external and internal dose reconstruction, and (4) relevant NIOSH procedures and methods. If the dose reconstruction utilized worker profile and site profile databases, the basic reviews will also review those portions of the databases used to perform the dose reconstructions. Our basic and advanced reviews will be performed in accordance with the review procedures provided in Appendix C of this proposal.

Advanced reviews will go beyond the basic reviews in that they will require a much more extensive assessment of the data collection process performed on behalf of the case. We will critically review the records upon which the dose reconstructions were performed for completeness and adequacy, and will compare them with the claimant interview forms and with the worker profile and site profile databases. For the important contributors to exposure, we will draw upon the highly specialized expertise of the members of the project team (i.e., neutron dosimetry, criticality dosimetry, uranium and TRU internal dosimetry and bioassay, film badge dosimetry). Our objective for both basic and advanced reviews will be to assess the consistency and reasonableness of the assumptions and determine whether patterns emerge which reveal fundamental flaws or systematic biases in the dose reconstruction process.

For blind dose reconstructions and advanced reviews, we will employ the entire administrative record, perhaps visit with DOE and DOE contractor personnel, if needed, and perform supplemental interviews, if needed and if authorized by the Board. In the case of blind dose reconstructions, unlike basic and advanced reviews, we assume that we will not have access to the dose reconstruction or IREP input/output prepared by NIOSH.

Finally, we assume that we may be called upon to review worker and site profile databases and perform special studies as requested by the Board. It is for this reason that we have assembled a large, highly experienced project team. With the SC&A team, the Board can be assured of a contractor who is dedicated to the pursuit of information, technical and scientific integrity, and high standards of quality. This will be an important contract to SC&A, and it will receive the timely attention of senior management. The resources assembled for this proposal are among the best in the world and can be relied upon to recognize, understand, and meet the substantial challenges of conducting reviews and audits that will withstand the most intense scientific scrutiny and be accepted by the claimants as fair and unbiased. In addition, the three attributes of the SC&A team—depth of expertise, vast Federal contracts experience, and no conflict of interest—make us the best possible choice to fulfill the requirements of this proposal. The project team stands ready to assist the Board in any way possible.

#### Unique Qualifications

- SC&A staff represent some of the most experienced and nationally recognized experts in health physics and internal and external dosimetry.
- SC&A has vast experience in managing large task-order contracts, particularly those dealing with radiological issues.
- SC&A has extensive experience in historical document retrieval for the purposes of dose reconstruction.
- SC&A has a corporate Quality Management Plan and Standard Operating Procedures that meet ANSI and EPA requirements.
- By teaming with \_\_\_\_\_, we bring to the project extensive knowledge of the DOE complex and AWE facilities and its historical practices.
- By teaming with \_\_\_\_\_, we bring to the project a vast amount of hands-on experience in radiation protection practices.

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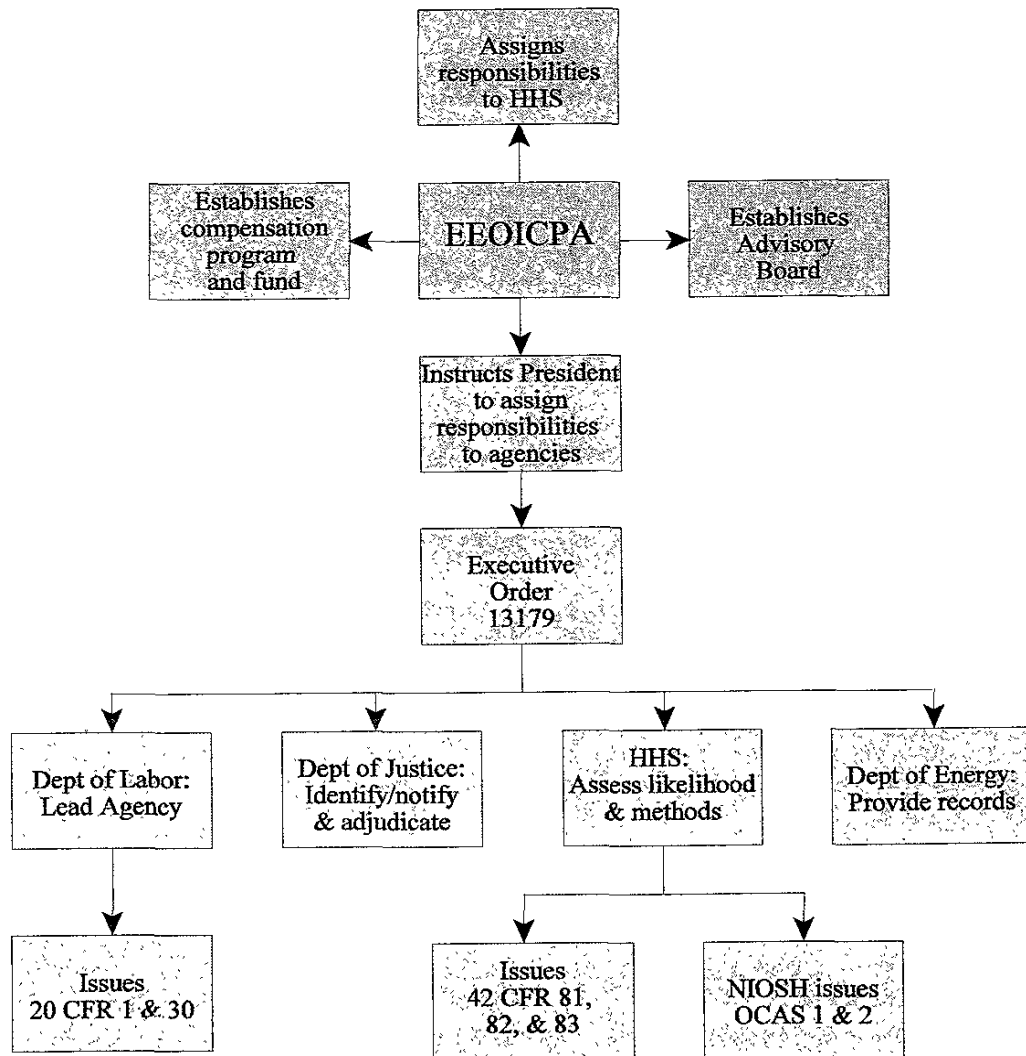
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## 1.0 UNDERSTANDING THE PURPOSE AND OBJECTIVES

Exhibit 1-1 graphically presents our understanding of the overall statutory/regulatory framework within which this contract will be implemented. Within this framework, compensation is provided to covered employees via two administrative categories of procedures: (1) those that are used if the individual is a member of a Special Exposure Cohort (SEC), and (2) those that are based on a dose reconstruction and an assessment of probability of causation (PC) and are used, in part, to determine whether compensation is warranted. The former process requires appropriate filings and administrative determinations, but does not require a dose reconstruction. The latter process also requires appropriate filings and administrative determinations, but will include dose reconstructions and an assessment of PC. This proposal of work is concerned primarily with the latter category of claimants.

Potential claimants file Forms EE-1, 2, 3, 4, and 7, as applicable, along with a narrative medical report, with the U.S. Department of Labor (DOL). The DOL, as lead agency, authorizes the Department of Energy (DOE) to compile all applicable records. The DOL also authorizes the National Institute for Occupational Safety and Health (NIOSH) to begin the dose reconstruction process. The reconstructed doses are provided to the DOL, along with documentation, in a form appropriate for input to the computer code, Interactive RadioEpidemiological Program (IREP). The output of IREP is used to support the adjudication process for claimant compensation. Within this process, Section 3624 of the Energy Employees Occupational Illness Compensation Program Act (EEOICPA) requires: (1) the formation of the Advisory Board on Radiation and Worker Health, (2) the President to make appointments to the Board, including its chairman, and (3) the Board to advise the President on guidelines pertaining to Section 3623(c) of the EEOICPA (i.e., dose reconstruction and the allocation of risk), evaluate the validity of the reconstructed doses, and evaluate other related matters. It is our understanding that the primary role of the contractor on this project is to assist the Board in reviewing the dose reconstructions performed in support of adjudicated claims and their accompanying administrative records.

Section 3626 of the Act also requires the Board to advise the President whether there are classes of employees at any DOE facility that should be treated as members of an SEC. In fulfilling these responsibilities, the Board will be required to make certain radiological determinations regarding the records and exposures experienced by that cohort. The Board will also be called upon to review SEC petitions filed under Part 83 of Title 42 of the *U.S. Code of Federal Regulations* (CFR), "Special Exposure Cohort." It is our understanding that the contractor will be required to assist the Board in fulfilling its mission on matters related to SEC petitions. SEC petition reviews could require a substantial level of effort and the services of highly specialized, technically diverse, and experienced personnel. In addition, this work will need to be performed simultaneously with basic and advanced reviews, and perhaps blind dose reconstructions. It is for this reason that we have formed a large, technically diverse team. In addition, we are prepared to expand upon the resources of the team members or add new team members, as needed. This can be accomplished by drawing from the existing resources within our team, adding new associates, or bringing aboard new subcontractors. SC&A is very experienced in efficiently responding to surges of unique and highly specialized work under task order contracts.



**Exhibit 1-1. EEOICPA Regulatory Framework**

It is SC&A's understanding that NIOSH currently has approximately 12,000 claims in its possession that require dose reconstructions. New claims are referred to NIOSH by the DOL at a rate of about 200 per week. These dose reconstructions are being performed by NIOSH, with the assistance of its contractors, in accordance with the requirements set forth in 42 CFR Part 82, "Dose Reconstruction," and the guidelines provided in OCAS-IG-001, "External Dose Reconstruction Implementation Guide," and OCAS-IG-002, "Internal Dose Reconstruction Implementation Guide." The results of these dose reconstructions, along with other claimant information delineated in 42 CFR Part 81.5, are being used by the DOL as input into IREP to derive the probability that a claimant's radiogenic cancer, as delineated in 42 CFR Part 81, was

caused by exposure to radiation received by the claimant during the course of performing his or her duties at a DOE facility or Atomic Weapons Employer (AWE) facility as listed in the *Federal Register*, Volume 66, Number 112, page 31218, June 11, 2001, and as revised in subsequent notices. In accordance with 42 CFR Part 82, the results of these probability-of-causation calculations, as derived using IREP, are used by the DOL for determining whether the individual with cancer is found “at least as likely as not” to have sustained the cancer from work-related exposures to ionizing radiation.

We understand that the reconstruction of doses is concerned with the dose delivered to particular organs over specific time periods and not the total effective dose commitment. In addition, “missed dose” is of particular concern to a dose reconstruction. As such, this program differs in many important ways from the dose assessments performed for the purpose of demonstrating compliance with radiation protection standards.

SC&A understands that a critical factor affecting how doses are reconstructed is the amount of time available to adjudicate the claims. The claimants, because of their medical conditions, are especially entitled to a speedy resolution of their claims. In response to the EEOICPA, the dose reconstruction process is not a research project, as it is for many of the offsite dose reconstructions being performed by the Centers for Disease Control and Prevention (CDC). Under the NIOSH program, a delicate balance must be struck between efficacy and precision. A high level of precision, when not required to support an adjudicated decision, will only unnecessarily delay the decision-making process. SC&A believes that implementing dose reconstructions with a full appreciation of this balance is critical to the success of this project. This overarching principle applies to the dose reconstructions performed by NIOSH, the reviews of the dose reconstructions that will be performed on this project on behalf of the Advisory Board, and the review of SEC petitions. Nevertheless, the dose reconstructions and reviews of SEC petitions must be fair, consistent, and well grounded in the best scientific knowledge. They must also give the benefit of the doubt to the claimant.

It is SC&A’s understanding that our role on this project is to assist the Advisory Board in the fulfillment of its mission under Section 3624 of the EEOICPA, specifically Section (b)(2), which states, “The Board shall advise the President on the scientific validity and quality of dose estimation and reconstruction efforts being performed for purposes of the compensation program.” In addition, our role is to assist the Board in fulfillment of its mission under Section 3626 of the EEOICPA (and draft 42 CFR Part 83) related to the review of SEC petitions.

In formulating our concept of operations for this project, we struggled with the degree to which we, as consultants to the Advisory Board, will comment on the validity of any given adjudicated decision. Unless specifically requested by the Board, we believe that such commentary goes well beyond our mandate. It is our understanding that we are not part of an appeals process. We are simply to help the Board probe technical issues, to reveal and gain insight into areas where the dose reconstructions may have had problems, and to seek out possible systematic errors or biases in the way in which the doses are reconstructed. We believe we can best serve the Board by being a source of highly credible analysts that, in the end, will provide confidence to all

concerned that the decisions being made under the Act are fair, consistent, and well grounded in the best scientific knowledge, and that they give the benefit of the doubt to the claimant.



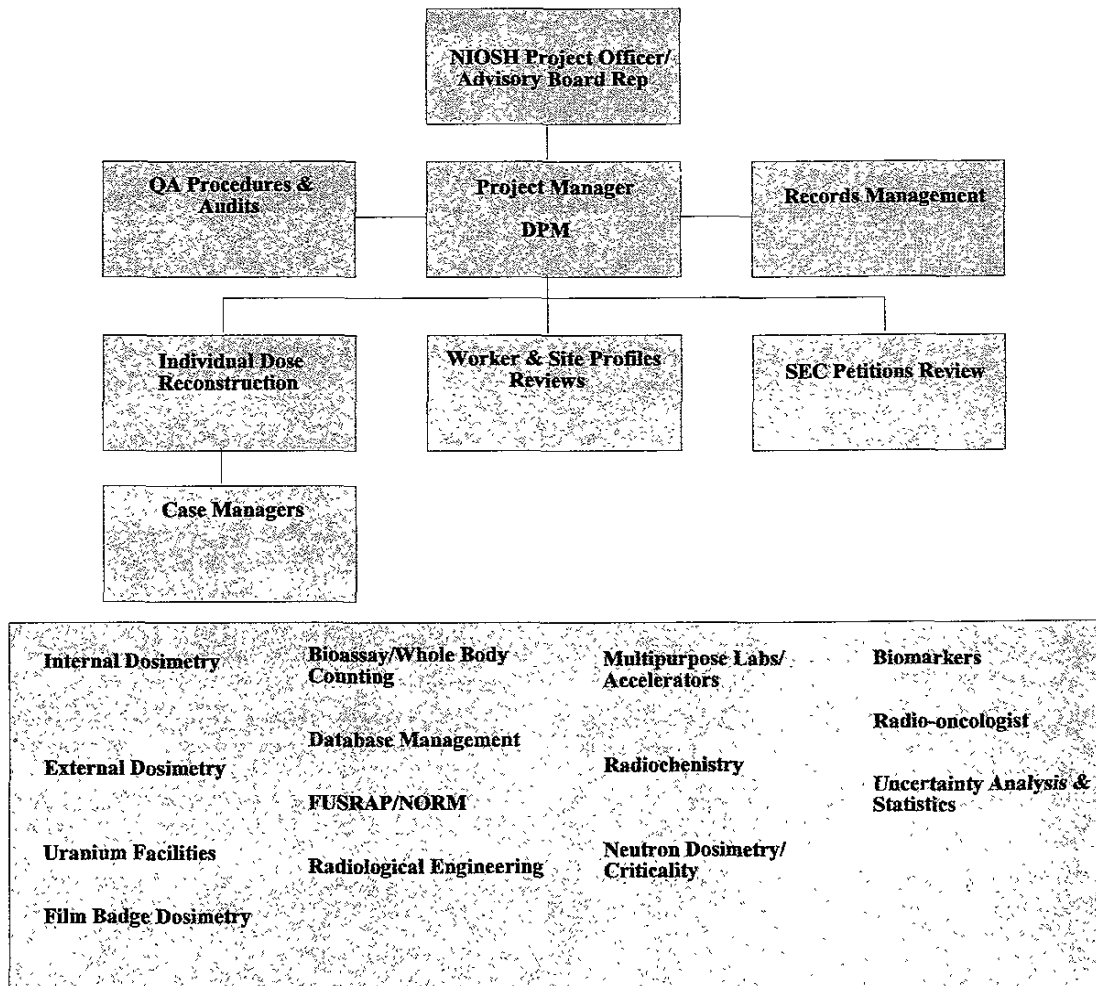
## 2.0 MANAGEMENT APPROACH

### 2.1 Project Organization

SC&A has assembled a large, highly responsive team to address the multi-disciplinary areas of the statement of work (SOW). Exhibit 2-1 shows the overall organizational structure of the project. The individuals designated with asterisks (\*) are the program management team and the key individuals on the project. A total of nine key personnel are proposed. These individuals will not be replaced without written approval of the Contract Manager. These individuals are prepared to commit at least half time, and, for most individuals, full time to this project for its entire duration. Each key person has a back up. The individuals on the bottom of the chart, many of whom are nationally and internationally recognized experts on internal and external dosimetry, bioassay, radiation protection, and other specialized technical areas, serve as resources to the project management team on specific task orders, cases, and Special Exposure Cohort (SEC) petition reviews. Section 4 of this proposal presents biosketches of each of the key individuals on the project, along with statements addressing their level of commitment. Appendix A presents complete resumes of all individuals on the project team. Appendix B presents signed statements by each member of the project team disclosing any potential, actual, or perceived conflict of interest issues.

As prime contractor for the proposed effort, SC&A will oversee and manage all project activities and carry out all work, relying on the company's 21-plus years of Federal contracting experience to ensure maximum performance within budgetary and contractual limitations. SC&A has a history of close working relationships with its clients and subcontractors on Federal contracts which will enhance our ability to communicate effectively and resolve issues that may arise in the performance of this contract. The SC&A team will be managed by \_\_\_\_\_, who is the Senior Vice President of SC&A, and Mr. \_\_\_\_\_, who will serve as Deputy Project Manager. Dr. \_\_\_\_\_ is eminently qualified to oversee the proposed effort. He has the authority necessary to fulfill the requirements of this contract and to complete task orders on schedule and within budget. Dr. \_\_\_\_\_ has over 30 years experience as a consultant to the Federal government in the area of radiation protection and has managed numerous major (multi-year, multi-million dollar) contracts for Federal agencies, including the Environmental Protection Agency (EPA), Nuclear Regulatory Commission (NRC), and the Centers for Disease Control (CDC). In addition, Dr. \_\_\_\_\_ has been fully certified by the American Board of Health Physics since 1976.

As Project Manager, Dr. \_\_\_\_\_ will exercise project fiscal control and bear ultimate responsibility for ensuring that all technical contractual obligations are fully satisfied in a timely manner. Dr. \_\_\_\_\_ has a reputation among his clients for providing efficient service within budget estimates, while maintaining a proactive approach to problem resolution. Should, for any reason, Dr. \_\_\_\_\_ become unavailable to the project, the President and CEO of SC&A, Dr. Sanford Cohen, will assume project management responsibilities. Dr. Cohen has a Ph.D. in Nuclear Engineering and has over 35 years experience in managing large, complex government task order contracts concerned with radiological engineering and radiation dose assessment issues.



We have assigned \_\_\_\_\_ as Deputy Project Manager working alongside Dr. \_\_\_\_\_ on every aspect of this project. We elected to take this approach because \_\_\_\_\_ is intimately familiar with DOE and AWE facilities as a result of his 21 years of experience with DOE in the area of health and safety oversight of DOE programs. \_\_\_\_\_'s understanding of DOE and AWE sites, coupled with \_\_\_\_\_ qualifications in health physics and experience managing large Government task order contracts, creates an extremely powerful project management team.

Dr. \_\_\_\_\_ will be responsible for maintaining quality and configuration control over all standard operating procedures (SOPs) used on the project (Section 3 presents the technical approach and review/auditing procedures that will be used on the project) and for QA audits verifying and documenting that all work is being performed and documented in accordance with approved procedures. His internal audits of SC&A's task orders will also ensure that areas for which deviations from the SOPs are needed and implemented are documented (in accordance with the SOPs) and that, if necessary, revisions to the SOPs to accommodate lessons learned are

made. Dr. [redacted] has over 20 years experience in assessing, integrating, and implementing diverse new technologies; managing departments; and directing specialists with advanced degrees in projects and programs, ranging from small studies to billion dollar, first-of-a-kind, mega-projects for commercial companies, electric utilities, government agencies, and universities. He was formerly Manager and Chief Engineer of Nuclear Engineering, responsible for personnel and technical direction of all nuclear engineering activities, for a major architectural/engineering firm.

Ms. [redacted] will serve as the project's Records Management specialist. Ms. [redacted] has served as records management specialist at SC&A for the past 13 years and was responsible for health physics records management at GPU Nuclear for 10 years. She will be the central repository for all documents and records received from the Project Officer pertaining to all Task Order Request Packages (TORPs), all project procedures, all project deliverables, and all internal and external correspondence. She will establish a hard copy and electronic filing system that will maintain the confidentiality of information, while still making it accessible to authorized individuals in accordance with project SOPs.

Dr. [redacted] and Dr. [redacted] will serve as the co-lead dose reconstruction reviewers. Dr. [redacted] has extensive experience in dose reconstruction in the Marshall Islands and served as the Radiation Protection Manager at GPU Nuclear during the cleanup of Three Mile Island Nuclear Generating Station Unit 2. As a result, he is intimately familiar with external and internal dosimetry issues associated with complex health physics operations. Dr. [redacted] is an internationally recognized expert on internal dosimetry. Drs. [redacted] will be directly responsible for all dose reconstruction reviews and blind dose reconstruction performed on this project, ensuring that any individual assigned to perform dose reconstruction reviews and blind dose reconstructions does so in accordance with the SOPs, and that deviations from the SOPs receive the proper review, approval, and documentation.

Messrs. [redacted] and [redacted] and [redacted] will serve as Case Managers. Because of the large number of basic and advanced reviews required by this project, we have elected to designate at least three Case Managers to the project reporting directly to Drs. [redacted]. Additional Case Managers will be assigned as the number of cases increase. In many cases, a single person may be able to manage more than one case; while in others, such as advanced reviews and blind dose reconstructions, one person may only be able to manage a single case at a time. We believe strongly in the concept of a "Case Manager," because it helps to ensure accountability and transparency for each case.

[redacted] will wear two hats on this project. In addition to his role as Deputy Project Manager, he will serve as lead reviewer of worker and site profiles. As explained earlier, [redacted] has extensive knowledge of the health and safety issues at DOE and AWE facilities, and is therefore especially well qualified to provide independent reviews of worker and site profiles, as directed by the Board. [redacted] served as DOE's Deputy Assistant Secretary for Health and Safety and is intimately familiar with DOE operations and radiation protection practices across the DOE complex. He will also support the Case Managers in the performance of both basic and advanced reviews and blind dose reconstructions, where worker

and site profiles are critical to the dose reconstructions. He will also be available to support SEC Petition reviews. [redacted] will be assisted by Mr. [redacted] and Dr. [redacted]. Both Mr. [redacted] and Dr. [redacted] have over 30 years experience, a large portion of which consisted of working with [redacted] on matters related to ES&H at DOE facilities.

[redacted] will serve as lead SEC petition reviewer. [redacted] is an expert in nuclear engineering and also a nationally recognized advocate for worker rights. He will be responsible for overseeing SEC petition reviews, with the assistance of other members of the project team as required, to ensure that the reviews are performed in accordance with procedures prepared specifically for this project (see Section 3), and that deviations from the SOPs receive the proper review, approval, and documentation. In this capacity, [redacted] can draw upon any member of the project team.

Drs. [redacted] and [redacted], both of whom are recognized experts in statistics and uncertainty analysis, will serve as a resource to the other key individuals on the project in matters pertaining to statistics and uncertainty analysis. Their primary responsibility will be to review the distributions of the parameters used as input to IREP based on the information provided in the administrative record. Since the ultimate objective of dose reconstruction is to construct distributions characterizing the uncertainty in the doses experienced by the claimants and which serve as input to IREP, we believe that every case review must be reviewed by Dr. [redacted] or Dr. [redacted].

The other members of the SC&A team are critical to the success of the project because of their specialized expertise in each of the technical areas of this project. They will be called upon by the Case Managers as required to ensure a complete and quality audit of each case and SEC petition.

## 2.2 Flow of Work

The project calls for the performance of 70 Basic Reviews, 70 Advanced Reviews, 10 Blind Reviews, 5 Worker Profile Reviews, and 5 Site Profile Reviews in the first year of this task order contract. We assume that Example Tasks 1 and 2 are representative of the types of TORPs that will be issued periodically by the Project Officer. This type of project is best managed and performed using a matrix organization consisting of Case Managers, who are responsible for one or more cases, and a team of technical specialists who will work on one or more cases, under the direction of the Case Managers, depending on the technical requirements of the case. Any person in the organization chart provided in Exhibit 2-1 could serve as a Case Manager, depending on the nature of the task, and any person on the team could also be assigned specific technical responsibilities on a case.

We struggled with identifying the scope, schedule, level of effort, and staffing required for a basic review, advanced review, or a blind dose reconstruction for obvious reasons—until we see the administrative record for a given case, such estimates would be highly speculative. We prepared very detailed checklists (see Appendix C) to be used as we systematically perform and document our basic and advanced reviews. Inspection of the checklists reveals that a basic

review, and especially an advanced review or a blind dose reconstruction, could require a considerable level of effort. Because we expect that the level of effort required for each case that comprises a TORP can vary widely, we have elected to begin the process of preparing technical and cost proposals by first sorting the cases into two categories: those requiring a relatively large level of effort with several staff members, and those that could be performed by a single individual in a relatively short period of time.

Notwithstanding uncertainties in the scope of a given review, we also understand that we must make the best estimates we can in the scope, schedule, and resources required, given the limited information currently available to us. We believe that the basic reviews of many cases could be performed by a single person in a matter of a few days. However, some basic reviews may require several technical specialists and a week or more to complete. We believe that all advanced reviews will require a minimum of a three-person team, including the Case Manager, and several weeks to complete.

The functional areas that will be performed in a basic review will include dose reconstruction reviews and claimant interview record reviews (according to the checklists in Appendix C). But it is our understanding that, if the dose reconstruction for a given case also required the utilization of worker and site profile information, even our basic reviews will require us to review at least a portion of the worker profile and site profile databases.

We believe that advanced reviews, using our procedures in Appendix C, will be much more extensive than the basic reviews because they will require ensuring that all sources of potentially relevant information and records were considered. This could include meetings with site personnel and cross-checking the claimant interview questionnaire with the data used for the dose reconstruction and with the worker profile and site profile databases. If authorized by the Board, advanced reviews and blind dose reconstructions may require meetings with site personnel,<sup>1</sup> requests for additional information, and perhaps supplemental claimant interviews (again, if authorized by the Board and if approved by the claimant or the claimant's representative). We will likely also review co-worker records and interview co-workers, especially if dosimetry records are deficient.

Such reviews certainly sound like they could easily grow into very large efforts, and, in theory, they can. However, at the same time, as stated earlier, these reviews are not research projects. Our objective is not to reconstruct highly precise and complete historical doses. Rather, our goal is to perform reviews that will identify areas in which the method used to reconstruct the doses (1) may have errors or systematic biases, and/or (2) could have resulted in substantively errant reconstructed doses. We believe that, on average, each team will be able to complete a basic review and deliver its work product to the Board within one week from the date of authorization to proceed. However, some cases may require a somewhat longer period of time. For advanced reviews and blind dose reconstructions, we believe that we will be able to deliver our work

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<sup>1</sup> We understand, based on our review of the pre-proposal conference meeting minutes, that visits to DOE sites will not be necessary, but offsite meetings with key DOE and DOE contractor personnel may be required as part of advanced reviews and blind dose reconstructions.

product to the Board within four weeks from authorization to proceed. In cases in which the review reveals unresolved data inconsistencies, questionable assumptions, calculational errors, or similar discrepancies, it may be beneficial and expeditious to develop a working relationship with the original authors of the dose reconstructions that we are requested to review.

It is our expectation that the first few basic and advanced reviews will require more time to complete because we will be on a learning curve. However, as we become more familiar with worker and site profiles, our efficiency will continually increase and the level of effort and time required to perform basic, advanced, and blind dose reconstructions will continually decrease.

Assuming each advanced review and blind dose reconstruction will require a three-person team and four weeks to complete (not all team members will be devoted to each review for the entire duration of the review), and given that our project team consists of 35 individuals, SC&A will be able to form as many as 10 teams to readily meet the solicitation requirements of 70 Basic Reviews, 70 Advanced Reviews, 10 Blind Reviews, 5 Worker Profile Reviews, and 5 Site Profile Reviews during the first year, including tasks related to worker profile and site profile reviews, SEC petition reviews, and other ad hoc investigations. We have assembled a large team with the specific objective of providing the ability to handle widely varying work loads and highly diverse cases, some of which may require very unique and specialized expertise.

Dr. \_\_\_\_\_ and Mr. \_\_\_\_\_ will interact directly with the Case Managers on technical progress and issues pertaining to their specific work products. The Case Managers will be responsible for their respective cases, including planning, scheduling, and cost control, as well as the technical quality of the deliverables. They will be accountable to the Project Manager for ensuring the timely and cost-effective preparation of high-quality deliverables. More specifically, the Case Managers will be responsible for the following:

- Supervising all work performed by the staff assigned to their cases
- Ensuring that work is performed in conformance with project SOPs and quality assurance (QA) requirements
- Reporting the status of assigned work to the Project Manager

### **2.3 Procedures and Training**

All reviews and audits performed on the project will be performed and documented in accordance with SOPs for auditing external and internal dose reconstructions, worker profiles, claimant interviews, site profiles, and SEC petitions (see Section 3). Each of the key members of the project team and each Case Manager will be trained in the use of these procedures at SC&A's expense.

## 2.4 SC&A Methodology to Ensure Completion of Tasks

### 2.4.1 Management of Complex, Multi-Task and Multi-Disciplinary Contracts

SC&A has a wealth of experience managing complex, multi-task, and multi-disciplinary contracts. Over its 22-year history, SC&A has managed more than 20 such contracts, involving complex subject matter and numerous and simultaneous task orders (often more than 25 at a time), requiring teams of staff comprised of scientists, health physicists, regulatory specialists, engineers, and public outreach and communications specialists. Many of these contracts have been managed by SC&A's proposed Project Manager, Dr. . For this effort, SC&A has assembled a team capable of responding to the technical requirements encompassed by the SOW. However, should additional or more diverse specialized expertise be required, SC&A's active list of Associates could be utilized. Or, if an unanticipated work requirement should arise, SC&A is willing to subcontract outside of the team assembled for the purposes of this proposal. (SC&A has established procedures for competitive procurement of new subcontractors.) A gap in existing expertise should be recognizable very early in the performance of a task order (most likely at the work plan development phase), thus allowing sufficient time for SC&A to respond. SC&A will implement the following procedures to ensure effective management of the contract SOW areas.

#### *Review and Distribution of Task Orders in a Timely Manner*

SC&A has time-tested procedures to ensure the timely review and distribution of task orders. The following procedures will be performed within 14 calendar days after receipt of a TORP:

- When the Project Manager receives a TORP from the Project Officer, he will first review it for Organizational Conflict of Interest (OCI), assess its requirements for resources with the key members of the team, and then determine how best to meet the requirements of the TORP, without impacting the resources available for ongoing tasks. At this point in the process, the Project Manager, in consultation with the Deputy Project Manager, will make a first attempt at sorting the tasks into categories regarding scope and level of effort.
- After the allocation of SC&A resources has been established, the Project Manager will select the Case Managers, who will perform or oversee the performance of the specific cases that comprise the TORP.
- If necessary, the SC&A Project Manager, Deputy Project Manager, and Case Managers will contact the Project Officer or his designee to clarify any issues that are unclear in the TORP and to gain a more complete understanding of the scope of work. After that interaction (which may be in person or by telephone), the Project Manager, in consultation with the Deputy Project Manager and the designated Case Managers, will commence preparation of the technical and cost proposal for the TORP.

At no time will SC&A delay the initiation of TORPs. Work will commence when the technical and cost proposal for the TORP is approved and SC&A receives notice to proceed.

### *Tracking Progress of Cases and Task Orders*

Once the TORP is approved, a Task Order will be issued. The Project Manager will oversee the Task Order in accordance with established management, QA, and information system requirements. Technical and administrative communications will be maintained within the SC&A team and with the Project Officer by the SC&A Project Manager, Deputy Project Manager and/or Case Managers, under the cognizance and direction of the Project Manager.

The level of effort for each participant on each case and on the overall Task Order will be stated in the technical and cost proposal for the associated TORP, and each participant will be informed of the scope of the effort and the estimate made for his/her time on the project. Moreover, the performance of each participant will be judged in part by his/her satisfaction of the commitment made to and performance on the project. Each participant's actual level of effort will be monitored carefully each month through the job-cost reports by the Case Manager and the Project Manager, who will hold conferences to discuss issues, problems, and potential solutions related to the project as needed, but at least weekly.

There are three basic stages to the successful tracking and controlling of contracts involving multiple task orders and multiple cases and/or subtasks within each task order: (1) defining the cases and/or subtasks comprising the task order; (2) entering and analyzing the activity data for each task order, case, and subtask (cost and performance measures); and (3) updating and reporting these data. These activities can be more easily accomplished with the aid of modern software packages, and SC&A will use its existing automated Project Management System (PMS) and Management Information System (MIS) programs.

### *Cost Projection Accuracy*

One of the most important lessons learned in previous task order contracts was the need to develop a comprehensive MIS and supporting databases to assist in cost projection and management. The system that SC&A has developed for use on earlier task order contracts supports invoices and monthly progress and projection reports. Moreover, the system is extremely valuable in tracking and controlling cost and schedule performance for individual task orders at both the task, case, and subtask level. It is supported by input data from the SC&A accounting system. A separate database is used to track subcontractor hours and costs.

SC&A has proven systems and procedures in place for cost control. At the time a task order is issued, SC&A assigns a job identifier to the project. If necessary, an identifier is assigned to each case and/or subtask within the task order. Uniquely identified time sheets are routinely issued in advance to each employee. Time sheets, Associate invoices, and subcontractor invoices are received and posted on a monthly basis. Individuals working on a project charge their time each day to the appropriate job identifiers. For quick-response task orders, charges are obtained by the Case Managers weekly or even daily, if required for budget control. Project charges on

time sheets and Associate invoices are certified by the individual and reviewed by the Case Managers, the Project Manager, and the accounting department. Other direct costs (ODCs), after being checked for correct authorization, are processed in the same way. Subcontractors follow similar procedures.

This system of reporting and approving contract expenditures is used to produce a Cost Management Report for comparison to the Cost Plan. The Cost Management Report is used for project monitoring and control to determine accrued costs for the current reporting period, to forecast accrued costs for subsequent reporting periods, and to anticipate total costs for project completion.

The Cost Plan provides a baseline for measuring cost variance on a contract and basic information for projecting costs and re-budgeting, if necessary. It also addresses each specific task order, case, subtask, project phase, or any other work elements required by the contract, since planning and reporting by elements of cost may be required, in addition to planning and reporting by elements of work.

The Project Manager checks the costs against the Cost Plan to ensure that the work is proceeding within budget. Weekly informal review meetings (by telephone, if necessary) are held among the Project Manager, Deputy Project Manager, the Case Managers, and technical staff to discuss technical progress and expenditure rates in order to keep these two aspects of the project in balance. Potential problem areas are flagged so that they can be dealt with at the earliest possible stage to minimize the impact on the project. At least one of the weekly meetings each month includes a formal review of progress and budget.

Using either the accounting system or the MIS, SC&A will be able to provide the NIOSH Project Officer or Contracting Officer with any kind of *ad hoc* report or cost projection. Although the complete range of such requests may vary, listed below are some of the ad hoc reports requested and provided under previous contracts:

- Estimates of costs and hours to complete near the end of the period of performance
- Reconciliation of booked versus billed costs for a contract as a whole or for a specific task order
- Schedules of ODCs by cost element
- Labor costs and ODCs by cost element for specific subcontractors under specific task orders, cases, and/or subtask
- List of task orders with ODC costs greater than a specified percentage of total estimated cost

Finally, SC&A has in place an approved Government Property Control System which will govern the management of any government-furnished property under this contract.

#### 2.4.2 Subcontractor Management

As the prime contractor, SC&A will be responsible for overall project management. SC&A's ability to manage, control, and ensure the performance of subcontractors is demonstrated by the very substantial experience that SC&A has amassed in utilizing subcontractors in the performance of work for the Federal government over the past 22 years. In the case of task orders with substantial subcontractor participation, SC&A exercises rigorous oversight of subcontractor work, closely monitoring costs and deliverables. Subcontractors are held to tight adherence with deliverable schedules. SC&A Case Managers will participate in all subcontractor meetings with NIOSH and the Advisory Board, and directions will come directly from SC&A.

SC&A will have a subcontract with each team subcontractor. The subcontracts will contain our standard terms and conditions and any particular clauses required by our contract with CDC. SC&A's Contracts Manager, in consultation with the Program Manager, will be responsible for ensuring that the subcontractors follow contract requirements.

The management of the subcontractors is the responsibility of SC&A's Project Manager, Dr. . He will regularly interface with the Subcontractor Project Managers. The Subcontractor Project Manager serves several roles. He or she will be responsible for the subcontractor's performance in completing work assignments under the contract; in this capacity, the Subcontractor Project Manager will serve as the "point person" for the subcontractor company. The Subcontractor Project Manager will also serve as a technical specialist on work assignments. and will serve as the Subcontractor Project Managers for and , respectively. , President of Inc., our 8(a), woman-owned business subcontractor, will serve as the Subcontractor Project Manager for

The previous discussion applies to subcontractors who are already on the SC&A team. However, for work requiring a specialty niche contractor, SC&A would search for the capabilities required and solicit proposals from qualified firms. A sole-source award will be made if the requirement is not excessively large and it is clear that, by virtue of location and capabilities, a particular offeror is eminently qualified to perform the work. In this case, a cost proposal will be solicited from the offeror and a subcontract negotiated and submitted to the Contracting Officer for approval (if a level-of-effort (LOE) subcontract is negotiated—consent is not required from the Contracting Officer if the subcontract is under \$25,000 and is fixed price). If a sole-source award is not appropriate, a competition of a few (probably three) firms will be held over a short time period. Proposals would be evaluated and a subcontract awarded to the firm that offers the most advantageous proposal to the Government, considering both technical and cost factors. If consent is required, the subcontract would be submitted to the NIOSH Contracting Officer prior to its execution by SC&A.

The management of a large contingent of subcontractors is not a new venture for SC&A. We have successfully managed as many as 68 subcontractors on a previous LOE contract for EPA. Where required, we obtained consent from the Contracting Officer prior to placement, and the subcontracted work was performed within the labor hour and cost limitations of the approved subcontractors. With very few exceptions, subcontractor costs on individual work assignments were maintained within the limitations of their original cost estimates.

### 2.4.3 Problem Resolution

It is SC&A standard operating procedure to prepare a work plan for every task order received from its clients. Potential problems or schedule slippages arising from each task order assigned by NIOSH will therefore be identified during the development of the technical and cost proposal in response to a TORP. Thus, if anticipated problems should arise during the performance of a Task Order, potential strategies will be available to deal with them. Of course, it is difficult to predict the precise nature of a future problem. However, the intimate involvement of the Project Manager, Deputy Project Manager, and Case Managers in all aspects of the work, from early development of the work plan through completion of each case and Task Order, offers the Advisory Board the confidence that problem areas will be identified as early as possible and resolved promptly.

In addition, this proposal envisions a strong commitment on the part of the Project Manager, the Deputy Project Manager, and the Case Managers, who will meet frequently with the Project Officer and Advisory Board members. SC&A believes in keeping its clients informed of any potential problems and implementing safeguards early in the process. When a schedule delay is unavoidable, the SC&A Project Manager will work with the Project Officer and Advisory Board to minimize the impact of any delay on the overall project goals.

### *Changes in Program Direction*

The proposed Project Manager has considerable experience with changes in program direction. Recently, Dr. [redacted] demonstrated the capability to address change in an SC&A contract with NRC (NRC-04-01-049, Technical Basis Information for Clearance of Materials and Equipment; NRC Project Officer Dr. Carl Feldman). The project scope and schedule of this contract were modified on two separate occasions to accommodate the changing demands of the project. SC&A's ability to recognize changing client needs, access appropriate and highly specialized staff through Associate arrangements, and select subcontractors who supplement SC&A skills renders us more than able to respond to changes in program direction both quickly and efficiently. Should a concern arise that a change may be needed in program direction, the Case Manager will immediately inform the Project Manager, Deputy Project Manager, and the Project Officer and/or Advisory Board representative. The issue will be discussed, and SC&A will either continue work while the issue is being resolved or stop work until the issue is resolved.

### *Responding to Increased Workloads*

Because of the depth of SC&A's personnel resources in a broad range of disciplines, increased and widely fluctuating work loads will not pose a problem. There is a sufficiently large staff to fill the case load requirements as estimated in the solicitation. The total number of available and qualified personnel employed by SC&A provides a large margin of comfort. SC&A's previous contracts with the Government demonstrate the Company's ability to absorb increased and widely fluctuating work loads.

#### 2.4.4 Flexibility of the SC&A Organization

SC&A was initiated as, and has continued to evolve into, one of the most flexible and responsive organizations in the professional services market. SC&A's staffing structure of full-time and part-time employees, as well as Associates, provides us with a resource pool that can be easily expanded or contracted depending on the volume of work or the schedule required to complete a project. The Company's simple corporate management structure ensures that problem solving is tackled expediently and efficiently, as described above. SC&A's flexibility and responsiveness is also evidenced in our ability to provide quick turnaround support.

During its 22-year history, SC&A has provided services to the Government through more than 250 contracts, many of which were accomplished through task order type contracts. Many of these task orders required quick turnaround response, which in some cases translated into 24-hour turnaround. The majority of these tasks have involved activities similar to those required under the SOW (i.e., dose assessments). In all cases, SC&A was able to respond to these quick turnaround requests simply and efficiently, due to the Company's resource pool consisting of SC&A staff and Associates and the resources of subcontractors. For this effort, the SC&A team is proposing a fixed staff of 35 individuals who will be formulated into review teams assigned to each case and will work under the direction of a Case Manager. Staff can be mobilized effortlessly and will be available within hours of a request for a quick turnaround task.

As a minority owner and member of the Board of Directors of SC&A, the proposed Project Manager, Dr. \_\_\_\_\_, has the authority to obtain resources as needed. Upon receipt of a request for quick turnaround support, Dr. \_\_\_\_\_ will immediately contact the Project Officer and/or Advisory Board representative to define or clarify the objectives of the task and provide a preliminary estimate of the resources necessary to complete the work in the specified time frame. He will then work with the Deputy Project Manager, Case Managers, and other team members to identify the existing workload and to assess the need for extra staff or equipment. Should extra resources be necessary, Dr. \_\_\_\_\_ will arrange for their timely provision. These resources will then be made available to the Case Manager (or Task Manager, if the activity does not involve a case) to complete the activity. Dr. \_\_\_\_\_ will monitor the activity throughout its performance and will adjust resources as necessary to ensure that the schedule is met. It is not uncommon for SC&A to handle more than one quick turnaround project at a time by using these procedures.

## 2.5 Quality Control Procedures

SC&A strictly adheres to a time-tested corporate Quality Management Plan (QMP) and implementing procedures. For the past three years, SC&A has been performing work on several NRC contracts under project-specific Quality Assurance Project Plans (QAPPs) approved by the Office of Nuclear Regulatory Research of the NRC.<sup>2</sup>

SC&A's corporate QMP mandates the use of the American National Standard Institute's ANSI/ASQC E4-1994, "Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs," which is a national consensus document that sets forth mandatory specifications and nonmandatory guidelines for the planning, implementation, and assessment of a quality system for programs involving environmental data collection and environmental technology. SC&A's QMP, developed in October 1997, specifies the requirements, responsibilities, and guidance pertaining to total quality management and is intended, to the extent practical, to adopt verbatim the language of ANSI/ASQC E4-1994. Therefore, SC&A considers the QMP to be an over-arching blueprint for conducting quality work. A copy of this QMP is available for review upon request.

As discussed in detail in the example tasks, and provided in Section 3 and Appendix C of this proposal, SC&A has prepared a detailed set of SOPs and checklists for the basic and advanced review of cases and SEC petitions. The procedures are tied to the Office of Compensation Analysis and Support (OCAS) guidelines for dose reconstruction for external and internal exposures, and the requirements set forth in 42 CFR Parts 82 and 83. These procedures constitute SC&A's draft project-specific QAPP. Specifically, the QAPP and associated SOPs document that following has been done:

- The task's technical and quality objectives are identified and agreed upon.
- Activities affecting the achievement of the quality objectives are identified and, via SOPs, conducted in a controlled manner.
- SOPs implementing quality requirements are identified and in place prior to the start of work.
- The intended measurements or data acquisition methods are appropriate for achieving task objectives; the assessment procedures are sufficient for confirming that data of the type and quality needed and expected are obtained; and that any limitations on the use of the data can be identified and documented.

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<sup>2</sup> NRC-04-01-049, Technical Basis Information for Clearance of Materials and Equipment, NRC Project Officer Dr. Carl Feldman and NRC-04-01-065, Technical Assistance in Finalizing NUREG-1640, NRC Project Officer Dr. Robert Meck.

## 2.6 Conflict of Interest Management

SC&A is fully aware of the conflict of interest (COI) issues on this contract. SC&A can state unequivocally that we comply with the Board's OCI prerequisites, which are listed in Section M.1 of the solicitation, as follows:

- **SC&A, its team members, and the proposed key personnel are not currently performing any work for NIOSH, ORAU, or ORAU's primary teaming partners, and if SC&A is a successful bidder, will not perform any such work during the period of performance of the contract.**
- **If SC&A is a successful bidder on this contract, neither SC&A, its teaming partners, nor any of the key personnel on the contract will bid on any work for NIOSH, ORAU, or ORAU's teaming partners.**
- **None of the proposed personnel have served as an expert witness (including non testifying witness) at any time in the past in any litigation defending worker compensation or other radiation-related claims on behalf of DOE, a DOE contractor, an Atomic Weapons Employer, or an AWE contractor.**
- **None of the proposed personnel are currently working on the NIOSH Dose Reconstruction Contract (Contract Number 200-2002-00593).**

Since its founding in 1981, SC&A has been a prime contractor to many of the Federal regulatory agencies concerned with health and safety relating to occupational and environmental radiation. These include EPA, NRC, the Defense Nuclear Facility Safety Board (DNFSB), and CDC. The OCI requirements imposed on us for the work for these regulatory agencies have been stringent. For example, all seven of our large mission contracts with the EPA Office of Air and Radiation, as well as our prime contract with the DNFSB, restricted our work for DOE and its contractors. Moreover, SC&A has had 13 prime contracts with NRC, all of which have restricted our work for NRC licensees, including Atomic Weapons Employers (AWEs). Many of our Federal contracts have required formal OCI plans addressing search criteria for potential conflict of interest: OCI avoidance, mitigation, and neutralization; OCI documentation; OCI training; subcontractor OCI; and employee conflict of interest.

Section 2.6.1 contains a discussion of the work history of SC&A and its team members, and additionally describes the background of each key individual on the project and includes a disclosure statement with respect to potential conflicts of interest relating to work for DOE, DOE contractors, AWEs, and AWE contractors. Section 2.6.2 discusses SC&A's OCI plan. COI forms were completed and signed by each member of the project team and are provided in Appendix B. The forms provide a description of the work, the time period in which the work was performed, and an identification of the organization for whom the work was performed.

The draft OCI plan presented in Exhibit 2-2 is preliminary in the sense that SC&A will work with the Advisory Board to develop a systematic, comprehensive plan to ensure that neither

SC&A, its team members, nor the individuals working on the contract become involved in any COI situations as they might relate to the proposed work. Thus, our plan will be finalized after it is approved by the Advisory Board.

The Administrator of our OCI Plan will be Ms. Laurie Loomis. Ms. Loomis is Certified as a Professional Contracts Manager and a Federal Contracts Manager by the National Contract Management Association, and has 12 years of experience in government contracting. She is Manager of SC&A's Administrative Services Division and reports to Dr. Sanford Cohen, the President of SC&A. As an employee-owner of SC&A and the Contracts Manager, Ms. Loomis will have a profound interest in ensuring the absence of conflict of interest. She is also the most knowledgeable individual at SC&A about the extent and detail of each of our contracts. She will work with the Advisory Board in finalizing SC&A's OCI plan and keeping it current, and will manage the plan internally. She will ensure that all team members and individuals working on the project are trained in the provisions of the plan and comply with its procedures. She will be responsible for obtaining and filing evaluator certifications, and will work with Dr. Cohen in identifying any potential conflicts of interest and reporting them immediately to the Advisory Board.

It is important to point out that SC&A is a relatively small, tightly managed firm with a history of strict compliance with COI constraints quite similar to those envisioned under this proposed work for the Advisory Board. Our top management is acutely aware of these constraints, and will work closely with the Board to ensure that conflicts of interest are avoided. SC&A will also be mindful that team members who are performing extensive nondosimetry work for DOE or DOE contractors may pose a perception concern for claimants. Such tasks will be judged on a case-by-case basis to determine whether the nature of the work would lead to such perceptions.

### 2.6.1 Work History

By virtue of our work for Federal regulatory agencies described in Section 5, any work for DOE and DOE contractors has been severely curtailed. SC&A has never held a DOE prime contract. However, we do perform laboratory analysis services for DOE offices and contractors in our Southeastern Environmental Laboratory located in Montgomery, AL. Samples potentially containing very low levels of environmental contamination are shipped to the laboratory for analysis of radionuclide content. Our longest running contract for these services is with the Kaiser Hill Company (KH 020512), who is responsible for the remediation of the Rocky Flats Plant. We have provided these services for approximately six years. For approximately two years, we have held similar contracts with Bechtel Nevada Corporation (Subcontract No. 30025), who operates the Nevada Test Site, and Westinghouse Savannah River Company (AC17824N and AC23323N), operator of the Savannah River Site (SRS). Additionally, in January, 2003, SC&A's Southeastern Environmental Laboratory received an order from DOE's Golden Field Office to analyze 12 samples. **None of this work is concerned with radiation dosimetry, nor is it related in any way to any of the elements of the scope of work of the subject solicitation. Therefore, our laboratory work for DOE contractors is not in conflict with the proposed work for the Advisory Board.**

SC&A has only one nonlaboratory project with a DOE contractor. This contract is with the S.M. Stoller Corporation (SMS-SCA1002), who is a subcontractor to Portage Environmental Inc., who in turn is a prime contractor to the DOE Carlsbad Area Office. The work, which is to conduct field quality assurance audits of the nondestructive assay of transuranic waste prior to its shipment to the Waste Isolation Pilot Plant (WIPP), involves only one SC&A individual. The work has been ongoing for approximately two and one-half years (prior to this year under subcontract to Portage Environmental Inc.). **This work is not concerned with radiation dosimetry, nor is it related in any way to any of the elements of the scope of work of the subject solicitation. Therefore, it is not in conflict with the proposed work for the Advisory Board.**

SC&A has performed some work for DOE contractors in the past, and for completeness, the following describes all of this work performed over the past 10 years:

- In 2001, under subcontract with Argonne National Laboratory, SC&A assisted in the evaluation of a radiation monitoring system for the transborder detection of radioactive materials (under a DOE prime contract).
- In 2000, under subcontract with CH2M HILL, SC&A performed a statistical analysis of contamination around the Hanford Tanks.
- In 1999 and 2000, under subcontract with Walcoff, Inc., SC&A evaluated the environmental impact of nuclear power plant operation.
- In 1999, SC&A received a small subcontract with Lockheed Martin Idaho Technologies Company to *reimburse us for allowing them the use of a low-signature cart that we had designed for nonintrusive UXO data collection, and to provide technical assistance related to the use of the cart.*
- From 1995 through 1998, under subcontract with the Consortium for Risk Evaluation and Stakeholder Participation (a university grant), SC&A evaluated methods for risk assessment applicable to DOE sites.
- In 1997, under subcontract with Raytheon Engineers and Constructors, SC&A performed environmental analysis support to the West Valley Demonstration Project.
- In 1996, under subcontract with Brookhaven National Laboratory, SC&A evaluated decision-support software (EPA prime contract).
- From 1995 to 1997, under a subcontract with the Environmental Evaluation Group (EEG), SC&A reviewed certain safety features of the WIPP. Although EEG receives its funding from the DOE, it is an independent watchdog group.

- In 1995, under subcontract with SAIC, SC&A evaluated the potential of treatment technology for soils at FUSRAP sites.
- In 1995, under subcontract with Brookhaven National Laboratory, SC&A developed an Arctic Information System that applied to Siberian Russia (under an EPA prime contract).
- From 1992 to 1994, under subcontract with Analytical Services Inc., SC&A reviewed environmental impact statements for the DOE Office of NEPA Compliance.
- In 1993, under subcontract with Battelle Pacific Northwest Laboratories, SC&A performed tasks related to environmental management support.
- In 1993, under subcontract with Roy F. Weston Corporation, SC&A provided environmental consulting assistance in connection with the Yucca Mountain high-level nuclear waste repository.

**Since none of this work is concerned with radiation dosimetry nor with any of the elements of the scope of work of the subject solicitation, it does not constitute a conflict with the proposed work for the Advisory Board. Moreover, only one small project (for Argonne National Laboratory) was performed within the last two years.**

SC&A has also searched its records to identify any work performed for AWEs and AWE contractors,<sup>3</sup> searching its contracts' records against the list of AWEs given in the *Federal Register* on December 27, 2002. SC&A identified the following AWEs for which work was performed over the past 10 years:

- SC&A is currently providing, and has provided on several occasions, environmental support to General Electric Corporation, none of which is related to atomic energy or radioactivity.
- In 1997, under subcontract with Raytheon Engineers and Constructors, SC&A performed environmental analysis support to the West Valley Demonstration Project (this was also listed above under work performed for DOE contractors).

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<sup>3</sup> Please note that SC&A used its best efforts to identify AWE contractors for which it has performed work. In particular, SC&A believes that it has identified all instances of its work over the past 10 years performed for AWEs using contractual vehicles with AWE contractors. However, SC&A does not certify that it has identified all of its work for AWE contractors, since the list of all AWE contractors is not available, to the best of SC&A's knowledge. Moreover, SC&A does not believe that the Advisory Board is necessarily interested in work for AWE contractors unless the work is related to AWEs.

- From 1994 through 1996, under contract with the Continental Minerals Processing Division of Alcoa, SC&A performed a radiological characterization of zirconia sands.

**Since none of this work is concerned with radiation dosimetry nor with any of the elements of the scope of work of the subject solicitation, it does not constitute a conflict with the proposed work for the Advisory Board.**

**Finally, SC&A has never performed work under contract with NIOSH, ORAU, or the ORAU primary teaming partners (performing under Contract #200-2002-00593).**

#### 2.6.1.1 Subcontractor Work History

During preparation of this proposal, subcontractors and their personnel were asked to review their work histories with respect to their work for DOE, DOE contractors, AWEs, AWE contractors, NIOSH, Oak Ridge Associated Universities (ORAU), and ORAU primary teaming partners. They also certified that they will not bid or perform any work for NIOSH, ORAU, or any of ORAU's primary teaming partners while performing work under this contract. Their signed certifications are provided in Appendix B; summaries of this information are provided below.

, Inc.

, Inc., being a relatively new small business (incorporated in 2001), has had no contracts with Federal agencies including DOE and its operating contractors. It has one active contract, with Johns Hopkins University, in support of biodefense activities at the Center for Civilian Biodefense Strategies. 's first government contract proposal will be as a subcontractor member of the SC&A bid team.

, Inc., has never performed any work for NIOSH, ORAU, or a company teamed with ORAU on NIOSH Contract No. 200-2002-00593, including through subcontracts.

, Inc. has never held contracts to provide expert witnesses (including non-testifying witness) in any litigation defending worker compensation or other radiation-related claims on behalf of DOE, a DOE contractor, an AWE, or an AWE contractor.

, Inc. has never performed work for DOE, a DOE contractor, an AWE, or an AWE contractor, including through subcontracts.

, Inc. has never worked at a DOE or AWE site under contract to DOE, a DOE contractor, an AWE, or an AWE contractor, including through subcontracts.

, Inc. has no current or past history of contracts or financial relationships that would result in any actual or perceived conflict of interest under this contract.

, does business as  
which is identified earlier in this proposal as . Neither nor has performed any work for NIOSH, ORAU, or a company teamed with ORAU on NIOSH Contract No. 200-2002-00593, including through subcontracts.

Neither nor has provided staff to serve as an expert witness (including non-testifying witness) in any litigation defending worker compensation or other radiation-related claims on behalf of DOE, a DOE contractor, an AWE, or an AWE contractor.

Neither nor holds any DOE prime contracts at this time. However, has provided radiation safety-related training services for DOE facilities and contractors. These services are listed below:

- presented a 5-day training course entitled "Practical Tools for Response to Nuclear Terrorism," from May 19-23, 2003, under contract to EG&G Technical Services. The content of the course included radiation detection instruments and their use, and the understanding of how to respond to a nuclear terrorism event. The course was presented at the DOE Emergency Operation Training Academy in Albuquerque, NM, and most of the attendees were members of DOE's emergency response program.
- presented a 5-day training class entitled "Advanced Concepts in Health Physics," from April 16-20, 2001, under contract to Westinghouse Savannah River. The course covered radioactivity, regulations, instruments, internal and external dosimetry, statistics, waste, and transportation. The purpose of the course was to prepare participants for successful completion of professional certification examinations.
- provided a 1-day training course entitled "Radiation Safety Seminar" for the West Valley Nuclear Services Company, Inc., on October 22, 1997. The course covered basic principles of radioactivity, radioactive waste classification, shipping regulations, and public health and safety considerations. It did not cover radiation dosimetry. The course was conducted as part of a cooperative agreement between DOE and the Seneca Nation of Indians to increase understanding of environmental and human health, and to protect the cultural history of the Seneca community.

**This work was not related to any of the elements of the scope of work of the subject solicitation. Therefore, it is not in conflict with the proposed work for the Advisory Board.**

Neither has a current or past history of contracts or financial relationships that would result in any actual or perceived conflict of interest under this contract.

, Inc. will participate in this contract as a small, disadvantaged business subcontractor. has never performed any work for NIOSH, ORAU, or a company teamed with ORAU on NIOSH Contract No. 200-2002-00593, including through subcontracts.

, Inc. has never provided staff to serve as an expert witness (including non-testifying witness) in any litigation defending worker compensation or other radiation-related claims on behalf of DOE, a DOE contractor, an AWE, or an AWE contractor.

, Inc. does not hold any DOE prime contracts at this time. However, and its principal, , have provided radiation-related training and other services for DOE facilities and contractors. These services are listed below:

- provided a trainer for the Rocky Flats Environmental Technology Site (RFETS) Plutonium Stabilization and Packaging System project. This project, performed in 2000 under subcontract to BNFL, Inc., and Safe Sites of Colorado, did not involve any radiation dosimetry.
- served as an environmental scientist for Jacobs Engineering Group at the Weldon Spring Site in Missouri between 1986 and 1988. This work did not involve any radiation dosimetry.
- served as the Health and Safety Manager for Bendix Field Engineering at DOE's Grand Junction facility in Colorado in 1983 and 1984. This job included radiation dosimetry for personnel.

In addition, was an employee of Rockwell International at the RFETS between 1978 and 1980.

**This work was not related to any of the elements of the scope of work of the subject solicitation. Therefore, it is not in conflict with the proposed work for the Advisory Board.**

, Inc. has no current or past history of contracts or financial relationships that would result in any actual or perceived conflict of interest under this contract.

#### 2.6.1.2 Key Personnel Work History

Key personnel were also asked to review their work histories with respect to their work for DOE, DOE contractors, AWEs, AWE contractors, NIOSH, ORAU, and ORAU primary teaming partners. They also certified that they will not bid or perform any work for NIOSH, ORAU, or any of ORAU's primary teaming partners while performing work under this contract. Their signed certifications are provided in Appendix B; summaries of this information are provided below.

