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PROGRAM SUPPORT BUREAU
91 DEC 30 PM 2:18

December 30, 1991

New Mexico Environment Department
Program Support Bureau
Room S4300, Cliff Hawley, Chief
P.O. Box 26110
1190 St. Francis Drive
Santa Fe, NM 87502-6110

Dear Mr. Hawley:

New Mexico Environment Department Request for Proposal for RCRA Permit Application and Other Technical Documents Review

ERC Environmental and Energy Services, Co., Inc. (ERCE) is pleased to present our proposal to provide support to the New Mexico Environment Department for expertise in the review of the RCRA permit application and other technical documents submitted to the State of New Mexico for the DOE Waste Isolation Pilot Plant. We are confident that we have unique capabilities required to complete the projects as defined in the subject Request for Proposal. We are confident that our technical abilities will provide the Environment Department with a very cost-efficient means of processing the permit application and other technical documents relating to WIPP.

We have submitted an original and five (5) copies of the proposal as required in the RFP. We appreciate the opportunity to present our capabilities and look forward to being a part of the success of the New Mexico Environment Department.

If you have any questions, please call me at the above number.

Regards,

David M. Ericson, Jr.
Manager
Safety & Risk Assessment

911205



Figure 2.1
 Personnel Proposed for RCRA Part B Application Review
 and Review of Other Related Technical Documents

Individual	Degree(s)	Yrs Exp	Prof Reg	DOE Q	Air Soil Water Modeling	Civil Eng	Chem Eng	Comp Review	Elec Eng	Env Science	Health Physics	Hydrogeology	Mech Eng	QA/QC	Risk Assess	Security & Emerg Plan	Waste Mgt
Susan Coker	MS, Agricultural Economics, Western Kentucky University BS, Agriculture/Business Administration, Western Kentucky University	6		X				X		X					X		X
David Ericson	PhD, Nuclear Engineering, University of Michigan MS, AF Institution of Technology BS, Chemical Engineering, Pennsylvania State University	33		X	X		X	X			X		X	X	X	X	X
Kenneth Fleming	MS, Nuclear Environment Systems Engineering, Clemson BS, Microbiology, Clemson	10	CHP	X	X			X		X	X				X		X
Dwight Flynn	MS, Wildlife/Fisheries Science, University of Tennessee BS, Forestry, University of Tennessee	22		X				X		X		X		X			X
Brian Fredrick	BS, Civil Engineering, Virginia Tech	12	PE (6 states)	pend.	X	X		X									X
Denise Gallegos	BS, Biology (Chemistry), New Mexico Highlands University	6	CHM							X							X
John Hockert	PhD, Nuclear Physics, University of NY at Stony Brook MA, Physics, State University of New York BS, Physics (cum laude), California Institute of Technology	22		X	X						X			X	X	X	
Thomas Kitchings	MS, Ecology, New Mexico Highlands University BA, Biology, Centre College	25		X	X			X		X	X			X	X		X
John Lague	MS, Meteorology, Massachusetts Institute of Technology BS, Physical Sciences, University of California, Davis	21			X			X			X		X	X			X
Carl Lipp	BS, Geology, Colorado College	3	PE (2 states)	X	X			X				X					X
Carlos Naranjo	BS, Mining Engineering, University of Arizona	16	PE (2 states)					X		X							X
Michael Norris	MS, Electrical Engineering (pending), New Mexico State University BS, Electronic Engineering, Chapman College	16		pend.	X				X		X			X	X		
Dennis Peek	MA, Political Science/Environmental Policy, University of Georgia BS, Mechanical Engineering, Georgia Institute of Technology	4	EIT	pend.						X			X		X		X
Richard Stephans	MS, Mechanical Engineering, New Mexico State University BS, Chemical Engineering, Purdue University	25	PE; QA Auditor	X			X	X		X	X		X	X	X	X	X
John Teel	MBA, University of New Mexico BS, Electrical Engineering, New Mexico State University BS, Chemical Engineering, New Mexico State University	8	EIT	X			X	X	X	X					X		X
Stephan Wright	BS, Nuclear Engineering (pending), University of New Mexico	2			X			X			X						

WIPP Library



**ERC
Environmental
and Energy
Services Co.**

**RCRA Part B Permit Application
and Other Technical Documents Review**

PROPOSAL

**Submitted by:
ERC Environmental and Energy Services Co. (ERCE)**

**Submitted to:
New Mexico Environment Department
Program Support Bureau
Santa Fe, New Mexico**

December 30, 1991

Albuquerque, NM

ERCE Proposal 91-EP-0307

**RCRA Part B Permit Application
and Other Technical Documents Review**

PROPOSAL

**Submitted by:
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**Submitted to:
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Program Support Bureau
Santa Fe, New Mexico**

December 30, 1991

This proposal includes data that shall not be disclosed outside The Government of The State of New Mexico and shall not be duplicated, used, or disclosed - in whole or in part - for any other purpose other than to evaluate this proposal. If, however, a contract is awarded to this offeror as a result of - or in connection with - the submission of this data, The State of New Mexico shall have the right to duplicate, use or disclose the data to the extent provided in the resulting contract. This restriction does not limit The State of New Mexico's rights to use information contained in this data if it is obtained from another source without restrictions.

Albuquerque, NM

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1.0 INTRODUCTION

ERC Environmental and Energy Services Co. (ERCE) is pleased to provide this proposal to support the New Mexico Environment Department reviews of Resource Conservation and Recovery Act (RCRA) Part B permit applications and other technical documents submitted to the State of New Mexico for the Department of Energy Waste Isolation Pilot Plant (WIPP). [Note: After January 1, 1992, ERCE will be known as Ogden Environmental and Energy Services.] ERCE proposes to provide appropriate technical staff to support completeness determinations, technical evaluations (including evaluation of engineering components and applicant responses), decision analysis, and other activities related to the WIPP applications. ERCE provides the Environment Department with access to a large group of highly qualified, experienced professionals to support work in each of these areas. Our corporate commitment to high-quality, our history of responsive support to our clients in government and industry, our facilities in Albuquerque, and our senior project management strength ensure that assigned tasks are performed efficiently and professionally. Ms. Denise Gallegos, Staff Consultant (Environmental), will serve as Project Manager for this effort. Technical Review will be provided by Mr. J. Thomas Kitchings, Senior Project Manager. Management oversight will be provided by Dr. David M. Ericson, Jr., Manager of the Albuquerque Office.

Following a brief introduction to our firm, this section of the proposal summarizes some of the key points that demonstrate our unique qualifications to provide the required support and provides an overview of the organization of this proposal.

1.1 ERCE Skills and Services

As a responsible environmental and energy services firm, ERCE provides a comprehensive range of environmental science, engineering, and health and safety services to industrial and commercial companies, utilities, and government agencies. The firm was recently selected by *Forbes Magazine* as one of the "200 Best Small Companies in America." The *Engineering News-Record* in 1990 ranked ERCE as number 73 in its list of the top 500 American design firms. ERCE employs over 1000 professional personnel and had 1990 revenues in excess of \$80 million. In addition to our Albuquerque office, ERCE maintains over 25 offices nationwide. In the last 20 years, ERCE and its predecessor companies have conducted thousands of engineering, waste management, environmental, safety, health, and risk assessment studies for over 1000 clients.

ERCE's professional staff includes personnel with expertise in a wide variety of scientific, engineering, and planning disciplines and specialties, including the following:

Environmental Engineering	Safeguards and Security
Public Health	Air Quality
Industrial Hygiene	Risk Assessment
Health Physics	Toxicology
Safety Analysis	Nuclear Engineering
Civil Engineering	Chemistry
Chemical and Process Engineering	Ecology
Hydrology	Geology
Geotechnical Engineering	Environmental Inspections
Training	Radiation Protection
Emergency Planning	Waste Management

ERCE's technical services include hazardous, radiological, and mixed waste contamination assessment, analysis, and characterization; environmental restoration investigation and design; National Environmental Policy Act (NEPA) document preparation; public health and safety studies; industrial hygiene; health physics; radiation protection; air quality and air toxics; and regulatory compliance. ERCE's engineering services include environmental, civil, and geotechnical engineering; quality assurance; nuclear systems design and evaluation; nuclear safety and risk assessment; safeguards and security planning and analysis; waste minimization; and hazardous, mixed, and radioactive waste management.

1.2 Key Points of Response to the Request for Proposal (RFP)

Insurance Coverage

As a professional services company, ERCE maintains both general liability and professional services insurance. Certifications of this coverage are provided in Section 5.0 of the cost section of this proposal. (The coverage amount includes the increased requirement as of July 1992.)

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Personnel Experience and Training

The ERCE staff has both experience and training in the broad range of disciplines applicable to the environmental and energy fields. As noted above, and as outlined in more detail in Section 2.0 and Appendix A, several of our staff members hold advanced degrees and have many years of experience. Figure 2.1 provides an overview of the skills and experience of those individuals selected to provide primary support to this program.

Project Understanding and Approach

ERCE's clients have included both the public (at Federal, State, and local levels) and private sectors.

ERCE has assisted industrial clients in the preparation and implementation of permitting strategies for industrial development projects. The services we provide include comparative site evaluation studies; assessment of hazard control technology requirements; preparation of development plans, engineering descriptions, and permit applications; regulatory/policy analysis; and presentation of expert testimony. ERCE has also assisted municipal and county governments in the review and evaluation of such permits for a wide range of facilities, such as landfills. Based on this experience, ERCE is thoroughly familiar with the requirements of Federal and state regulatory guidance and with how these requirements are applied to permit applications. The ERCE approach to the work requirement is outlined in Section 3.0 and our prior experience is described in Section 4.0.

Prior Work in RCRA Part B Permit Applications and Technical Reviews

Descriptions of ERCE's recent work in the review of RCRA Part B permit applications and the review of other technical documents is provided in Section 4.0. Most significantly, ERCE developed, previewed, and submitted 17 RCRA Part B permits for the Army Corps of Engineers and three such permits for the Oak Ridge National Laboratory.

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Contract Costs

ERCE has applied its standard costing practices in the preparation of this proposal using rates that are currently accepted by the Federal agencies (e.g., DOE). The total proposed price, on a "Time and Materials" basis, is less than \$200,000 per year. The details of the costs are provided in Section 5.0.

Local Office

The ERCE Albuquerque Office of ERCE was opened in September 1983 with a staff of three and has since grown to become a multi-disciplinary staff of 21. The company is committed to growth and to maintaining its New Mexico presence by providing significant and long-term services to the State of New Mexico, Los Alamos National Laboratory, and Sandia National Laboratories. The Albuquerque Office also serves the DOE K-25 Plant and the DOE Pantex Plant. ERCE, through its predecessor companies, has been in business since the mid-1970s. The Albuquerque Office (i.e., available equipment, materials, and services offered) is discussed in more detail in Appendix B.

Contract References

Recent corporate experience in RCRA permit activities and other technical review activities are documented in Section 4.0.

Subcontractors

ERCE does not propose to use subcontractors in this effort at this time. All tasks are planned to be performed by ERCE staff members.

Conflict of Interest/Compliance with Applicable Laws

ERCE does not have a Conflict of Interest related to the performance of this work. We have not been involved with the preparation of any permits for WIPP-related activities. Also, because of

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our extensive contractual efforts for Federal government agencies, we are an Equal Opportunity Employer. The necessary certificates are provided in Section 5.0.

Standard Operating Procedures

ERCE does not maintain an overall procedures manual. Rather, corporate procedures for recurring tasks are contained in the respective manuals for the work area. For example, the ERCE Health and Safety Program Manual has, along with sections on Regulatory Requirements, Program Management, Guidelines, Communications, Analysis, Discipline, and Training, a section containing a half-dozen ERCE-specific health and safety procedures. ERCE's multiple manuals are available for examination and review in the Albuquerque Office.

1.3 Understanding WIPP

ERCE personnel have served as members of a nuclear safety and oversight committee during evaluations of the DOE WIPP facility. We also have considerable experience with other DOE-owned, contractor-operated sites. As noted in Section 4.0, ERCE has recent and ongoing work directly related to the assurance of safety to the public, the site personnel, and to the environment at several DOE facilities.

ERCE personnel are committed to supporting the New Mexico Environmental Department and understand the mission of WIPP. ERCE is aware that one prominent area of technical concern at WIPP is the potential for gas to be generated during biological and radioactive decay and metallic corrosion. Once WIPP operations are complete (i.e., after approximately 25 years), the underground areas will be backfilled and sealed. Predicting the effects of the decay process in a closed environment for 10,000 years presents a great technical challenge. The tests, the data received, and the calculations leading to those predictions must be closely scrutinized and evaluated.

ERCE is also familiar with Public Law 96-164, the "Department of Energy Authorization Act of 1980," which describes the provision for consultation and cooperation between the DOE and the State of New Mexico in paragraph (b), section 213. This section requires that the DOE and

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the State of New Mexico cooperate to resolve any concerns the state may have about public health and safety. While there are several standing committees at the state and Federal levels, the day-to-day interaction with WIPP regarding technical and regulatory issues is conducted by the state Environment Department.

Within the Environment Department, the Environmental Improvement Division (EID) regulates WIPP activities under the New Mexico Hazardous Waste Act, the New Mexico Water Quality Act, and the New Mexico Air Control Act. State permits for various activities, including waste generation and disposal, are issued by the EID.

In responding to the Environment Department's RFP, we reviewed such documents as the "Final Environmental Impact Statement" (October 1980), the initial 5-volume "Safety Analysis Report" (May 1986) and the "Final Safety Analysis Report" (May 1990). We are also aware of the eight parts of Volume IX of the 1980 Bechtel "Title I Design Report," which is devoted to calculations. Thus, we are aware of both the immensity of work that has gone into WIPP and the enormous responsibility the Environment Department has to protect the health and safety of the people and the environment of New Mexico.

As noted by Congressman Joe Skeen during his testimony in April, 1991, "While WIPP is being designed and built primarily for the disposal of defense-generated transuranic wastes, it will also be one of the world's premier research and development facilities to study the safe disposal of nuclear waste. WIPP will provide invaluable data needed to determine how to safely handle, transport, and dispose of defense wastes, here in the United States and around the world."

1.4 Proposal Organization

Section 1.0 provides an introduction to the proposal and addresses each of the 12 components required by the RFP.

Section 2.0 of this proposal provides detailed information on the experience and qualifications of the ERCE personnel identified to support the Environment Department. Section 3.0 describes

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the technical approach to the permit and technical document review activities, Section 4 provides contract reference contacts and project experience, and Section 5.0 contains the cost certifications.

Appendix A contains resumes for all personnel proposed to support this effort. Appendix B outlines ERCE's New Mexico (Albuquerque) facilities, including equipment, materials, and services offered.

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2.0 QUALIFICATIONS OF KEY PERSONNEL

The key personnel identified for this project have extensive experience in technical documentation review, waste management, RCRA Part B permitting, interacting with the New Mexico Environment Department, engineering data assessment, environmental and safety risk analyses, and the presentation of technical information to the public.

The broad experience of our personnel ensures that those individuals proposed will assess the requirements of the tasks assigned under this contract and perform the related technical reviews needed to successfully complete the work on time and within budgeted costs. ERCE personnel have exceptional qualifications in supporting the technical areas of air, water, and soil modeling; Civil, Chemical, Electrical, and Mechanical Engineering; Environmental Science; Health Physics; Hydrogeology; Quality Assurance/Quality Control (QA/QC); safety and risk assessment; security and emergency planning; and waste management, as well as detailed knowledge of the regulatory guidance applicable to each of these areas.

The personnel proposed, their technical credentials, and their specific qualifications are shown on Figure 2.1. The areas of expertise indicated for each of the personnel listed on the matrix also indicate the specific work that each will perform in the support of this effort. Detailed resumes are provided in Appendix A. The overall project will use the listed individuals, as required, to support the various technical review tasks.

Denise Gallegos

The proposed Project Manager for this effort is Ms. Denise Gallegos. Ms. Gallegos is a Staff Consultant (Environmental) with ERCE's Albuquerque Office and is currently managing an environmental compliance project for Santa Fe Pacific Minerals. Ms. Gallegos holds a B.S. in Biology (Chemistry Minor) from New Mexico Highlands University. Her experience includes two years as the Program Manager of the New Mexico Abandoned Mine Land Bureau, where she was responsible for managing the Bureau's \$2.6 million per year construction and administrative grants as well as the day-to-day supervision of a staff of nine professionals.

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