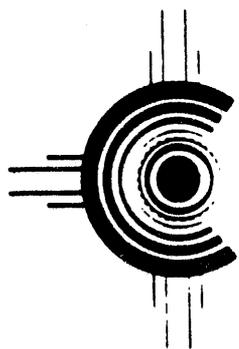


# **1993 SUMMER TRIBAL INTERNSHIP PROGRAM**



**COUNCIL OF ENERGY RESOURCE TRIBES**

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**COUNCIL OF ENERGY RESOURCES TRIBES**

**1993 SUMMER INTERNSHIP REPORT**

**NEZ PERCE TRIBE**

**Prepared by**

**JEREMY SCOTT CROW**

**Intern**

**August 1993**

**Council of Energy Resource Tribes  
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**COUNCIL OF ENERGY RESOURCE TRIBES**

**NEZ PERCE TRIBE**

**1993 SUMMER INTERNSHIP PROGRAM**

**JEREMY SCOTT CROW, INTERN**

- **PERSONAL STATEMENT**
- **RESUME**
- **REPORT**

## Jeremy Scott Crow

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My name is Jeremy Crow; I am a member of the Nez Perce Tribe. I was raised in Lapwai, Idaho. I am the oldest of the four children of Elmer Paul Crow, Jr. and Lynda Crow.

My family has always instilled in me a desire to learn, as well as respect for it. I attended Lapwai High School, a public school on the Nez Perce Reservation. It was here that I began to fulfill my need to learn. My physics teacher once told me that I had a "desire to learn for the sake of learning itself." I take this as a great compliment. This desire to learn has brought me to various places and opportunities where I could learn even more. In high school, my favorite subjects were the sciences. I loved the logical and predictable results achieved from hands-on experimentation. I was President of the Lapwai branch of the National Honor Society and also was President of my senior class. These experiences helped me hone my social skills and this, coupled with my interests in sciences, led me to choose Political Science, and later Environmental Engineering, as my major.

After graduation, I attended Brigham Young University in Provo, Utah. I studied Political Science for a year. I then went on a two-year mission to Norway for the Church of Jesus Christ of Latter-day Saints. Here I fine tuned my interpersonal skills, and also gained a respect for people of different cultures. After this mission, I returned to Brigham Young University. I changed my major to Environmental Engineering with an emphasis on botany. I have always had the desire to help as many people as possible, and I think that helping to preserve and protect the environment we all share is a good way to realize this goal.

This summer, as an intern with the Council of Energy Resource Tribes, I studied hazardous and radioactive materials management. My project report deals with a proposed program of the Nez Perce Tribe to unify resources to assist the Environmental Restoration and Waste Management Program in achieving maximum effectiveness. Since I have been here, the greatest thing I have learned is to see how technology relates to people. In school, I always focused on a purely scientific viewpoint, but overlooked its effects on humanity. I now know how to look for both sides of a complex issue.

It is my dream to use the knowledge and experiences I gain in school and in real-life training, such as this CERT internship, to bring about an increased consciousness of our shared environment and the need to protect it. Americans, as well as the world, have much to learn from the example set by American Indians. When we all learn that a fight against nature is futile and that we must work with nature to survive and prosper, this world will be in harmony just as it was when Native Americans were the sole inhabitants.

Jeremy S. Crow  
Rt. 1, Box 174  
Lapwai, ID 83540-9724  
(208) 843-2930

---

### Education

Brigham Young University, Provo, UT  
Field: Environmental Engineering major, English minor  
Emphasis: Botany  
Dates attended: 8/89-Present

Lapwai High School, Lapwai, ID  
High School Diploma, 5/89

### Work History

June 1993 to  
August 1993

**Intern, Council of Energy Resource Tribes, Denver, CO**  
Researched and wrote proposal to initiate a cooperative effort between departments of the Nez Perce Tribe relating to environmental restoration and waste management.

1987-1989

**Bookkeeper, Five Crows Construction, Lapwai, ID**  
Performed basic accounting and bookkeeping activities.

1988-1989

**Electronics Salesman, ShopKo Department Store, Lewiston, ID**  
Worked as salesman, clerk, and stockkeeper.

### Training Programs

Summers 1984-1986

Idaho Quests Summer Program for Gifted/Talented Youth, University of Idaho, Moscow, ID

June 1989 to

Headlands Summer Program for Native American students preparing August 1989 for medical careers, Mackinaw City, MI, sponsored by University of Oklahoma

June 1993

Levels I & II Facilitation Training, Institute of Cultural Affairs

### Activities

June 1988

Achieved Eagle Scout

1989

President of Senior Class of Lapwai High School, Lapwai, ID

1989

President of Lapwai branch of National Honor Society, Lapwai, ID

December 1989 to  
December 1992

Mission for the Church of Jesus Christ of Latter-day Saints, Norway

## **Miscellaneous**

- 13 years computer experience
- Speak fluent Norwegian; conversational abilities in Swedish and Danish

## **References**

Available upon request

## Introduction and Letter of Explanation

I spent this Summer traveling to various locations gathering information and experience to complete this project. I was fortunate enough to be able to use the resources at the Council of Energy Resource Tribes, especially the mentorship of Merv Tano. In addition to the resources at CERT, I was sent to Richland, Washington for a tour of the Hanford Nuclear Facility there. This experience gave me a tangible grasp on a sometimes vague topic. While at Hanford, I visited some of the nuclear waste repositories, along with several nuclear reactors. Of particular interest to me was a meeting with an environmental engineer working at Hanford. Since, that is my field of study, I had plenty of questions to ask him.

In addition to my trip to Hanford, I also visited the Nez Perce Environmental Restoration and Waste Management Program twice. This allowed me to fine-tune the topic I would work on, as well as gather information from the people working there. It was while I was here that I realized that most of the data I would use in my report would be largely what I had learned in the course of my internship. I met with the director of the program, Donna Powaukee, and she was very excited about my project. The people there have been especially helpful to me in writing this report.

I received a lot of information through my participation in the Department of Energy's Transportation External Coordination Working Group. I went to Chicago and for three days, learned about hazardous and radioactive waste transportation. Specifically, I learned about private enterprise's role in policy-making.

After these trips, and with the resources at CERT, I feel I have gained a lot of knowledge relating to environmental restoration and waste management. I do not have specific knowledge in many of the related topics, but I do believe that I have a broad overview of the field. I look forward to continuing the effort to restore our environment to a natural state and someday, although not in my lifetime, accomplish this goal.

The Nez Perce Tribe is working on formulating a stronger voice in the DOE's cleanup of Hanford. Through a cooperative effort, it is hoped that the Nez Perce Tribe will be able to realize this goal. I was asked to write a section of this project, and appreciate the opportunity. It not only has given me valuable experience, but I feel I have helped my Tribe.

This paper is designed to be a working part of a larger project which would deal with the topic of Tribal interests affected by the DOE Environmental Restoration and Waste Management program and the approaches by which those Tribal interests can be advanced. A complete outline of this project is as follows:

1. Background History of the Nez Perce Tribe's Relations with the U.S. Government

- Nature of the Federal-Tribal Relationship
- Trust Responsibility
- Statutes
- DOE Indian Policy

2. A Nez Perce View of Tribal Interests Affected by DOE Activities at Hanford

The Multifaceted Nature of the Nez Perce Tribe  
Sovereign Interests  
Treaty Interests  
Commercial Interests  
Educational Interests  
Public and Environmental Health and Safety Interests

3. A Nez Perce Framework for Private/Governmental/Tribal Interests

This paper addresses only item "2" in the outline. It is not a stand-alone product. The other sections which will complete the project will be authored by other individuals and myself. The finished product will be presented at Waste Management '94, a nuclear and hazardous waste symposium which will be held in Winter 1994 in Tucson, Arizona.

I am thankful for the opportunity I have received to work as a intern here at the Council of Energy Resource Tribes. It has given me the chance to learn about both the scientific and the social sides of the issue of environmental restoration and waste management. I would like to extend my thanks to Merv Tano, who has helped me see "the big picture," to Rhonda Mitchell and Tanya Minhas for showing me how an office works, to Alexis Baptiste at the Nez Perce office for all her help, and to the entire CERT staff, for making my stay a rewarding and enjoyable experience.

The Nez Perce Tribe currently is in a position to bring about many of their goals relating to environmental restoration and waste management of the Hanford Site in eastern Washington. This report has two purposes: one, to express the right the Nez Perce Tribe has to form an environmental policy; and two, how the environmental program within the Tribe could magnify their actions through the use of other departments' resources in a cooperative effort. This is a very progressive undertaking, but if carried out, would bring about an integrated policy that the Tribe could use to further its interests.

**A Nez Perce View of Tribal Interests Affected by DOE Activities at Hanford**

The Nez Perce Tribe is a multifaceted governmental entity which provides a variety of services for the Nez Perce people. Recently, this umbrella of services was extended to the environmental restoration and waste management field. Through a grant from the United States Department of Energy, the Nez Perce Tribe was given \$700,000 to establish an environmental restoration and waste management program. This program was established to protect various rights and privileges enjoyed by the Nez Perce people from DOE activities at Hanford. The concentration of the program is the Hanford Reservation cleanup. This former nuclear facility, in the course of fifty years, has suffered severe environmental damage. Now, the U.S. Department of Energy has instituted the Five-Year Plan strategy. This program was started in an effort to correct this damage. The Five-Year plan is an ongoing project with an anticipated completion date of 2018. The Nez Perce Tribe has an interest in this cleanup for a variety of reasons, including the risks of airborne contaminants polluting the reservation, the potential hazards of the waste being transported to and stored at Hanford, as well as the risks to salmon that swim up the Columbia River. For these reasons, the Nez Perce Tribe deemed this program necessary.

In order to ensure the success of this program, it is realized that the Nez Perce Environmental Restoration and Waste Management Program must act in accord with other organizations in and out of the Tribal bureaucracy. Working with these other programs and organizations would enable the Nez Perce environmental restoration and waste management to cover a broader range than if they were left to only their own resources. It is imperative that this sharing of faculties be instituted. The results would be either the contribution of insight into the planning process, or technical assistance to environmental restoration and waste management. The daunting job of monitoring and contributing to the cleanup of Hanford must be a unified effort.

### **The Multifaceted Nature of the Nez Perce Tribe**

The Nez Perce Tribe's duties encompass not only a governmental role, but a cultural one as well. Both are necessary for the continuation and preservation of the Nez Perce people and their culture. In a proposal to the DOE, the Nez Perce Tribe makes this declaration of its purposes:

"The Nez Perce Tribe assumes many different roles. It is a governmental entity with certain powers and authorities derived from its inherent sovereignty, from its status as the owner of land, and from delegations from the federal government. The Tribe exercises its powers and authorities to serve its members and to regulate activities occurring within the reservation. The Tribe is a trustee responsible for the protection and betterment of its members and the protection of its and their rights and privileges. And the Tribe is a party between itself and the United States government."<sup>1</sup>

This statement reinforces the fact that the Nez Perce Tribe is a sovereign and legitimate governing body, capable of making and enforcing resolutions and laws. It is also evident that the governing body feels protective of the Nez Perce people. This protection extends to its dealings with other groups and organizations. Because of both sovereign and treaty rights, the Nez Perce Tribe has various powers to legislate and enforce laws. These authorities include police powers such as law enforcement, public health and safety, and environmental protection. The most prominent of these intergovernmental relationships is with the United States federal government and its various departments.

### **Government Agencies**

The relationship between Indian Tribes and the federal government is based on a trust relationship. The relationship closely approximates a trustee/beneficiary relationship. The United States government, as trustee, is subject in some ways to legally enforceable responsibilities. Lands and resources are held by the United States government in trust for the Indian governments as well as individuals. The entire federal bureaucracy shares in this trust responsibility, although not always living up to it. This trust responsibility obligates the federal government to assist the Tribes in various issues relating to their lands, rights, and resources. The several departments within the federal government should be thought of as vast resources with the aim of protecting and furthering the rights of the Tribes. Albeit this view is idealistic,

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<sup>1</sup>A Proposal to the US Department of Energy—Support the Nez Perce Tribe's participation in and Monitoring of DOE Five-Year Plan Activities. Nez Perce Tribe. 1993. [A complete copy of this proposal is included in Appendix A of this report.]

if thought of in this manner the opportunities afforded the Tribes are staggering. It is a worthy end to bring about this attitude of government serving the interests of Tribal trusts.

At this time, the Nez Perce Tribe works with several of the departments within the federal government. The most visible of these government departments with whom the Nez Perce Environmental Restoration and Waste Management Program works is the Department of Energy. It is through this department that the funding for the program comes. It is also the monitored department; its actions and policies being observed by the Environmental Restoration and Waste Management Program at the Hanford cleanup. Also influencing the relationship between the Nez Perce Tribe and DOE is the "treaty relationship, by the DOE American Indian Policy, and by the mutual and generally convergent interests of the parties in the efficient and expeditious cleanup of the Hanford Site. The relationship contemplated... can be best described as a partnership grounded in the site-specific cleanup, but extending to all related activities of the Department."<sup>2</sup>

The Tribe sees itself not only as an advisor to DOE, but also as an untapped human resource pool of scientific and engineering personnel that will be available to assist the Department of Energy. The Tribe also envisions Tribal members as a corps specializing in environmental restoration and decontamination and decommissioning work.

### **Tribal Members/Reservation Community**

The whole purpose to an environmental restoration and waste management program is for public safety. For this reason is vitally important that the Tribal members and reservation community are neither forgotten nor shunned. The public must be educated and informed of the issues at hand and the program must be a true representation of the public's fears and desires. This education must be at all levels, beginning at the Head Start level and continuing on to adults. This education would facilitate informed choices and prompt valid concerns from the public. Another facet of this role is the examination of economic and employment opportunities created as a result of the Hanford cleanup. The Nez Perce proposal states the public/program relationship as follows:

"The Tribe views its primary responsibility toward its members as the protection of Tribal treaty rights and privileges. However expansive that responsibility may be, Tribal leadership would be remiss if that were the only focus of the proposed relationship between the Tribe and DOE. The Nez Perce Tribe also has an obligation to educate its members and the reservation community of its and DOE's activities at Hanford. This will mean reaching into the Head Start program, elementary and secondary schools, and the Tribal and reservation communities. The Tribe also must examine the employment and economic and business development opportunities presented by the cleanup at Hanford and must create programs that will enable Tribal members to realize these opportunities."<sup>3</sup>

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<sup>2</sup>*Ibid.*

<sup>3</sup>*A Proposal to the US Department of Energy—Support the Nez Perce Tribe's participation in and Monitoring of DOE Five-Year Plan Activities.* Nez Perce Tribe. 1993..

## Other Indian Tribes

The Nez Perce Tribe is involved in relations which have potential repercussions on other Indian Tribes. It is important that the Tribe adequately express pan-Tribal views when possible, as well as participate in Native American organizations to further the interests of the Nez Perce Tribe specifically, as well as Native Americans in general. Another aspect of inter-Tribal relations is the cooperation of faculties and resources to increase productivity. The Tribes are not vast enough to maintain a high degree of expertise in all areas. With cooperative efforts, this shortcoming could be remedied and bring about greater abilities and opportunities. The proposal states these realizations and goals in this way:

"The Nez Perce Tribe views its role within the Five-Year Planning context as operating on two levels. The first, and most important, is obviously the Tribe's role as advisor to the site-specific cleanup of the Hanford Site. However, the Tribe realizes that its consultation with DOE contemplated by the proposal will be viewed by both the Department and by other Tribes whose interest in the Five-Year Planning process is not as compelling, as representative of Indian Tribes in general. This is not an unrealistic concept. The fact is that the Tribe must prepare and act on these two levels. It must carry out the monitoring and analysis necessary to be a strong advocate for Tribal rights and privileges at the Hanford Site and must be able to extrapolate from the site-specific analysis the generalized concerns that are relevant to Indian Tribes across the country. The transportation issues and planning for human resource development ... fit into this category. The Nez Perce Tribe believes that it can and must operate on these two levels and that it has access to forums, e.g., the National Congress of American Indians and the Council of Energy Resource Tribes to receive input from other Tribes and to otherwise act as a credible representative of general Tribal interests related to the DOE Environmental Restoration and Waste Management Five-Year Plan."<sup>4</sup>

## Cultural Entity

Another part of the Nez Perce Tribe's purposes is the "responsibility of protecting and transmitting that culture which is uniquely Nez Perce."<sup>5</sup> The Hanford Reservation is a significant social and religious site for the Nez Perce people, and it is important that this history be taken into consideration. The Hanford Reservation was once the site of multi-Tribal gatherings. The religious ceremonies, along with religious sites on the Hanford Site make the area important to Tribal interests. Roots were also dug here, along with the harvesting of medicinal herbs. Salmon and other fish were caught along the Columbia during these gatherings. The Tribe has a duty as a cultural entity to restore at least some of these lost aspects of traditional Nez Perce life at the Hanford Site. The area may not be all that it once was, but some of its traditional uses could be restored.

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<sup>4</sup>A Proposal to the US Department of Energy—Support the Nez Perce Tribe's participation in and Monitoring of DOE Five-Year Plan Activities. Nez Perce Tribe. 1993.

<sup>5</sup>*Ibid.*

## **Sovereign Interests**

Tribal sovereignty, in its most basic definition, means the Tribe's inherent right to govern. Without this right, the actions made by Tribal councils would be worthless, having no ability to justify or enforce them. This sovereignty is a basic part of a Tribe's existence in America today.

When dealing with federal agencies or other governmental agencies, the ability to govern makes it possible for Tribes to make their own decisions that reflect their own wants rather than having an outside entity make the decisions. This right is imperative to the whole issue of environmental restoration and waste management in that a Tribe's decisions and concerns can be respected as coming from a legitimate entity.

## **Treaty Interests**

Treaty interests are those rights and privileges guaranteed the Tribe as a result of treaties entered into with the United States government. These rights include hunting and fishing rights, water rights, and land use rights. By taking advantage of the various departments governing these rights, the goal of environmental restoration and waste management can be furthered. It is important to use these departments, as they have both the expertise and purpose necessary to bring about this end. By using the Environmental Restoration and Waste Management Program and a coordinating body, it would be possible to augment the efforts of the various programs into one unified voice calling for better environmental protection. Each of these departments could play an important role in this attempt.

## **Environmental Restoration and Waste Management**

The Nez Perce Environmental Restoration and Waste Management Program currently has a staff of ten. The technical personnel includes an environmental scientist, a cultural specialist, and a nuclear physicist. This program uses these technical personnel to bring about their goal to participate in and monitor all relevant activities of the U.S. Department of Energy. The Environmental Restoration and Waste Management program was recently created to monitor and assist the DOE's cleanup of Hanford specifically. Through the coordination of this program, a cooperation could be instituted to bring together the diverse faculties of the Tribe. This would not only help lighten the load placed on the Environmental Restoration and Waste Management, but would also bring about higher quality materials and opinions.

## **Water Resources Division**

The Water Resources Division plays an important role in participating in the Hanford cleanup. This division has the facilities to monitor the water on and off the reservation for various hazardous and radioactive substances. Currently on staff at the Water Resources Division is a hydrologist, an aquatic biologist, a soil agronomist, and an environmental scientist. "The goal of the program is, to protect the water resources of the Nez Perce Reservation through the participation of the Division in the Snake River Basin Adjudication process, through the conducting of water resource studies, through the developing of water management strategies, and through the developing of water and environmental codes, regulations, and other means to

adequately protect the water resources of the Nez Perce Tribe.<sup>6</sup> This mission statement clarifies the Division's role in protecting the water resources of the Nez Perce Tribe. As the debate over water contamination continues, it is important that the Tribe possess its own monitoring capabilities. In this way, the Tribe can be aware of and react to changes in water quality as soon as it occurs. It would not be necessary for the Tribe to depend on the testing done by the DOE. It would be a great asset to tap the use of hydrologists and other related technical personnel already aware of Tribal interests.

### **Forest Resource Department**

The Forest Resource Department, although not directly involved in the Hanford problem, could be tapped for its resources in soil monitoring capabilities and various other land-related areas. The Natural Resource Department has on staff three foresters, four wildlife biologists, one soil agronomist, and two range conservationists. The Forest Resource Department's mission statement is as follows: "The Forest Resource Management Department includes the Cultural Resources, Wildlife Management, Range and Forest Management programs. The efforts of all these programs are directed towards meeting the needs of the Tribe in activities on the reservation and participating in the planning and decisions of land management activities affecting the Tribe's ceded area."<sup>7</sup> The capacity of the Forestry Resource Department to test various ecologies would end the Tribe's dependence on DOE sampling and allow the Tribe to ensure quality testing. Also, armed with results of guaranteed quality, the Tribe could make more informed decisions and policies.

### **Fisheries Resource Department**

The Fisheries Resource Department is probably the most obviously affected department within this framework. An important part of Nez Perce culture is the salmon, and the Fisheries Department has been given the responsibility of taking care and monitoring this resource. "The Nez Perce Tribe is a fully cooperative entity in fish management and policy in carrying out the recovery and restoration of select salmon species within the Nez Perce Treaty territory of 1855. Efforts are underway to implement specific programs for naturally producing spring, summer, and fall chinook. Plans are underway for programs to include sockeye and coho salmon for research and review this year... The Nez Perce Tribe has indicated a need to carry out a twenty year restoration and recovery program that will include the review of four 5-year life cycles of those select salmon stocks naturally producing in major sub basins of the Grande Ronde-Imnaha, Salmon, and Clearwater Rivers."<sup>8</sup> It is easily seen that healthy fish do not stay that way long in unhealthy waters. When the waters of the Columbia River are polluted or contaminated, the Nez Perce are robbed of their guaranteed right to healthy fish. The potential danger posed to the fish swimming up the Columbia River toward Nez Perce ceded territory is great. The water quality in which the salmon swim must be maintained if this resource is to be preserved.

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<sup>6</sup>*Nez Perce Water Resources Division Management Plan.* Nez Perce Tribe, 1993.

<sup>7</sup>*Forest Resource Management Department Management Plan.* Nez Perce Tribe, 1993.

<sup>8</sup>*Fisheries Resources Management Plan.* Nez Perce Tribe, 1993.

Fisheries, working together with environmental restoration and waste management could monitor water quality, fish health, and the ecosystem in which the fish live.

### **Legal Office**

The legal office is a necessary part of this cooperative effort. The vast quantity of documents produced by DOE, state programs, and the federal government are astounding. The legal office must play a role by monitoring DOE policy and legislative proposals, especially those having an impact on Hanford Five-Year Plan activities.

### **Commercial Interests**

The Tribal resources are not the only things affected by the DOE Environmental Restoration and Waste Management program. Economic and business opportunities are also created as a result of this program. The Tribal benefits are quite substantial. There is a vast array of jobs and projects which could involve construction contractors, transportation contractors, engineering firms, or laborers. Realizing that this work must be done, it would be prudent to use Tribal firms and companies to take advantage of these opportunities.

### **Tribal Employment Right's Office (TERO)**

The Tribal Employment Right's Office (TERO) is a program within the Nez Perce Tribe which has the means to assist job-seekers find employment. TERO's role in Hanford's environmental restoration and waste management is one of taking advantage of the colossal employment opportunities resulting from this cleanup.

### **Private Entrepreneurs**

Private entrepreneurs play a role similar to TERO's—to take advantage of the employment opportunities of the Hanford cleanup. There are a variety of private entrepreneurs with a broad range of expertise who could benefit the Tribe and Hanford, as well as themselves.

### **Human Development**

This is perhaps the most beneficial aspect of this program. Not only is the Environmental Restoration and Waste Management Program in a position to do something about the problems at Hanford, they are in a position to help educate the people. This education would help keep the problems which occurred at Hanford from happening again. Also, a better and more thoroughly educated people make informed choices and understand the mechanics behind such difficult issues as nuclear power or hazardous waste management. This program would encompass programs educating the Environmental Restoration and Waste Management Program's staff, institution of related curricula into the public schools, and awareness and education campaigns for the general public.

### **Staff Education**

A well-trained staff is a necessity to understand, formulate, or respond to the tomes of information given out from the DOE and other agencies. Ideally, an environmental restoration

and waste management staff for the Nez Perce Tribe would be trained about Hanford-specific issues, which would bring about a clearer understanding of the issues as they affect the Nez Perce Tribe.

Another way that this staff could become more adept at maneuvering through the complex world of environmental restoration and waste management would be through participation in college or university classes. These classes could be Nez Perce environmental restoration and waste management specific and taught by various people knowledgeable in relevant fields. By working with the people who play a role in the whole process, the staff would gain a first-hand insight into the national environmental restoration and waste management program as a whole which would prove to be invaluable.

### **Public Education**

Youth education programs are a way to not only help youth understand Tribal and scientific issues relating to environmental restoration and waste management, but it also gives a great resource to Tribal programs. One such way is through the use of internships. Not only would the intern learn first-hand information and experience, but the host agency or firm would receive a valuable asset.

Curricula could also be developed to help teach children in public schools about nuclear and hazardous waste issues. Greater public awareness is created by sparking the interest of school-age children. This is an important step, because the end result of the environmental restoration and waste management program is not to continue cleaning up the environment, but to fix or alleviate the problems now existing and teach the people how to avoid making the same mistakes. This is the entire goal of the human development facet.

### **Community Education**

It is also important for the general public to be aware of the issues surrounding environmental restoration and waste management. As stated previously, when people are educated in the various issues, they are more likely to make informed and educated decisions regarding environmental restoration and waste management. These programs could include things such as public workshops. With these workshops, people could ask questions and also become more informed through presentations by DOE, Hanford, and Tribal speakers.

### **Public and Environmental Health and Safety Interests**

The health and safety issues surrounding the use of radioactive and hazardous materials are quite important to people. It is important that the public be made aware of the precautions enforced and emergency procedures in the event of an accident. The Tribe has a direct role in providing for the safety of Tribal members and reservation residents. This role is brought about because of the Tribe's purpose of protecting its citizens. The protection necessary is provided by several services. These include emergency medical technicians, physicians, and policemen trained in techniques to provide for the public safety in the event of a hazardous materials accident occurring within the boundaries of the reservation.

### **Emergency Response/Indian Health Service**

The Indian Health Clinic in Lapwai has the capacity to take part in emergency response actions. The facility is staffed by two general practitioners, an obstetrics/gynecologist, and four nurses. Two of these nurses are Certified Nurse Practitioners, and two of them are Registered Nurses. Indeed, the mission of the Indian Health Service is to improve the health of the American Indian and Alaskan Native. This purpose blends with the purpose of the Environmental Restoration and Waste Management Program in that both have Tribal member's safety in mind. The Indian Health Service can bring about this end by training their physicians and nurses for hazardous materials accident treatment. Also, as a preventive measure, the resources of the Indian Health Service could be used to provide oversight and participation in on-going and future health and epidemiological studies. These studies would be used to calculate data concerning health risks resulting from DOE activities.

### **Emergency Medical Technicians (EMT)**

The First Response team are those people who have the responsibility of assessing a hazardous situation and bringing the area to a state where safe passage or transport may be allowed. Their responsibility is not to return the area to a pristine condition, merely bring it to a manageable condition. The Nez Perce Tribe has begun to institute this program with the creation of a hazardous materials emergency response team. This team will allow the Nez Perce to respond to incidents on their own reservation, rather than depend on or wait for outside assistance.

### **BIA Police**

The Bureau of Indian Affairs Law Enforcement Department on the Nez Perce Reservation consists of eleven officers. The BIA Law Enforcement Department is a federal law enforcement agency which has jurisdiction within the confines of an Indian reservation. It is within the department's power to enforce all federal and Tribal laws, as well as some applicable state laws. The BIA Police's official capacity in the event of a hazardous materials accident would be to secure the scene, ensure that no persons are contaminated, and to notify the Department of Environmental Quality and the Environmental Protection Agency. Officers must be trained to deal with hazardous or radioactive materials accidents. Procedures for notification must be established and used so adequate response will be guaranteed in a timely manner.

## **Appendix A**

**A Proposal to the U.S. Department of Energy  
Support the Nez Perce Tribe's Participation  
in and  
Monitoring of DOE Five-Year Plan Activities**

**A Proposal to the U.S. Department of Energy  
Support the Nez Perce Tribe's Participation in and Monitoring of  
DOE Five-Year Plan Activities  
(Year 1)**

**I. Introduction**

**A. Proposal**

The Nez Perce Tribe proposes to plan, develop, and carry out a program to facilitate the Tribe's participation in and monitoring of all relevant activities of the U.S. Department of Energy and the Hanford Site Environmental Restoration and Waste Management Five-Year Plans. The Nez Perce Tribe acknowledges that its governmental interests in Five-Year Plan activities do not rise to the same level of those governmental entities which are signatories to the Tri-Party Agreement. Accordingly, the monitoring contemplated by this proposal is not for the purpose of ensuring regulatory compliance.

However, the Nez Perce Tribe believes, as does the Department, that since the Hanford site is located on lands adjacent to lands ceded to the United States by the 1855 Treaty with the Nez Perce and for which the Tribe retains treaty fishing rights as well as hunting, gathering, and pasturing privileges, the Tribe has an interest superior to the public at large. Therefore, the activities contemplated by this proposal are designed to support the Department's efforts to ensure that Five-Year Plan activities are consistent with its obligations to protect the Nez Perce Treaty rights and privileges, and, as a distinct cultural entity whose connections to the land in question go as far back in time as the beginnings of the Tribe itself.

**B. Basis of the Proposed Program**

**1. Treaty**

On June 5, 1855, Governor Stevens explained various treaty provisions that were being proposed for all the Tribes: "You will be allowed to pasture your animals on land not claimed or occupied by settlers, white men. You will be allowed on the roads, to take your things to market, your horses and cattle. You will be allowed to go to the usual fishing places and fish in common with the whites; all this outside the Reservation" (Record of Proceedings, Walla Walla Treaty Council, June 1855).

Since 1855, a lengthy series of federal and state actions have recognized and reaffirmed the reserved treaty rights of the Nez Perce Tribe in the Mid-Columbia area. Accordingly, the interests of the Nez Perce to exploit their usual and accustomed resources and resource areas in the Hanford Reach and elsewhere are protected by treaties and provide a basis for the DOE-Nez Perce relationship contemplated by this proposal.

## **2. DOE American Indian Policy**

On November 29, 1991, the Department announced a seven-point American Indian policy which formalizes the government-to-government relationship between the U.S. Department of Energy and federally recognized Tribes. A key element of the policy pledges prior consultation with Tribes where their interests or treaty rights might be affected by DOE activities. The DOE American Indian Policy provides another basis for this proposal.

More support for the principles articulated in this proposal comes directly from Admiral Watkins who said, in announcing the policy, "The DOE Indian Policy is an important building block of the new culture of openness and responsiveness which I have sought to institutionalize within this department. It also fulfills a promise I made to several of the Tribes working with us on waste management and cleanup activities, and makes more visible the department's commitment to involve Tribes in the entire range of DOE programs."

## **3. Hanford Five-Year Plan**

Section 1.8.4 of the Environmental Restoration and Waste Management Site-Specific Plan for the Richland Operations Office, Interactions with Indian Governments acknowledges the Nez Perce interest in Five-Year Plan activities and indicates that the Department is considering a grant to the Tribe.

### **C. The Roles of the Nez Perce Indian Tribe**

The Nez Perce Tribe assumes many different roles. It is a governmental entity with certain powers and authorities derived from its inherent sovereignty, from its status as the owner of land, and from delegations from the federal government. The Tribe exercises its powers and authorities to serve its members and to regulate activities occurring within the reservation. The Tribe is also a cultural entity and is accordingly charged with the responsibility of protecting and transmitting that culture which is uniquely Nez Perce. The Tribe is also a beneficiary within the context of the federal trust relationship with, and obligations to Indian Tribes. The Tribe is a trustee responsible for the protection and betterment of its members and the protection of its and their rights and privileges. And the Tribe is party to treaties between itself and the United States government.

The Five-Year Plan activities at Hanford touches, in some way or another, each of these roles of the Nez Perce Tribe--and particularly so when the Tribe acts in its cultural, treaty, and trustee roles. The program outlined by this proposal reflects the diverse interests and responsibilities of the Nez Perce Tribe.

#### **1. The Nez Perce role vis-à-vis DOE**

The relationship between the Nez Perce and DOE around Five-Year Plan issues is defined by the trust relationship that exists between the federal government and the Tribe, by the treaty relationship, by the DOE American Indian Policy, and

by the mutual and generally convergent interests of the parties in the efficient and expeditious cleanup of the Hanford Site. The relationship contemplated by this proposal can be best described as a partnership grounded in the site-specific cleanup, but extending to all related activities of the Department.

For example, the Tribe sees itself not only as an advisor to DOE, but also as a previously untapped human resource pool of scientific and engineering personnel that will be available (with proper training) to assist the Department in the 21st century. The Tribe also sees its members as a pool of technically trained and certified labor force for environmental restoration and decontamination and decommissioning work. The proposal contemplates an approach that will integrate these and other roles into a comprehensive Nez Perce-DOE Five-Year Plan Program.

## **2. Relationships with Tribal members and the reservation community**

The Tribe views its primary responsibility toward its members as the protection of Tribal treaty rights and privileges. However expansive that responsibility may be, Tribal leadership would be remiss if that were the only focus of the proposed relationship between the Tribe and DOE. The Nez Perce Tribe also has an obligation to educate its members and the reservation community of its and DOE's activities at Hanford. This will mean reaching into the Head Start program, elementary and secondary schools, and the Tribal and reservation communities. The Tribe also must examine the employment and economic and business development opportunities presented by the cleanup at Hanford and must create programs that will enable Tribal members to realize these opportunities.

## **3. Relationships with other Indian Tribes and Tribal organizations**

The Nez Perce Tribe views its role within the Five-Year Planning context as operating on two levels. The first, and most important, is obviously the Tribe's role as advisor to the site-specific cleanup of the Hanford Site. However, the Tribe realizes that its consultation with DOE contemplated by this proposal will be viewed by both the Department and by other Tribes whose interest in the Five-Year Planning process are not as compelling, as representative of Indian Tribes in general. This is not an unrealistic concept. The fact is that the Tribe must prepare and act on these two levels. It must carry out the monitoring and analysis necessary to be a strong advocate for Tribal rights and privileges at the Hanford Site and must be able to extrapolate from the site-specific analysis the generalized concerns that are relevant to Indian Tribes across the country. The transportation issues and planning for human resource development we believe, fit into the category. The Nez Perce Tribe believes that it can and must operate on these two levels and that it has access to forums, e.g., the National Congress of American Indians and the Council of Energy Resource Tribes to receive input from other Tribes and to otherwise act as a credible representative of general Tribal interests related to the DOE Environmental Restoration and Waste Management Five-Year Plan.

## **II. Five-Year Plan Development**

The Environmental Restoration and Waste Management has and will continue to provide opportunities to states, Tribes, and the public in general, for involvement in the Five-Year planning process. The Nez Perce Tribe proposes to consult with DOE on the development of the site-specific Hanford and the EM-wide Five-Year Plans. However, such involvement in Five-Year Plan development will be credible and effective only if Tribal participants are knowing and informed. The programs contemplated by this proposal will provide the Nez Perce Tribe with independent sources of technical assistance and expertise until staff become educated and informed in these areas. Without such technical assistance and expertise, the Nez Perce Tribe believes that its participation in DOE Stakeholders' Forum, the State and Tribal Government Working Group, and review of site-specific Activity Data Sheets will be less than useful to the DOE and will ill-serve the interests of the Nez Perce Tribe and its members. With such technical assistance and expertise, the Nez Perce Tribe proposes the following activities relating to Five-Year Plan Development:

- A. Monitor DOE budget and legislative proposals to determine impact on Hanford Five-Year Plan activities.
- B. Participate in development and review of Hanford Five-Year Plan, including review of Activity Data Sheets.
- C. Review and analysis of other DOE facility on-going and proposed Five-Year Plan activities with impacts on Hanford operations
- D. Participate in DOE and Tribal organization forums to provide input into the Five-Year planning process.

## **III. Waste Management and Environmental Restoration**

The Nez Perce Tribe proposes to monitor and participate in Hanford Five-year Plan waste management and environmental restoration activities. The Tribe suggests that it is in the best interests of both the Tribe and DOE that there is trust and confidence in the waste management and environmental restoration operations at the Hanford Site. Further, the Tribe suggests that the primary means by which trust and confidence will be repositied in the process is by the knowing, informed, and active participation and monitoring of Hanford Five-Year Plan operations.

The leadership of the Nez Perce Tribe has an obligation to protect the Treaty rights and privileges of the members of the Tribe. Just as DOE requires public confidence and support of its plans and activities for the efficient dispatch of its cleanup responsibilities, so too does the Tribe require trust and confidence in its representation and protection of Tribal interests. Therefore the Tribe must be able to explain, not only to DOE, but to Tribal members as well, the impacts of the construction of new treatment, storage, and disposal facilities, e.g., the Hanford Waste Vitrification Plant, and the low-level waste grouting facility. The programs contemplated by this proposal will enable the Nez Perce Tribe to obtain the technical assistance and training to develop the institutional expertise necessary to review and analyze Hanford environmental restoration and waste management operations to identify the impacts such operations will have

on the environment and upon the Treaty rights and privileges of the Tribe. Similarly, participation in environmental surveillance and other areas will enable the Nez Perce Tribe to advise DOE and Tribal members of the efficacy of such programs. With such technical assistance and expertise and institutional capability, the Nez Perce Tribe proposes to carry out the following activities relating to Environmental Restoration and Waste Management:

- A. Periodic review of on-site implementation activities.
- B. Review of technical reports prepared by DOE and DOE contractors, including the preparation of summaries and briefings thereof for Tribal and community leaders.
- C. Planning and training for Tribal member participation in environmental surveillance.
- D. Observation of DOE environmental surveillance.

#### **IV. Human Resource Development**

In the near- and long-term, the missions of both the Nez Perce Tribe and the U.S. Department of Energy and well as the United States in general will require more scientists, engineers, and technicians. This common need is driven by the increasingly stringent environmental protection regulatory regime, the shift from and industrial to an electronic communications economy, and the growing pressure on land and natural resources to accommodate a burgeoning and primarily urban population. The Nez Perce Tribe believes that the development of math, science, and technical education programs for all educational levels is essential to the Tribe's survival. To that end, the Tribe has been working with the 49 Tribes of Council of Energy Resource Tribes to develop and expand CERT's math, science, and technical education programs for Tribal members. The Nez Perce Tribe proposes to hire Tribal members with bachelor's degrees or some college and provide both training via Hanford, and education through college and university level courses with the intention of advancing technician level employees to professional/technical level employees. As this occurs, CERT's involvement will decrease and the Tribal staff will be capable of providing the technical expertise required. The Nez Perce Tribe proposes to carry out the following Human Resource development activities in support of its participation in the Five-Year Planning process:

- A. Planning and development of programs to prepare Tribal members and others interested in working on Tribal federal facility cleanup issues for such work. Such programs include, but are not limited to:
  - 1. Staff development through Hanford-related training, and college and university classes toward the goal of advancing employees to the M.S. and Ph.D. levels of education in appropriate technical fields.
  - 2. Internships and other educational programs with DOE, its laboratories and contractors, and other engineering and scientific companies or agencies for students who express interest in working for the Tribe on federal facility cleanup issues.

3. Development of curriculum on environmental restoration and radioactive waste management for elementary and secondary schools on the Nez Perce Indian Reservation.
4. Planning and execution of programs designed to train and certify Tribal members and others for laboratory, technical, and other employment incidental to the cleanup of Hanford.
5. Participation in the math, science, and engineering and internship programs offered by the Council of Energy Resource Tribes.

## **V. Technology Development**

The Nez Perce Tribe noted with some dismay that the public involvement process articulated by the site-specific Hanford Site Five-Year Plan did not extend to its technology development effort. The Tribe believes that it is a mistake for the Department to preclude public involvement in its research and technology development activities. By public involvement the Tribe does not mean that the public should dictate the research agenda, or to interfere with the free inquiry and free thought so essential to the scientific method. However, DOE should be aware of the enormous chasm that often exists between what has been described as technical and cultural rationality. On one hand, the practitioners of the technical model place great trust in scientific methods, explanations, and evidence, while the cultural rationalists view their opposites as unfeeling, autocratic, and insensitive. The Tribe believes that building confidence and trust in the DOE's management of Five-Year Plan activities requires that the public in general, and the Tribe specifically, have an opportunity to communicate their goals and aspirations to the scientific community so that the scientists and engineers can incorporate that input into their research agendas and their development of standards.

Accordingly, the Nez Perce Tribe proposes to carry out the following technology Development activities in support of its participation in the Five-Year Planning process:

- A. Creating a forum to communicate Tribal concerns, goals, aspirations, etc. to the Hanford Technology Development Team.
- B. Monitoring DOE-wide research and development initiative to determine impact on Hanford Five-Year Plan activities.

## **VI. Public Education/Public Information**

The Nez Perce Tribe proposes a public education/public information program that operates on two levels. At the first level those members of the Tribal staff who will have the primary responsibility for interacting with DOE on Five-Year Plan issues will themselves have to become educated in the site-specific issues and the implications thereof to the general Five-Year Planning process. These Tribal staff will participate in DOE briefings, Tribal organization forums, and other educational and training sessions to familiarize themselves with Five-Year Plan issues. The Tribe will initially utilize the Council of Energy Resource Tribes to provide technical assistance and expert advice to Tribal staff and leadership. Concurrently, the manager will develop short- and long-term educational plans for staff which will be and integral part of their jobs on an on-

going basis. The intent here is to establish and develop the Tribal technical, educational, and management institutions required for near- and long-term participation in Hanford cleanup activities.

At the second level, the Tribal institutions must analyze, summarize, distill, and transfer the knowledge gained to the Tribal community at large. The Tribe believes that the broadest possible public education is required first to obtain informed community input and second, to gain the confidence and trust of Tribal members. Accordingly, the Nez Perce Tribe proposes to carry out the following Public Education/Public Information activities in support of its participation in the Five-Year Planning process:

- A. Preparation and presentation of briefing and status reports to Tribal council, Indian and non-Indian reservation community members, Tribal and Indian organizations, and federal, state, and local government personnel.
- B. Pre-decisional participation in establishing DOE cleanup standards and activities to protect cultural resources including archaeological sites and habitat for fish, game, and plants.
- C. Participation in DOE and other advisory groups and forums used by DOE to obtain input to the development of the DOE Five-Year Plan.
- D. Participation in Indian and Tribal organizations' meetings on radioactive waste and federal facility cleanup issues.

## **VII. Health and Emergency Response**

Tribal members have voiced strong concerns over the health and safety implications of the Hanford cleanup and of historical activities at Hanford. The Nez Perce Tribe proposes the following activities and to participate in health and safety studies.

- A. Training of Tribal staff for oversight and participation in on-going and opportunities to participate in and planning of future health and epidemiological studies.
- B. Oversight and participation in on-going and future health and epidemiological studies.
- C. Determination of transportation and emergency response impacts of Five-Year Plan activities on the Nez Perce Tribe.

**COUNCIL OF ENERGY RESOURCE TRIBES**

**PUBLIC SERVICE COMPANY OF COLORADO**

**1993 SUMMER INTERNSHIP PROGRAM**

**CLARENCE A. GARCIA, INTERN**

- **PERSONAL STATEMENT**
- **RESUME**
- **REPORT**

## Clarence N. Garcia

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My name is Clarence N. Garcia from Acoma Pueblo. I was born in Albuquerque, New Mexico to Richard P. Garcia Sr. and Eleanor V. Garcia, of whom I am the youngest of six children. I am attending the University of New Mexico where I am pursuing a degree in Civil Engineering.

When I first began my education, I totally disliked everything about school, especially the idea of having to learn new things. With due time and much support from my family, I became a person who went from hating to learn to a person who cannot get enough of education. The reason for this is because I have learned what an education can do for me in this world, and the more I get educated, then the more I appreciate life which has a numerous amount of paths which have all been open to me because I have become educated.

It is my hope and dreams that I will be able to open other peoples' minds, especially the younger Native American population, to the wonders of getting an education. When I say getting educated, I mean getting educated in every aspect of life, because this world is so full of things to learn that it makes me sad to know people are not educated in basic things, such as reading.

I would like to thank both CERT and the Public Service Company of Colorado on both their parts in giving me a wonderful opportunity to be educated this summer. This experience has opened many new doors to explore and has made me a more educated person. Thank you once again, CERT and Public Service Company of Colorado, for such a rewarding summer.

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NACME Scholarship Award  
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Honor Society

**COUNCIL OF ENERGY RESOURCES TRIBES**

**1993 SUMMER INTERNSHIP REPORT**

**PUBLIC SERVICE COMPANY OF COLORADO**

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## **Introduction**

This summer, I had a terrific experience working with Public Service Company of Colorado (PSCo). I was taught a variety of things when working as a summer Engineering Intern for Public Service Company of Colorado, varying from the office to field work which is all very essential and important to having a utility company run effectively. Thus, keeping all this in mind, I would like to share my experience as a summer Engineering Intern for the Public Service Company of Colorado, by telling about some of my projects and work experiences which I gained.

## **Compiling Job Books**

One of my first projects was compiling job books for fairly new sites known as compressor stations. These books contained all the necessary equipment and instructions for maintaining these compressor stations, which are essential to the distribution of natural gas to the surrounding populous areas of Colorado. The main reason I was given this project was so I could get acquainted with some of the equipment and the gas transmission of natural gas through the Public Service Company of Colorado gas system. It also helped me get familiar with their schematics of gas flow (Schematics 201, 202 and 203) through the compressor station before I went to an actual site.

After a few weeks of asking numerous questions, I became knowledgeable of the general overview of PSCo. I learned gas distribution, mechanical operations of different machines, codes and regulations, purchasing of equipment, construction, politics, project work and working with fellow employees. It was about a couple of weeks into the internship that I began to understand that each of the areas I just mentioned don't stand alone. I learned that each individual area is in one way or another intertwined with the other areas. Thus, rather than trying to explain them separately, I will incorporate them all together and tell it how it is in the "real world".

## **Overview of Compressor Stations**

My next project was to go to different Public Service Company of Colorado sites to enhance my understanding of how a compressor station functions. It was then I began to understand some of the literature I was reading and learning about the actual operations of how gas is distributed through the State of Colorado (Figure 1). All the literature I read before I went to a site didn't answer all my questions, so it was during this time I began to be more assertive with my curiosity. I began interacting with my fellow workers to quench my thirst to understand the

many different areas of Public Service Company of Colorado.

The main reason a compressor station is used in gas distribution is for the transport of natural gas to customers at their homes or businesses. I will now explain how a compressor station works and the purpose of a compressor station in the distribution of gas. A compressor is made up of pistons which are run by an engine or a driver (Figure 2). It is these pistons in the compressor that compress gas as it comes into the station (Figure 3), and will compress the gas to the desired pounds per square inch (psi). The reason gas needs to be compressed is because gas flows within a pipeline. Gas comes in contact with the pipe causing gas to lose pressure as it travels further to its destination. A compressor station gives gas the extra push to make it to customers in distant areas. Each compressor is run by a large engine which is just like a big automobile engine. These engines are what control the pistons within a compressor, which compresses the gas to the desired pounds per square inch which PSCo feels is necessary for sending it to their customers. Actually, a compressor is a tool in gas distribution for sending natural gas.

### **Leyden Compressor Station**

Another compressor station I was able to visit was the Leyden Compressor Station, which functions as a storage facility, as well as a compressor station of natural gas for PSCo. At this compressor station, gas is stored in an old abandoned coal mine which was just closed up, so natural gas could be stored in it for use in the winter months. Leyden Underground Storage Facility was the first facility of its kind, and even today, only one other such facility exists in the world. The underground storage facility covers two and one-half square miles and can store up to three billion cubic feet of gas at 250 psi. This amount can supply 22,900 average households with heat and hot water for one year. The gas used to supply Leyden comes through pipelines either from West Gas or Colorado Interstate Gas which are major Colorado gas suppliers. The way Leyden Underground Storage Facility works is as follows. Natural gas is injected into the mine during off-peak times and withdrawn into Public Service Company of Colorado's system during times of high usage. The storage area where the natural gas is stored has layers of both shale and sandstone above and below the coal seams which keep most of the gas from seeping out of the mine. However, because the storage pressure of the gas is more than the native pressure, some gas does seep into adjacent sandstone formations. To get the gas back, pressure is lowered to below native pressure, thereby permitting the gas to gradually return to the cavern area. Then, during the months of November through April, Leyden Compressor Station is used in the distribution of its stored natural gas. Before it is sent to PSCo customers, it is withdrawn from the storage area and run through a lengthy cleaning process. It's run through scrubbers

to remove dirt and other solid particles. It's sent through dehydrators, which are tall cylindrical towers which hold trays of a chemical, glycol. It is this glycol in a dehydrator which absorbs any water that may have accumulated within the natural gas. Only then is the gas fed into Public Service Company of Colorado's distribution system. After, I saw how a compressor station functions and saw the purpose of the compressor station.

### **New Airport**

I was then treated to a visit at the new airport project site where compressors and pipeline were actually in the process of being built during construction. It was also there that I learned about some of the areas of politics, codes and regulations, and field work which Public Service Company of Colorado has to deal with.

The politics of this project began when the new airport was in the planning stages of being built. It started when this small business called Natural Fuels Corporation asked the City of Denver if they could build the compressors and lay the pipeline for the airport. The City of Denver turned down Natural Fuels Corporation because they felt Natural Fuels Corporation was too small of a business to do the job. The City of Denver also felt that if Natural Fuels Corporation happened to mess up during construction, then the City of Denver would not be able to sue Natural Fuels Corporation for the full extent of any damages because their business was too small. Therefore, since Natural Fuels Corporation is a subsidiary of Public Service Company of Colorado, they asked PSCo if they could pay for the project, but have their corporation build the new compressors and pipeline at the airport. Public Service Company of Colorado did agree to pay for the project work and have Natural Fuels Corporation build the new compressors and pipeline, but now Natural Fuels Corporation has fallen behind schedule causing PSCo to take major responsibility for the construction of the compressors and pipelines at the new airport.

### **Codes and Regulations**

The Public Service Company of Colorado also deals a lot with codes and regulations of how a compressor station and how pipeline should be built according to the Department of Transportation (DOT). The DOT gives codes and regulations for how a compressor is to be built within city limits, as well as other different areas in Colorado. They also make Public Service Company of Colorado comply to all safety regulations in the transport of natural gas through their pipelines. For example, they regulate the strength of the pipeline for whatever amount of gas pressure is to be sent through it. They also regulate the purity of the natural gas being sent to the customers of Colorado. This brings up regulations which are set by another organization

called Occupational Safety and Health Administration (OSHA), which deals with safety regulations at construction sites. For instance, they determine how a hole should be dug for underlying pipeline, and they also regulate the proper work attire and equipment that the workers should be wearing. For example, they tell welders to wear a full head helmet when welding and they tell all workers to wear steel-toed shoes, long-sleeve shirts and a hard hat.

As for the actual field work, I learned that safety always comes first at any work site, especially dealing with a very combustible gas. I also learned the purpose of an Engineer at a construction site. The Engineer's role is to make sure everything is being built according to codes and regulations, and to make sure that every worker knows their part in detail before construction. It is the Engineer's responsibility to communicate effectively with all the workers to make sure everybody knows their responsibility at the project site. It should be the Engineer's responsibility to know any little details of how a site functions if it already exists, or to know plans for building a new site.

### **Deer Creek Compressor Station**

Now, I would like to tell of my most rewarding project which was to be able to work on a project with help from my fellow workers. This project was at a compressor station known as Deer Creek Compressor Station. The project work that need to be done at Deer Creek Compressor Station was the replacing of a new suction header valve, replacing of the pipe which did not meet DOT regulations, and putting in another valve at the bypass so the check valve could be checked every year, thus, meeting DOT regulations (Figure 4.)

The first step in preparing to begin project work is to fill out a Gas Work Authorization (GWA) form which is most essential in beginning a project. The reason for this is because you get a job number which needs to be put on every document from start to finish. This job number is like a title to a book, it gives a project a title for documentation and it determines where the money is coming from to do this job and where the money is being spent within the company. As for the GWA form, it gives the total cost of the project work to be done and has the signatures of the people who have the ability to authorize project work for gas transmission.

The next step is to call up several vendors and ask them for prices on the necessary equipment required for the project. I then determined what vendors had the lowest prices on the materials needed and I started to fill out a spreadsheet on the detailed estimate cost of the total project work. This detailed estimate worksheet must contain costs for equipment for the project work, labor costs and overhead costs of all the laborers, equipment and materials.

The next step is writing up a Necessity and Benefits paper, which describes in a summary the content of the project. It also tells the importance of the project work, why it is needed to be done, where the money is coming from to pay for the project and the future benefits of the project work. Then I started the purchasing of materials from vendors with the cheapest prices for material, and with this I also started filling out purchase orders for the material which I purchased from each individual vendor. It is here, too, the people doing the construction must be notified and appointments set with them for a job showing the area that is under construction. It is here that PSCo allots a timeframe for the project work to be done. Load Control, which is the part of the company that monitors the gas flow, needs to be contacted along with the gas distribution part of the company for a job showing to tell them of the project work.

Prior to any sort of job showing, the Project Engineer needs to have a tie-in procedure which is a step-by-step procedure of how the project work will be sequenced from start to finish. Once the job showing is in progress, the Project Engineer needs to answer any questions that may arise from individual parties involved in the tie-in procedure. Therefore, once everyone knew exactly what would take place on the tie-in procedure, I then set a date of the tie-in procedure and started excavating the land and prepared any other factors involved leading to tie-in day.

This project construction at Deer Creek Compressor Station started on July 26 and ended August 6. In this time period, I saw and fully understood the importance of all the preparation that needs to be done before the actual construction began. When I was out in the field, I saw many problems arise that are unforeseen to a Project Engineer who is in the office starting out a project. Many problems arose when I did work on this project, and yes, I did get frustrated at times, but it made me think and try to solve problems by asking many questions. It was this project that also taught me that field work takes much communication with the workers and much preparation for everything to work effectively in the construction process. This project reminded me of a huge puzzle, because if you're missing one piece then the puzzle is not complete. In this line of work, an incomplete puzzle or project causes many problems in the process of gas distribution.

At the closing of this project, I had to fill out more paperwork for the laborers and equipment costs for the duration of the project. In Appendix VI, I included all the paper work that needs to be done for a project.

## Conclusion

I would like to conclude by saying thank you to all who were involved with this project, and to everyone who was willing to share their knowledge with me at Public Service Company of Colorado. Next, I would also like to thank the CERT staff for giving me the opportunity to participate in their summer intern program which has been one of my most rewarding experiences yet.

## APPENDICES

- I. Gas Flow Description Sheets to Schematics:
  - A. Schematics 201
  - B. Schematics 202
  - C. Schematics 203
  
- II. Gas Distribution Map (Figure 1).
  
- III. Picture of Compressor with Drawing of Engine Functions (Figure 2).
  
- IV. Picture of Cross-Section of Compressor with Drawing of Compressor Functions (Figure 3).
  
- V. Tie-in Procedure.
  
- VI. Drafting Sketch of Project Work to be Done at Deer Creek Compressor Station (Figure 4).
  
- VII. Calculations for the 8" and 10" Pipes at Deer Creek Compressor Station.
  
- VIII. Paperwork for Deer Creek Compressor Station Project.

## APPENDIX 1

### I. Gas Flow Description Sheets for Schematics

A. Schematics 201

B. Schematics 202

C. Schematics 203

## **DESCRIPTION OF SYSTEMS**

The plant consists of several systems of equipment, piping and instruments. Each system has a particular purpose which is described below:

### **A. Gas Treating System**

(Refer to Mechanical Flow Sheet 441-201)

Inlet gas enters the plant at 50 MMCFD, 968 PSIG and 100 F. The gas is filtered in the Inlet Filter Separator (F-401) to remove solid particles and liquids to 0.3 microns and larger.

The filtered gas enters the base of the Gas Contactor (T-501). The gas moves up through the tower contacting the descending liquid amine on a series of twenty trays. The trays are designed so that liquid amine flows across each tray, over a weir on the outlet edge which holds a liquid level on the tray, and down the downcomer to the next tray. Gas moves up through valves located throughout each tray deck. Gas and liquid will come into intimate contact on each tray, providing time for the amine to remove carbon dioxide from the gas by absorption and chemical reaction. This process is exothermic so a temperature increase will be observed. The gas leaving the top of the Contactor is "Treated Gas" which has had the majority of it's carbon dioxide removed.

The treated gas is cooled from 124° F to 110° F in the Treated Gas Cooler (A-301). This condenses water which was absorbed by the gas as its temperature increased in the Contactor. The cooled gas enters the Treated Gas Scrubber (V-403) where the condensed water and any entrained liquid amine drop out. The cooled, scrubbed treated gas then exits the plant to the pipeline.

The Gas Contactor is equipped with a differential pressure indicator (PDI-501). This can be used to identify amine foaming problems in the Gas Contactor.

### **B. Amine System**

(Refer to Mechanical Flow Sheets 441-201 and 202)

The plant employs a circulating amine solution for removal of carbon dioxide by

absorption and chemical reaction. The design lean amine circulation rate is 525 GPM. The amine solution consists of 50 weight percent methyldiethanolamine (MDEA) and 50 weight percent treated water. The water may be treated by either distillation or deionization. Untreated water should not be used because impurities in the water can cause foaming in the Contactor and chloride content above 25 PPM may cause stress corrosion cracking in the stainless steel.

The lean amine is fed into the top of the Gas Contactor (T-501) and flows down the tower contacting the inlet gas which is moving up the tower. The amine leaving the bottom of the Contactor is called "Rich Amine" because it is now saturated with carbon dioxide absorbed from the gas. The rich amine is collected in the bottom of the tower where the level control valve (LCV-501) dumps the rich amine to the Amine Flash Tank (V-405).

In the Amine Flash Tank (V-405), methane and carbon dioxide escape from the rich amine because of the reduction in pressure (960 PSIG to 60 PSIG). If hydrocarbon liquid is present, it can be removed through the hydrocarbon skimmer valves.

The flashed rich amine liquid is filtered to remove 5 micron and larger particles in the Rich Amine filter (F-408). Rich amine then flows to the Amine/Amine Exchanger (D-201) where it is heated by exchange with the lean amine. The rich amine is maintained at nearly Amine Flash Tank pressure through the action of the Amine Flash Tank Level control valve (LCV-405), located downstream of the Amine/Amine Exchanger.

The heated rich amine flows from the level control valve to the top of the Amine Still (T-503). The Amine flows down through the Amine Still on valve trays in the same manner as in the Contactor. Separation in the Still is accomplished by heating the bottom of the tower with the Reboiler and cooling the top of the tower with the reflux. This establishes a temperature gradient through the tower which causes the carbon dioxide (lower boiling) to work its way to the top, and the amine (higher boiling) to work its way to the bottom of the tower. The water acts as a coolant (reflux) in the top and stripping vapor (steam) in the bottom.

The vapor leaving the top of the Amine Still consists primarily of steam and carbon dioxide. This vapor is cooled to 110° F in the Still Reflux Condenser (A-303) where a majority of the steam is condensed to water and separated in the Still Reflux Accumulator (V-407). All the condensed water is pumped back to the top of the Still as reflux through the Accumulator (V407). All the condensed water is pumped back to the

top of the Still as reflux through the Accumulator level control valve (LCV-407). The remaining vapor, primarily CO<sub>2</sub>, leaves the Still and flows to the acid gas vent through the Still pressure control valve (PCV-503). The design Accumulator pressure is 6 PSIG.

Amine from the bottom of the Still is gravity-fed to the Amine Reboiler (E-202). The vapor generated by the Reboiler consists primarily of steam. This vapor returns to the Still and flows up through the trays to strip the carbon dioxide from the amine flowing down the Still. The heat medium to the Reboiler is adjusted by the computer to maintain a ratio of heat input to amine circulation rate. This ratio should be adjusted by the operator to produce a lean amine saturation of 0.0006 moles of CO<sub>2</sub> per mole of MDEA.

The heated and stripped (lean) amine accumulates in the surge area of the Reboiler. It is pumped by the Amine Booster Pumps (P-601/2/3) through the Amine/Amine Exchanger (E-201) and then air cooled in the Amine Cooler (A-304) to 120°F.

A side stream (15 percent) of the cool, lean amine flows to the Amine Charcoal Filter (F-411) for absorption of hydrocarbons and other impurities. It is then filtered in the Lean Amine Filter (F-412) to remove any solid particles which may be present. The side stream returns just upstream of LCV-202 which is the Amine Reboiler surge level control valve.

The cool, lean amine then accumulates in the Amine Surge Tank (V-406). The Amine Circulation Pumps (P-606/7/8) pump lean amine from the Amine Surge Tank to the top of the Gas Contactor (T-501). The amine circulation rate is controlled by FCV-607 which is a spillback from the Amine Circulation Pumps to the inlet of the Amine Cooler (A-304).

The lean amine can be introduced to the Gas Contactor at tray #1, tray #3 or tray #5. Tray #1 is normally used.

Foam inhibitors are injected to the lean amine just before it enters the Gas Contactor. Foam inhibitors are stored in the Defoam Tank (V-414) and pumped by the Chemical Injection Pumps (P-615/616).

Water Make-Up and Amine Make-Up enter the base of the Amine Still.

C. **Heat Medium System**

(Refer to Mechanical Flow Sheets 441-202 and 203)

The Heat Medium System transports heat from the Heat Medium Heater (H-701) to the Amine Reboiler (E-202). The heat medium is 50 weight percent triethylene glycol (TEG) and 50 weight percent distilled water. The heat medium collects in the Heat Medium Surge Tank (V-413). It is pumped by the Heat Medium Pumps (P-610/11/12) to the Heat Medium Heater where it is heated from 297°F to 355°F.

The outlet temperature is controlled through the action of TIC-701, which adjusts the flow of fuel gas to the heater. The heat medium flowrate to the Amine Reboiler is adjusted to control the lean amine saturation at 0.0006 moles of CO<sub>2</sub> per mole of MDEA.

The Heat Medium heater is a vertical radiant convection-type fired heater. It has four pass flow arrangements and four fuel gas burners. The pilots have electric ignition.

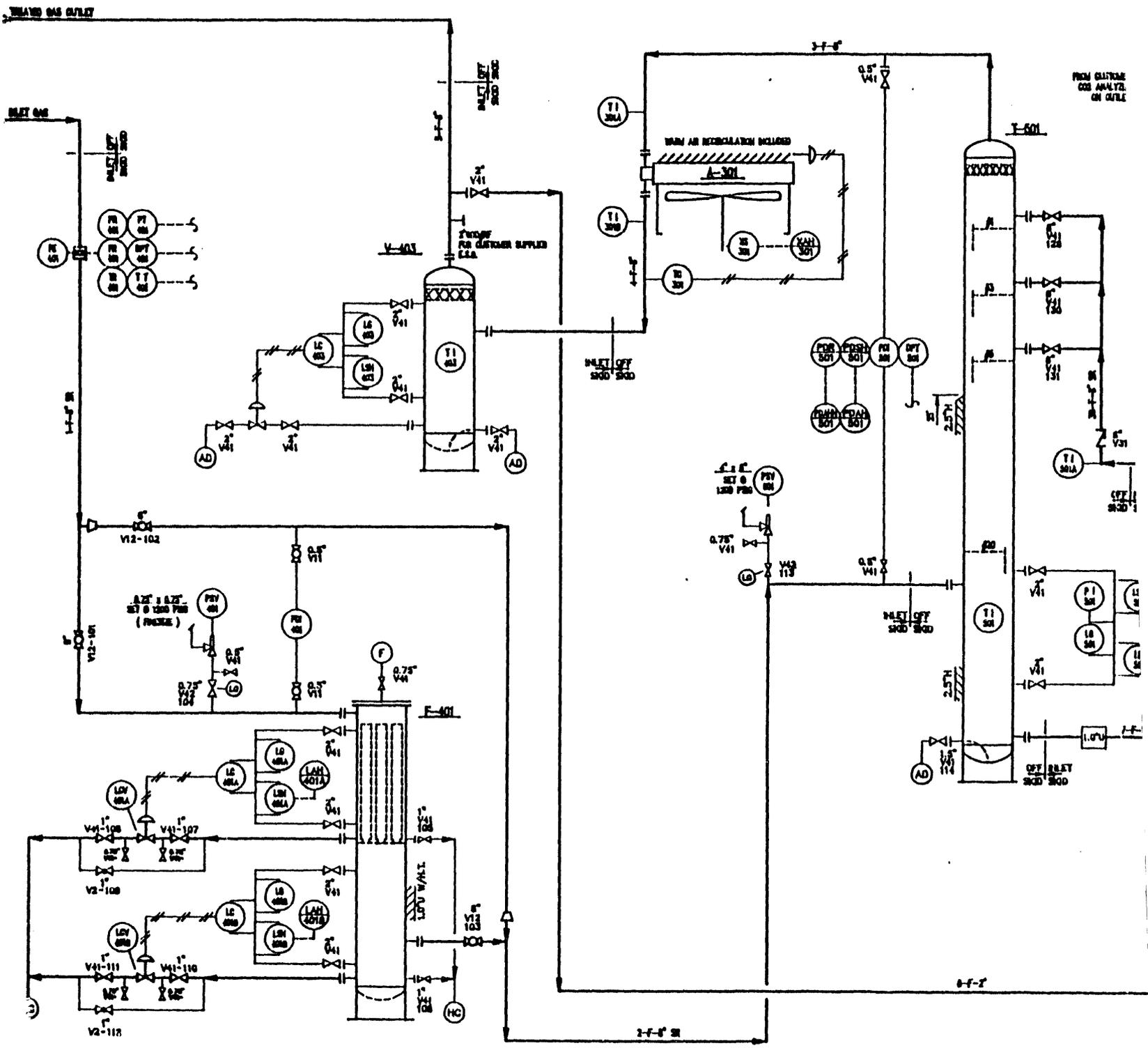
**V-401**  
TREATED GAS REFLUXER  
24" D. x 120" H.  
1200 PSI D.P. @ 180° F.

**F-401**  
MULTI FILTER SEPARATOR  
24" D. x 120" H.  
1200 PSI D.P. @ 180° F.  
77V-21-FF336-36-1200

**A-301**  
TREATED GAS COOLER  
1444 LB/1.5 H.  
1200 PSI D.P. @ 200° F.  
(2) 1/2 HP. MOTORS

**T-501**  
GAS CONTACTOR  
48" D. x 112' H.  
1200 PSI D.P. @ 200° F.

**P-505**  
AIR/NE CIRCULATOR  
28" D. x 112' H.  
200 H.P. MOTOR



- (A) INLET PRESS. 4" W.C. @ 100 PSI
- (B) INLET PRESS. 4" W.C. @ 100 PSI
- (C) INLET PRESS. 4" W.C. @ 100 PSI
- (D) AIR PRESS. 4" W.C. @ 100 PSI
- (E) AIR PRESS. 4" W.C. @ 100 PSI
- (F) AIR PRESS. 4" W.C. @ 100 PSI
- (G) AIR PRESS. 4" W.C. @ 100 PSI
- (H) AIR PRESS. 4" W.C. @ 100 PSI
- (I) AIR PRESS. 4" W.C. @ 100 PSI
- (J) AIR PRESS. 4" W.C. @ 100 PSI
- (K) AIR PRESS. 4" W.C. @ 100 PSI
- (L) AIR PRESS. 4" W.C. @ 100 PSI
- (M) AIR PRESS. 4" W.C. @ 100 PSI
- (N) AIR PRESS. 4" W.C. @ 100 PSI
- (O) AIR PRESS. 4" W.C. @ 100 PSI
- (P) AIR PRESS. 4" W.C. @ 100 PSI
- (Q) AIR PRESS. 4" W.C. @ 100 PSI
- (R) AIR PRESS. 4" W.C. @ 100 PSI
- (S) AIR PRESS. 4" W.C. @ 100 PSI
- (T) AIR PRESS. 4" W.C. @ 100 PSI
- (U) AIR PRESS. 4" W.C. @ 100 PSI
- (V) AIR PRESS. 4" W.C. @ 100 PSI
- (W) AIR PRESS. 4" W.C. @ 100 PSI
- (X) AIR PRESS. 4" W.C. @ 100 PSI
- (Y) AIR PRESS. 4" W.C. @ 100 PSI
- (Z) AIR PRESS. 4" W.C. @ 100 PSI

NOTE:  
1. ALL CLASS "Y" GAS AND AIR/NE PIPING TO BE VICE ASCRATED  
2. OFF-GRID INSTRUMENTATION AND BLOCK VALVES SHOWN TO BE PROVIDED BY LA BURELL CO., AND TO BE INSTALLED BY OTHERS

PILOT DATE: 05-20-50  
D.W. FILE: 44/44-20100

REV.	
A	

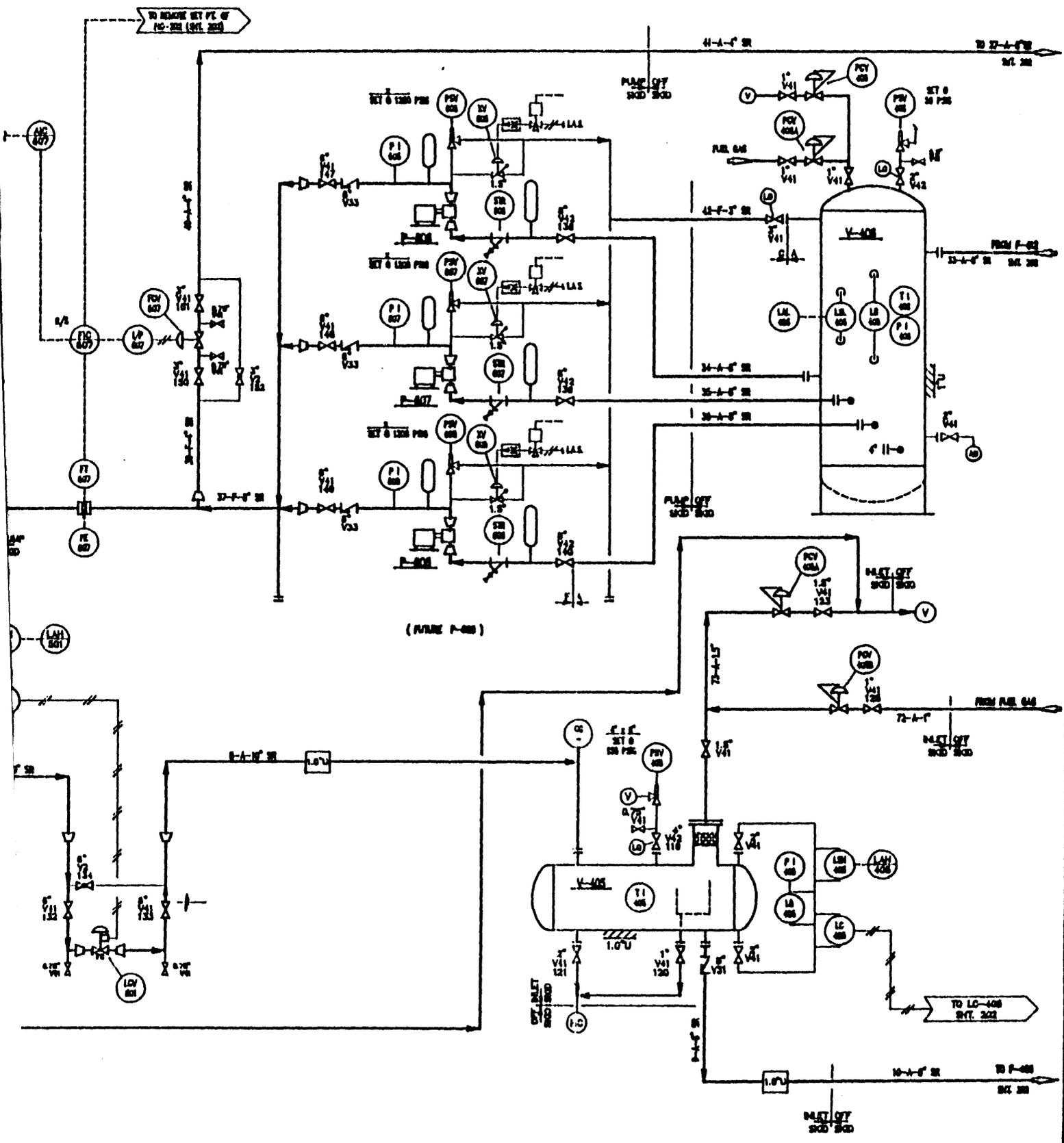
P-607  
ANNE CIRCULATION PUMP  
200 GPM @ 1120000  
200 H.P. MOTOR

P-608  
ANNE CIRCULATION PUMP  
200 GPM @ 1120000  
200 H.P. MOTOR

P-609  
ANNE CIRCULATION PUMP  
( FUTURE )

V-405  
ANNE FLASH TANK  
150" D. @ 12'-0" H. @ 200 V.

V-408  
ANNE SLUDGE TANK  
100" D. @ 12'-0" H. @ 200 V.



PRINT DISTRIBUTION RECORD										
NO.	P.	PA.	A.	REP.	FILED.	DATE.	VEN.	FILE.	PERSON.	NO.
1										NOA
2										
3										
4										
5										
6										
7										
8										
9										
10										

NO.	DESCRIPTION	BY	DATE

**T. H. RUSSELL CO.**  
TULSA, OKLAHOMA

MECHANICAL P/PIPE P-608  
ANNE FLASH TANK & SLUDGE TANK  
SHEET 201

DESIGNED BY	DATE	DRAWN BY	DATE	CHECKED BY	DATE	NO.

441-201





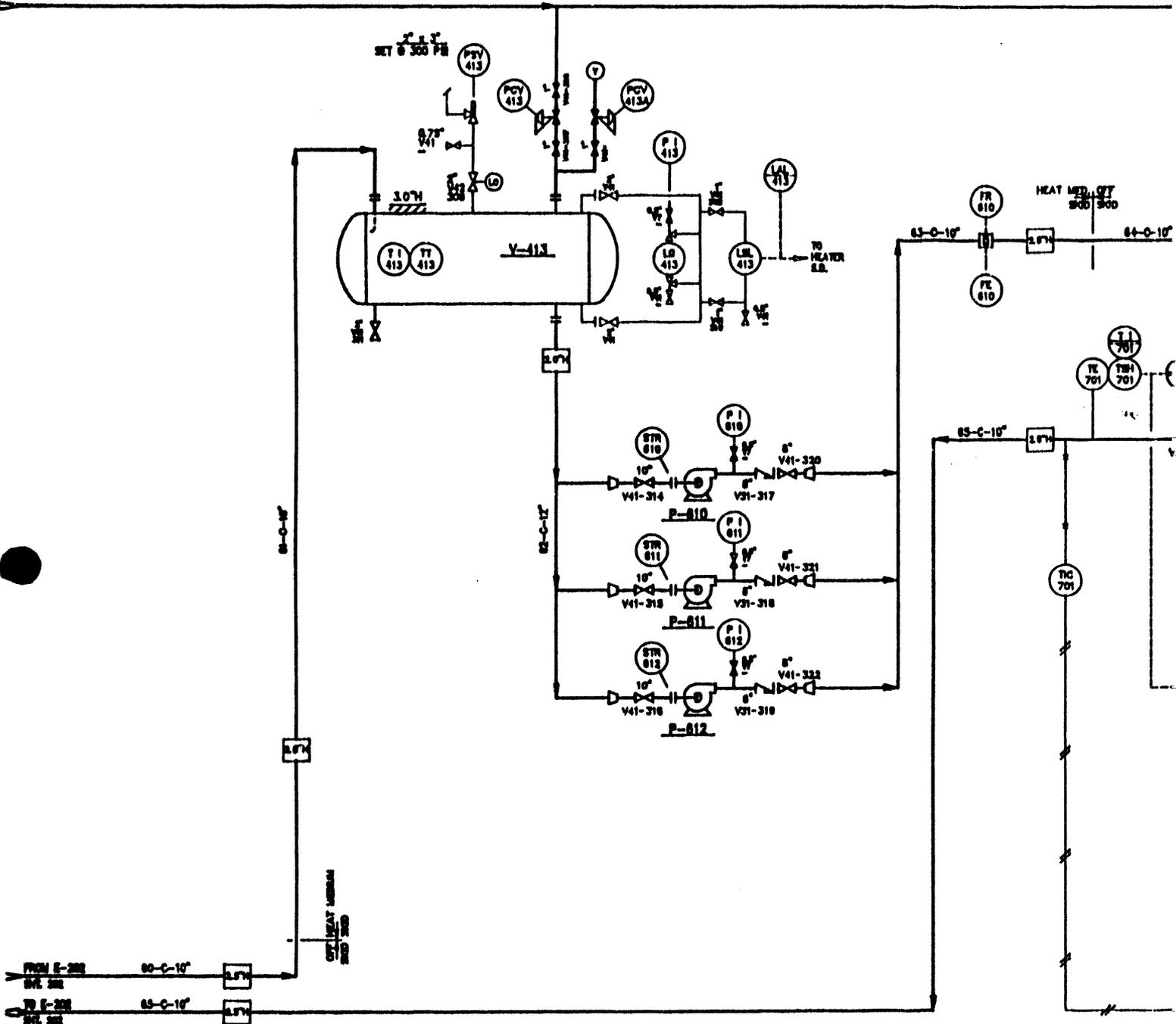
V-413  
HEAT MEDIUM SURGE TANK  
72" D. S. 17'-6" H. S. S.  
300 P.S.I. D.P. S. 4007

P-810  
HEAT MEDIUM PUMP  
80 GPM @ 100 FT. TDH.  
90 H.P. MOTOR

P-811  
HEAT MEDIUM PUMP  
80 GPM @ 100 FT. TDH.  
90 H.P. MOTOR

FUEL GAS SUPPLY

70-A-3



(P)	PRESSURE POINT, 1/2" DIA. OF PIPE	(V)	VALVE
(T)	TEMPERATURE POINT, 1/2" DIA. OF PIPE	(S)	SOLE NO. VALVE
(L)	LEVEL POINT, 1" DIA. (BY 1/2" DIA. PIPE)	(E)	SOLE NO. VALVE
(F)	FLOW POINT	(M)	SOLE NO. VALVE
(C)	CUT OFF POINT		

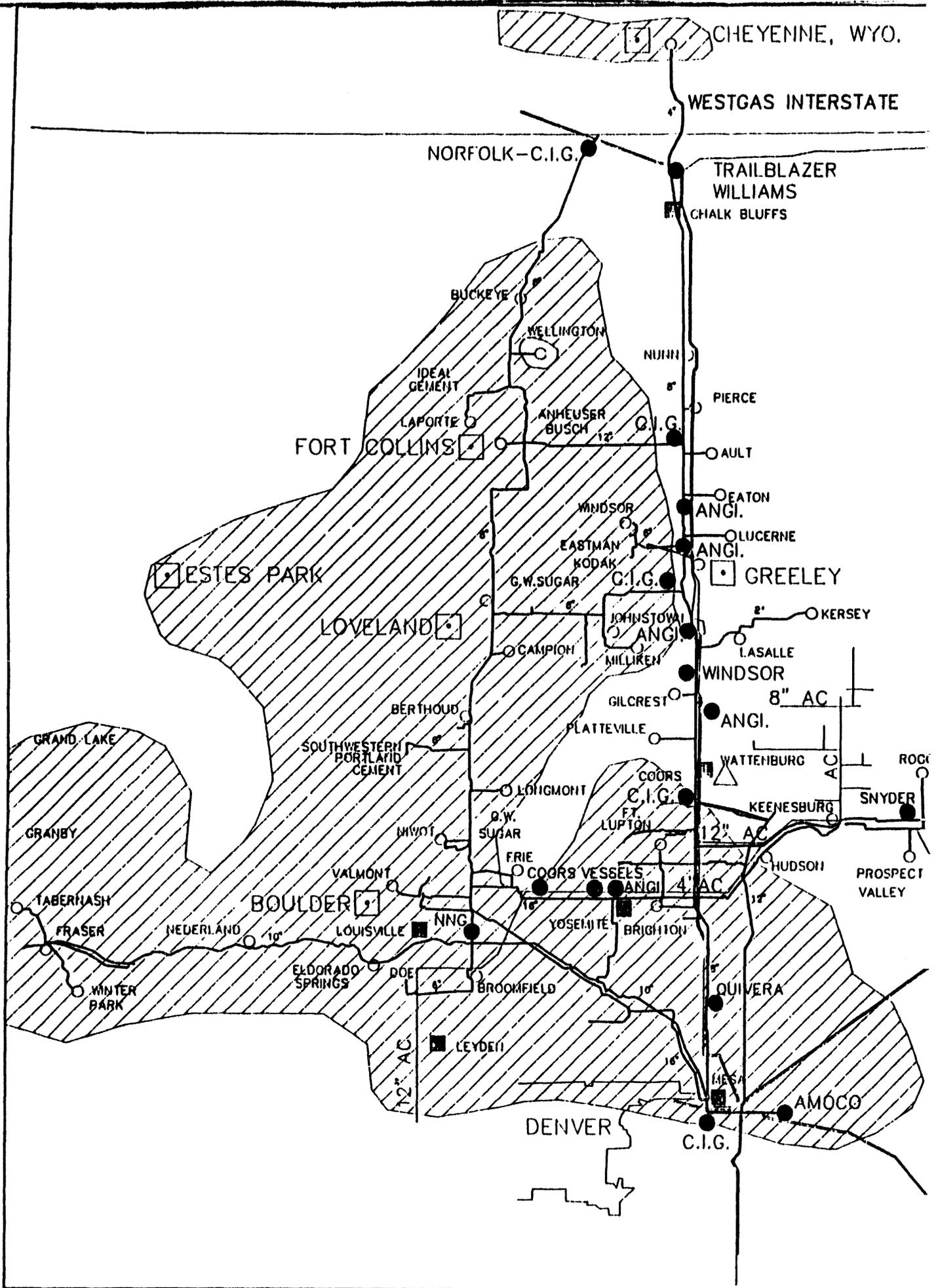
NOTE:  
1. ALL CLASS "Y" GAS AND LIQUID PIPING TO BE PERM. INSULATED.  
2. OFF-SITE REPRESENTATION AND BLOCK VALVES SHOWN TO BE PROVIDED BY T.A. BARNELL CO., AND TO BE CONTROLLED BY OTHERS



## **APPENDIX 2**

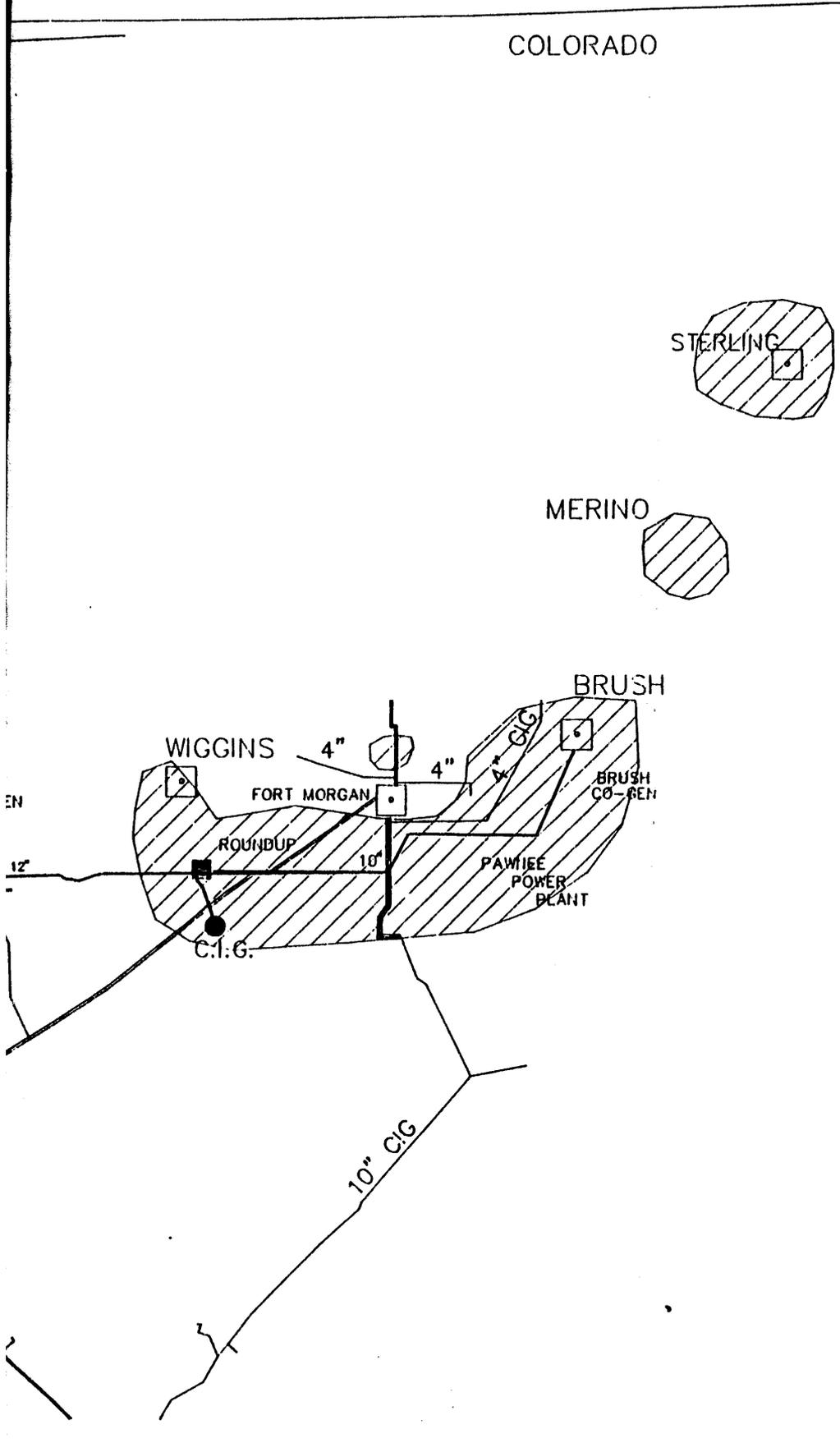
### **II. Gas Distribution Map (Figure 1)**

Figure 1: Gas distribution map of Public Service Company of Colorado.



WYOMING

COLORADO



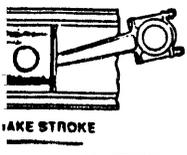
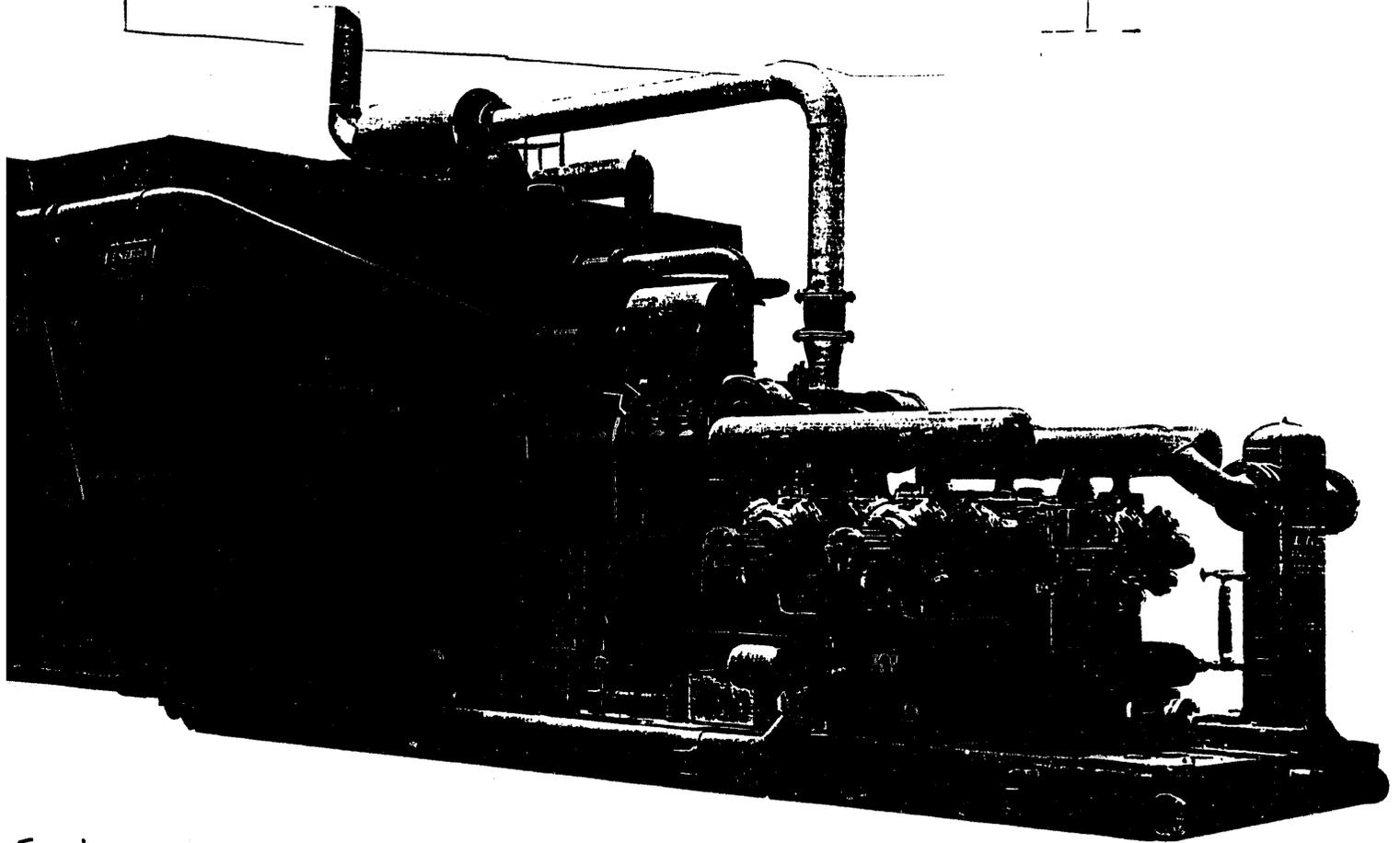
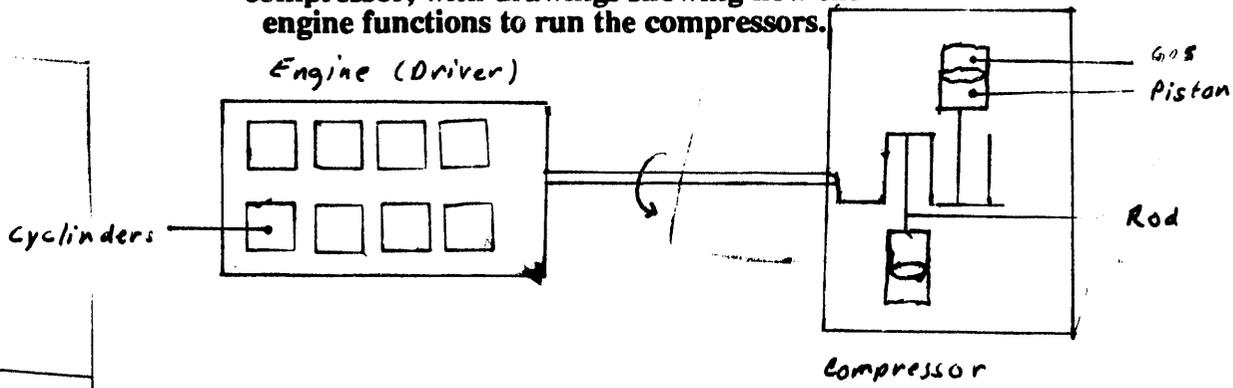
LEGEND:

- COMMUNITIES
- GASPLANTS
- COMPRESSOR
- PSCO SVC. TERR.
- SUPPLY POINTS / PIPELINE INTERCONNECTS
- CIG
- P-E/KN (HP)
- WGS
- AC

WESTERN GAS SUPPLY CO.  
 NORTHEAST COLORADO  
 FACILITY MAP

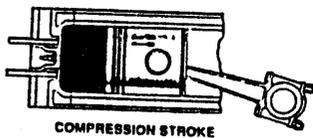


**Figure 2: Picture of one type of a fully assembled compressor, with drawings showing how the engine functions to run the compressors.**



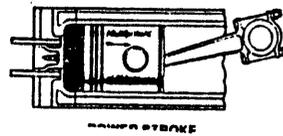
Step 1

Gas and Air enter the cylinders of engine.



Step 2

Gas and Air are compressed by pistons.



Step 3

Power is created which moves the rods attached to pistons in compressor.



Step 4

Gas and Air exits the cylinder as carbon dioxide and water.

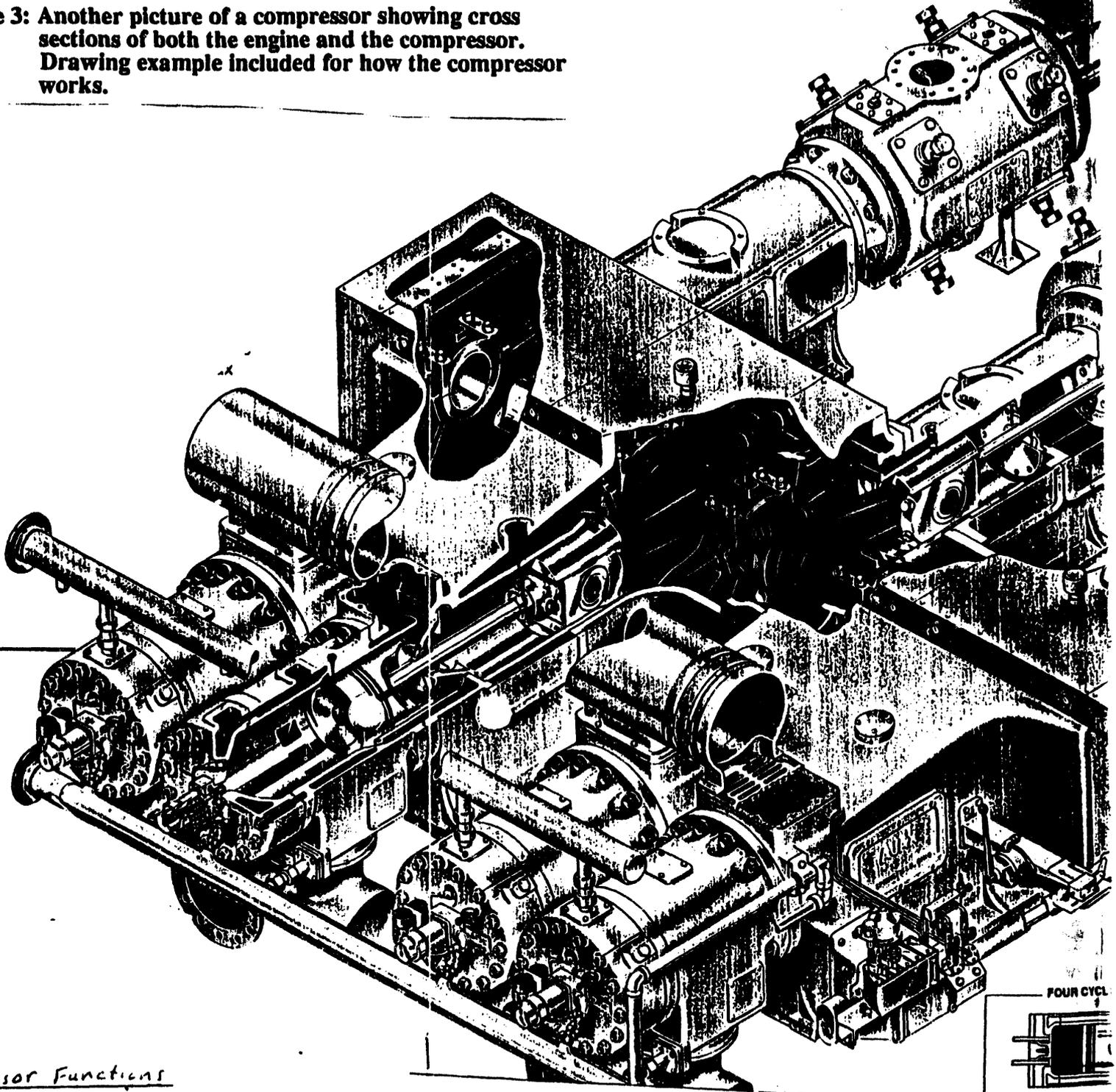
## **APPENDIX 3**

### **III. Picture of Compressor with Drawing of Engine Function (Figure 2)**

## **APPENDIX 4**

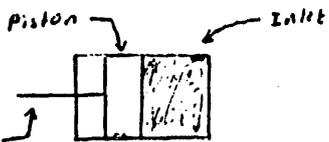
- IV. Picture of Cross-Section of Compressor with Drawing of Compressor Functions  
(Figure 3)**

**Figure 3: Another picture of a compressor showing cross sections of both the engine and the compressor. Drawing example included for how the compressor works.**



Compressor Functions

1: 50 pounds of pressure comes into the inlet.



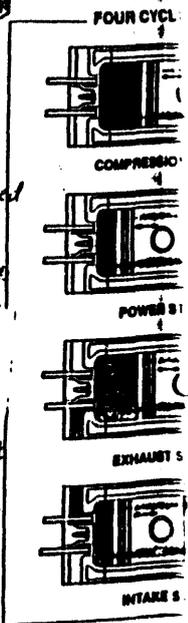
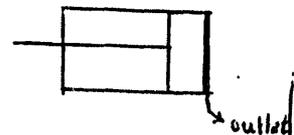
step 2: As gas is coming through inlet, piston is moved backward.

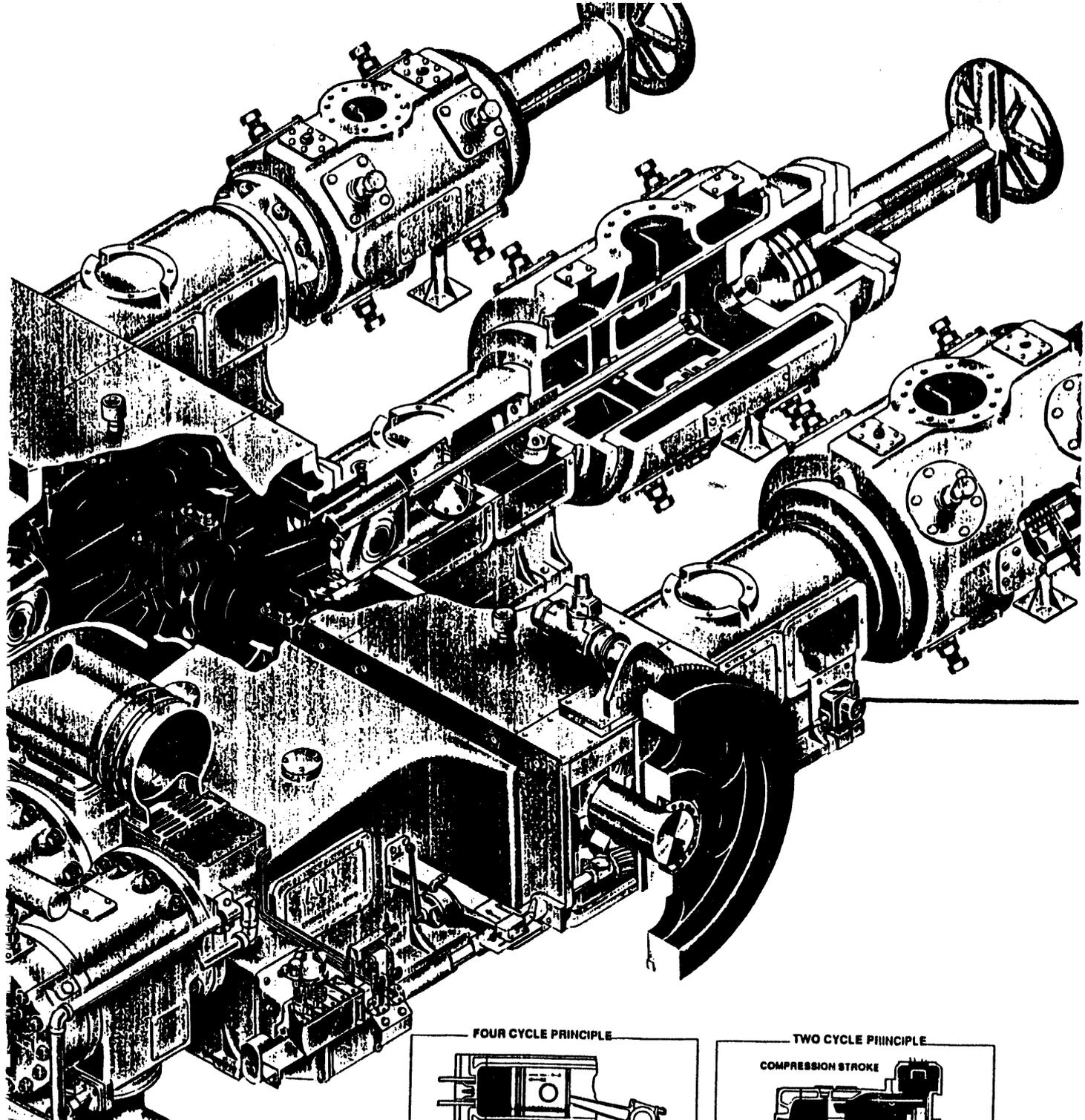


step 3: The rod pushes the piston which is powered by the engine.



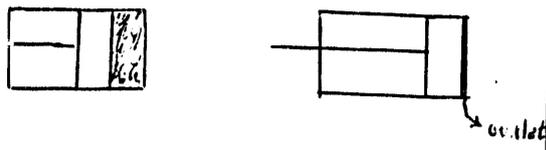
step 4: Gas is compressed to 100 pounds and released through the pipeline. Process starts all over again.



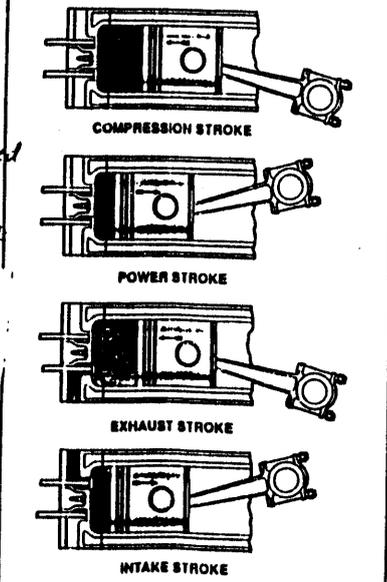


The rod pushes piston which is forced by the engine.

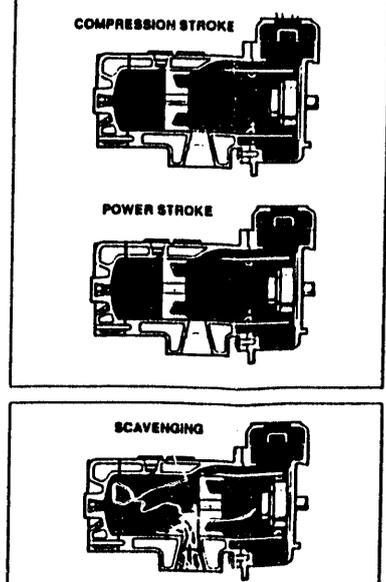
STEP 4: Gas is compressed to 100 pounds and released through the pipeline. Process starts all over again.



**FOUR CYCLE PRINCIPLE**



**TWO CYCLE PRINCIPLE**



Four cycle vs. two cycle operation

## **APPENDIX 5**

### **V. Tie-In Procedure**

### **Prior to Tie-In**

**Contact Load Control 48 hours prior to Tie-In, Tie-In takes place Tuesday, August 2**

**Contact Public Gas Distribution, talk with Jeff Trujillo 48 hours prior to Tie-In, Tie-In takes place Tuesday, August 2.**

**Contact Del Montoya out at Lyden 48 hours prior to Tie-In which is on Tuesday, August 2.**

### **Tie-In Day**

**Thursday, July 29 Campion Crew to be at project site at 7:00am to put in 2" service valve for pipe servicing Mansville plant.**

**Tuesday, August 2 Campion Crew to be at project site by 7:00am to instal stopple equipment on 16" pipe. Before setting the stopple plug notify Load Control, create new gas flow route from the 2" service valve to the stopple equipment using flexhoses for this part to feed gas to the Mansville plant.**

**After completion of stopple contact Public Service Distribution and Load Control, to notify closing of the existing 2" valve on the Mansville service pipeline.**

**Verify Valve A is open.**

**Verify that valve B is closed.**

**Verify that valve C is closed.**

**Verify valve D is closed (stopples).**

**Verify that valve E is open, which is the 10" suction header valve.**

**Remove 2" plug from suction scrubber, then open valve F to blowdown through suction scrubber. After blowdown have operations verify the blowdown area with MSA.**

**Verify that the stopple plug is still set after blowdown of the pipeline is complete.**

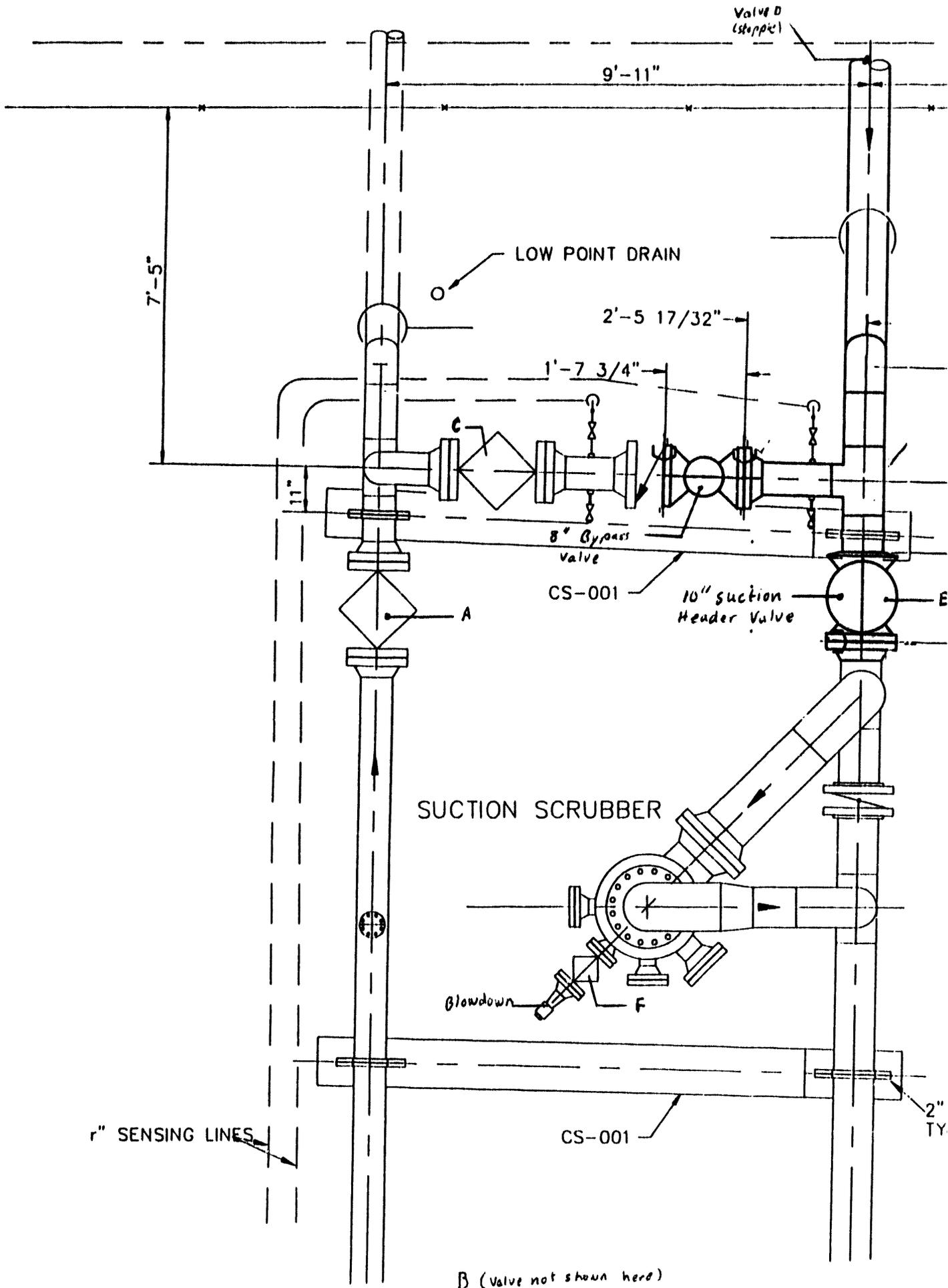
**Begin dismantling and replacing material under construction.**

**Notify Gas Distribution and Load Control after completion of project.**

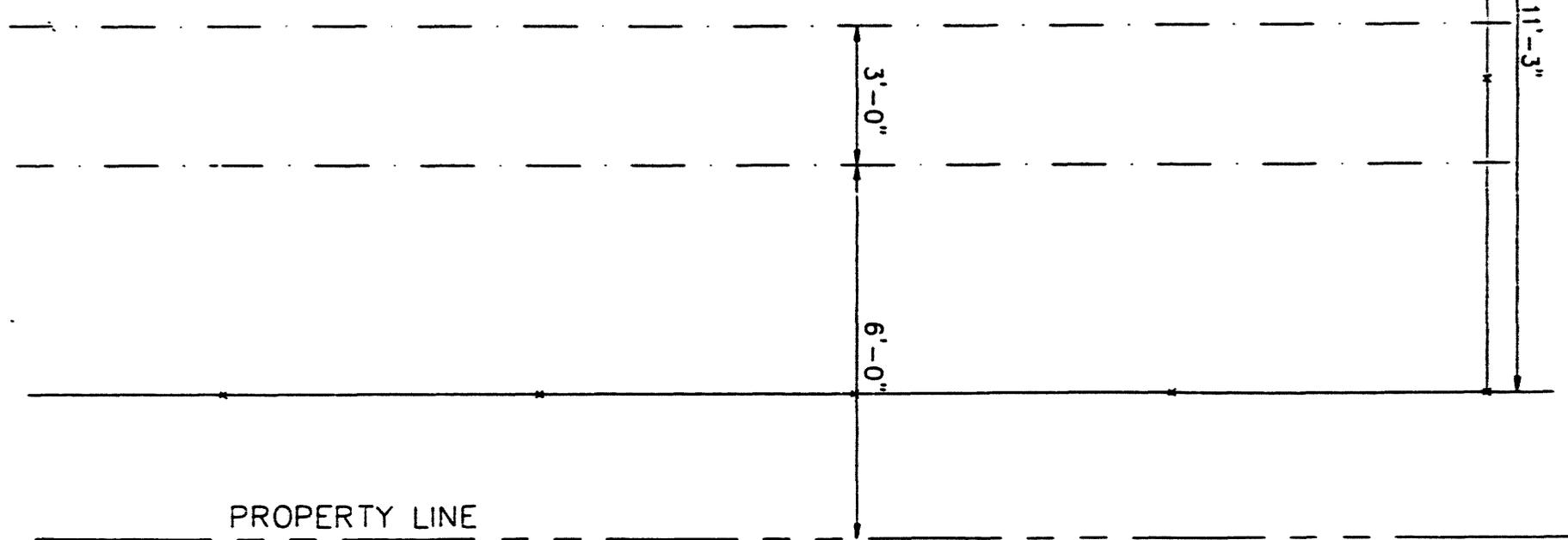
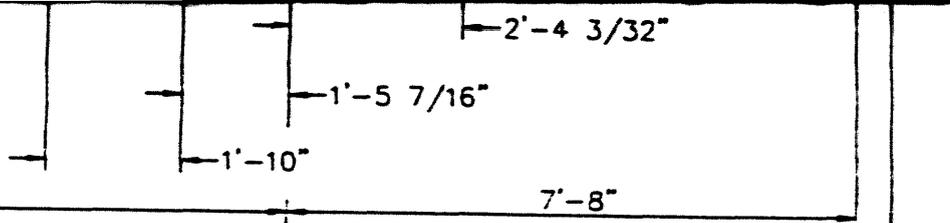
## **APPENDIX 6**

**Drafting Sketch of Project Work to be done at Deer Creek Compressor Station  
(Figure 4)**

N



3 x 3/16" STRAP  
ALL CLAMPS



DWG #

 WESTGAS GATHERING

DEER CREEK COMPRESSOR STATION  
VALVE SET REVAMP

DATE: 7-9-93

GWA#

SCALE: 3/8"=1'-0"

DRAWN BY:	DATE	REVISIONS	DATE
C.B. BROOKS			
CHECKED BY:			
APPROVED BY:			

DWG

## **APPENDIX 7**

**Calculations for the 8" and 10" Pipes at Deer Creek Compressor Station**





## **APPENDIX 8**

**Paper Work for Deer Creek Compressor Project**

**GAS WORK AUTHORIZATION - Production, Gathering, U.G. Storage, Transmission**

ST COMPONENTS	SUF	ESTIMATE	APPROP. NUMBER	932906	CODES	ACCT. NO.	5-11 11-59589			
INSTRUCTION	01	37,000	APPROP. CODE	<del>6x932906</del> 932905-208	OH -	31	LOCATION 18-22 43005			
MOVEMENT COST	02		DEPT. ASSIGNED	Process Engineering	OFF -	L	PLT. ACCT. 28-32 <del>X1368</del> 1377			
SAVING CREDIT	03	( )	DIVISION NAME	Eastern-Leyden	FCN -	DR	DATE NO. ISSUED 7-30-93			
OTHER CREDIT	04	( )	CITY OR TOWN	Denver	CSN -	CR				
ESTIMATED COST		37,000	LOCATION NAME					Deercreek Compressor Station		
INSTR. TO CONFORM TO D.O.T. CODE WITH B31.8 AS GUIDE					PLAT NO.	SEC.	TWP.	RGE.	TAP NO.	WELL NO.
TITLE					358-423	4	69W	6W		
OPERATE THE SUCTION HEADER AT THE DEERCREEK COMPRESSOR STATION								LOC. 18-22	P.A. 28-32	69-70 E80

\* LIST INSTRUMENT SERIAL NUMBER \*\* INDICATE SALVAGE DISPOSITION: S = STOCKED, R = REUSED, J = JUNKED

QTY	DESCRIPTION SIZE OR DIMENSIONS	CONSTRUCTION			RETIREMENT (33-34) Year Removed - Source 2						S * A L V A G E	
		SERIAL * NUMBER STA. NO.	QUANTITY	ESTIMATED COST	YR. INST. 35-36	SERIAL * NUMBER 38-45	UNIT CODE 54-57	QUANTITY x68	BOOK COST x79	B80		
	BUILDING											
	BUILDING FDN. CC						05819					
	CASING	IN										
	MAIN CW	IN										
	MAIN CW	IN										
	VALVE SET	IN										
68	VALVE	10 IN	1	5,000 00								
68	VALVE	8 IN	1	4,000 00								
	MAIN LINE CONN AT						41709					
	CONTROLLER, DIFF LIMIT						18809					
	GAUGE, VOL. & PRESS											
	HEATER											
	HOUSING											
	METER											
	METER, ORIFICE											
68	PIPING, STATION		1 lot	28,000 00			59009					
	PIPING, ORIF TUBE	IN					59189					
	REGULATOR	IN										
	REGULATOR	IN										
	THERMOM. RECG.											
	VALVE, RELIEF	IN										
	DEHYDRATOR											
	DEHYDRATOR FDN CC						23509					
	PIPING, STATION						59009					
	PUMP, METHANOL						60779					
	SEPARATOR						80359					
	VALVE											

DESCRIPTION OF ASSOCIATED OPERATION AND MAINTENANCE WORK

CONTROLLED	RES	CHRG

FOR	DATE	APPROVAL	DATE	PROP. ACCTG.	DATE
Mark D. Schymann	7/30/93				
		APPROVAL		EXECUTED BY	
		APPROVAL		FIELD CHECKED	C/O APPR.
		APPROVAL		DATE START	DATE COMP.

City Denver		DETAILED ESTIMATE OF CONSTRUCTION WORK							Sheet 1 of 1				
County Jefferson		(Attach Significant Estimating Assumptions)							Appro./Budget Item No.				
Division Central		Description of Work							Job Order No.				
Location Deer Creek Compressor Station		Replace existing fire valve and put another valve at the bypass							R-Code No.				
Loc. Code									Dept. Assigned to				
Quantity and Unit Size	CONSTRUCTION WORK Name and Description of Property Units Include Plant Account Number	Purchase Including Freight	Contract Work	Other Costs	Stock Including Expense	Company Payroll	Labor Loadings	Trans.	E and S CPR	Insur. P and B	Interest During Const.	TOTAL COSTS	Man Hours
1 10"	10" ANSI 300 Trunnion Ball Valve Weld x Flange with gear operator	\$6,025					\$1,627					\$7,652	
1 10"x 8"	10" ANSI 300 Tee with 8" Branch with .219 wall	\$393					\$107					\$500	
1 10"	10" Stoppal	\$4,200					\$1,134					\$5,334	
1 8"	8" ANSI 300 Trunnion Ball Valve Flange x Flange with gear operator	\$4,800					\$1,296					\$6,096	
2 8"	8" ANSI 300 Flange	\$244					\$66					\$310	
	Stoppal Crew					\$960	\$413					\$1,373	
	Contractor Labor		\$3,600				\$972					\$4,572	
	Contractor Equipment		\$1,425				\$385					\$1,810	
1 lot	Misc. Pipe & Fittings	\$5,000					\$1,350					\$7,150	
	AFDC (1%)										\$348	\$348	
Total Construction Work-->		\$20,662	\$5,025	\$0	\$0	\$960	\$7,350	\$0	\$0	\$0	\$348	\$35,145	
Other Costs							Summary						
Board and Lodging		Special Engineering Services					Cost of Construction		\$35,145				
Tools and Equipment							Cost of Removal						
Permits; Paving Repair							Salvage						
		Other Costs Total					Other Credits						
Est. By Clarence N. Garcia		Date 7/14/93		Orig. Budget. Amount			Total Expended		\$35,145				

## NECESSITY & BENEFITS

This Gas Work Authorization is being submitted to install one 8" valve and replace an existing 10" valve at the Deer Creek Compressor Station.

The reason for this project is to meet with the Department of Transportation (DOT) code requirement to inspect check valves on an annual basis. It will also insure a safer working condition at the compressor station because the existing 10" suction valve leaks and can not obtain 100% shut off.

It is proposed that the 10" valve be replaced with another valve and that a 8" valve be installed in the bypass to isolate the check valve. The completion of this project will allow inspection of the check valve and thus allow us to comply with DOT Code.

The approval of this GWA will allow construction to begin immediately. An uprate of the discharge line is scheduled for early September and it is desirable to have this completed prior to the uprate. This job cannot be completed in the winter due to load requirements of the system.

The proposed project cost is \$37,000. The 1993 Transmission Routine Budget includes \$1,490,000. To date \$452,743 has been spent or approved for job orders in routing.

SELLER NO. **71458** SELLER NAME & ADDRESS  
**Pipe Valve and Fitting Co**  
**2505 E. 79th Ave**  
**Denver, Colorado 80217**

PURCHASE ORDER NO.  
**25003**  
 ASSIGNED BY PURCHASING:  
 DATE WRITTEN  
**7-21-93**

**H 3366**  
 DO NOT TRANSMIT TO SELLER  
 PUBLIC SERVICE COMPANY OF COLORADO  
**SUBSIDIARY COMPANY**  
 OR **NGG**

STORERM **380** DATE WANTED **7-23-93** **SHIP TO** **15995 West Ave. Golden, CO - 80401-** MBR CODE

1.  SP/FA SHIPPING POINT (CITY & STATE) SHIP VIA **Denver Colorado Seller** TOTAL EST. WEIGHT  
 2.  COLLECT  
 3.  DESTINATION

ITEM NUMBER OR MMD ID NO.	QUANTITY/UM	COMPLETE DESCRIPTION OF MATERIAL OR SERVICES	ESTIMATED UNIT PRICE	ACTUAL UNIT PRICE	AMOUNT
1	1	10" x 8" Reducing Tee, <b>WELD, STD BORE</b>		132.60	132.60
2	1	8" WNRF Flange, ANSI 300 STD Bore		56.80	56.80
<del>3</del>	<del>1</del>	<del>10" pipe, .250 wall, SMCS, Grade B standard</del>			
<del>4</del>	<del>1</del>	<del>8" Insulating Tee, ANSI 300</del>			
5	2	8" Gasket, ring type, ANSI 300		5.41	5.41
6	2	10" 45" ell, std. wall		56.40	56.40
7	20ft.	10" pipe, with .365 wall, <b>SMCS, Grade B standard</b>		18.89	377.80
<del>8</del>	<del>10ft.</del>	<del>10" pipe, .250 wall, SMCS</del>			
9	5ft.	8" pipe, .322 wall, SMCS		21.75	108.75
10	16	1" x 6" Stud Bolts w/HEX Nuts, B-7		2.39	2.39
11	12	7/8" x 5 1/4" stud Bolts w/HEX Nuts, B-7		1.52	1.52
<del>12</del>	<del>2</del>	<del>1/2" Bolt Valve, WRM, 3000#, 5620</del>			
13	2	1/2" Thread-o-let, 3000#		2.66	2.66
14	2	1/2" x 3", Nipple, XH		1.29	1.29
15	2	1/2" HEX plug, 3000#, THRD		.41	.41
16	8 Rolls	6" wide Polyken Tape		11.79	11.79

ACCOUNTS TO BE CHARGED					QUOTATION SOURCE & DATE	TOTAL
INDICATE ITEM NUMBER FROM ABOVE WHEN MORE THAN ONE ACCOUNT NUMBER IS USED						<input type="checkbox"/> ACTUAL <input checked="" type="checkbox"/> ESTIMATE
CORRESPONDING ITEM NUMBER AND/OR %	PERFORMED	CONTROLLED	RESRCE	CHRG'D	ORDER / CODE	IMCS REPORT DESCRIPTION (ONE LINE PER ACCOUNT)
	5,9,1,2	5,9,1,2	2,2	0,1	VARIOUS	PIPE, VALVES, AND F.I.E.C.

PROPOSE FOR WHICH MATERIAL WILL BE USED: **Deer Creek Compressor Station** LOCATION OF USE: **Deer Creek Compressor Station**  
 APPROVED CAPITAL BUDGET ITEM?  YES  NO  
 ORIGINATOR'S NAME (TYPE OR PRINT): **Anthony Marquez** DEPT./DIV. APPROVAL SIGNATURE (REIS): **[Signature]** EXECUTIVE APPROVAL SIGNATURE: **[Signature]**  
 ACCOUNT APPROVAL: PURCHASING APPROVAL BUYER TRAFFIC INS.  
 TELEPHONE NO. **572-4257** DATE **7/22/93** DATE

IMPORTANT NOTE: PURCHASE REQUISITIONS MUST NOT BE MADE UNLESS IT HAS BEEN DETERMINED THAT SUPPLIES WANTED ARE NOT IN STOCK AT ANY WAREHOUSE THIS REQUISITION MUST BE SIGNED BY THE PERSON(S) AUTHORIZED IN ACCORDANCE WITH GI-140

ORIGINATOR: RETAIN THIS COPY FOR YOUR FILE



**REPORT OF CONTRACT LABOR, EQUIPMENT, AND MATERIAL**  
Detail for Time and Material Contract or Extra Work Authorization

Report No. \_\_\_\_\_

5	9	1	2	5	9	1	2	1	9	0	1	J	1	1	5	9	5	8	9
PERFORMED	CONTROLLED	RESRC	CHRG	ORDER / CODE															

CONTRACTOR <b>MAYO WELDING SERVICE, INC.</b>				DATE THIS REPORT <b>8 / 6 / 93</b>				EXTRA WORK AUTH. NO.			
PROJECT <b>16" &amp; 10" SUB. HEADER REVAMP</b>				PERIOD COVERED				PURCHASE ORDER NO.			
LOCATION <b>DEER CREEK COMPRESSOR STATION</b>				FROM <b>8 / 2 / 93</b>		THRU <b>8 / 6 / 93</b>		DOCUMENT NO. <b>1</b>			

EMPLOYEE - NAME	CLASS	DATE							TOTAL HOURS	RATE	LABOR COST	
		DAY	MON	TUE	WED	THUR	FRI	SAT			SUN	
LARRY MAYO	F	ST 8	5	8	8	8	8	8	3	29.92	1555	84
DAVID MAYO	W	ST OT	5	8	8	8	4	-	-	28.00	840	00
DOUG MATTI	W-H	ST OT	5	8	8	8	4	-	-	22.00	660	00
RANDY ADAMS	L	ST OT	5	8	8	8	8	8	8	20.00	1,040	00
		*										
		*										
		*										
		*										
<b>TOTAL LABOR COST</b>	**	*								**	<b>4095</b>	<b>84</b>

EQUIPMENT USED	DATE							TOTAL HOURS	RATE	EQUIPMENT COST	
	DAY	MON	TUE	WED	THUR	FRI	SAT			SUN	
WELDING RIG (DAVID MAYO RIG)		5	-	12	-	-		17	26.00 HR	442	00
1-TON TOOL TRUCK		1 DAY		5 DAYS	130.00 DAY	650	00				
2-TON TRUCK TRACTOR, FIATUED		-	-	-	-	8		8	17.50 HR	140	00
EQUIPMENT TRAILER						1 DAY		1-DAY	75.00 DAY	75	00
RUBBER TIRE RACK - HCL		1 DAY		5 DAYS	260.00 DAY	1,300	00				
20' FLAT BED TRAILER		-	1-DAY	-	-	-		1-DAY	65.00 DAY	65	00
WELDING RIG (LARRY MAYO RIG)		-	-	12	11	-		23	26.00 HR	598	00
<b>TOTAL EQUIPMENT COST</b>									**	<b>3270</b>	<b>00</b>

Material Furnished by Contractor - Attach Invoices to White Copy of This Report

BOUGHT FROM	QUANTITY AND DESCRIPTION	MATERIAL COST
<b>TOTAL MATERIAL COST</b>	*	*

SUMMARY OF COSTS

DESCRIPTION OF WORK	TOTAL LABOR COST	TOTAL EQUIPMENT COST	TOTAL MATERIAL COST	TOTAL COST

This report is to be made out in quadruplicate by authorized Company Representative and verified by authorized Contractor Representative.

PUBLIC SERVICE NATURAL GAS GROUP  
~~WESTERN GAS SUPPLY COMPANY~~

By Larry Mayo (CONTRACTOR)  
By Rich Hall (AUTHORIZED REPRESENTATIVE)

By \_\_\_\_\_ (AUTHORIZED REPRESENTATIVE)

**REPORT OF CONTRACT LABOR, EQUIPMENT, AND MATERIAL**

Detail for Time and Material Contract or Extra Work Authorization

5,9,1,2 5,9,1,2 1,9,0,1 J,1,1,5,9,8,9  
 PERFORMED CONTROLLED RESRC CHRG ORDER / CODE

Report No. \_\_\_\_\_

CONTRACTOR <b>MAYO WELDING SERVICE, INC.</b>		DATE THIS REPORT <b>7/30/93</b>	EXTRA WORK AUTH. NO.
PROJECT <b>16" &amp; 10" SUG. HEADER RCVAMP</b>		PERIOD COVERED	
LOCATION <b>DEER CREEK COMPRESSOR STATION</b>		FROM <b>7/26/93</b>	THRU <b>7/30/93</b>
		PURCHASE ORDER NO.	
		DOCUMENT NO.	

EMPLOYEE - NAME	CLASS	DATE	7/26	7/27	7/28	7/29	7/30	TOTAL HOURS	RATE	LABOR COST
			DAY	MON	TUE	WED	THUR			
LARRY MAYO	F	ST OT	8 3	8 3	8 3	8 3	8 3	4 15	29.92	1,170.00
DAVID MAYO	W	ST OT	8 3	8 3	8 3	8 3	8 1	40 15	28.00	1,120.00
DOUG MATTI	W-H	ST OT	8 3	8 3	8 3	8 3	8 1	40 15	22.00	1,309.00
RANDY ADAMS	L	ST OT	8 3	8 3	8 3	8 3	8 3	40 15	20.00	1,250.00
		*								
		*								
		*								
		*								
TOTAL LABOR COST	**	*							**	6,095.00

EQUIPMENT USED	DATE	7/26	7/27	7/28	7/29	7/30	TOTAL HOURS	RATE	EQUIPMENT COST	
		DAY	MON	TUE	WED	THUR				FRI
WELDING RIG			11	11	11	11	9	53	26.00 HR	1,378.00
1-TON TOOL TRUCK			1-DAY	1-DAY	1-DAY	1-DAY	1-DAY	5 DAYS	130.00 DAY	650.00
2-TON TRUCK TRACTOR, FLATBED			11	-	-	-	-	11	17.50 HR	192.50
EQUIPMENT TRAILER			1-DAY	-	-	-	-	1-DAY	75.00 DAY	75.00
RUBBER TIRE BACK-HOE			1-DAY	1-DAY	1-DAY	1-DAY	1-DAY	5 DAYS	260.00 DAY	1,300.00
TOTAL EQUIPMENT COST									**	3,595.50

Material Furnished by Contractor - Attach Invoices to White Copy of This Report

BOUGHT FROM	QUANTITY AND DESCRIPTION	MATERIAL COST
TOTAL MATERIAL COST	* * *	

**SUMMARY OF COSTS**

DESCRIPTION OF WORK	TOTAL LABOR COST	TOTAL EQUIPMENT COST	TOTAL MATERIAL COST	TOTAL COST
FABRICATION OF NEW SUCTION HEADER	6,095.00	3,595.50		9,690.50
EXCAVATION OF 11" DIAMETER REMOVAL OF FENCE				

This report is to be made out in quadruplicate by authorized Company Representative and verified by authorized Contractor Representative.

By Larry Mayo  
 (CONTRACTOR)

**PUBLIC SERVICE NATURAL GAS GROUP**  
**WESTERN GAS SUPPLY COMPANY**  
 By \_\_\_\_\_  
 (AUTHORIZED REPRESENTATIVE)

**DISTRIBUTION:**

**WHITE** - Company Office  
**PINK** - Company Representative

**YELLOW** - Contractor's Office  
**GOLDENROD** - Contractor's Representative

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**REPORT OF CONTRACT LABOR, EQUIPMENT, AND MATERIAL**  
Detail for Time and Material Contract or Extra Work Authorization

59.12	59.12	1901	111159589
PERFORMED	CONTROLLED	RESRC	CHRG
ORDER / CODE			

Report No. \_\_\_\_\_

CONTRACTOR	DATE THIS REPORT	8/6/93	EXTRA WORK AUTH. NO.
PROJECT	PERIOD COVERED		PURCHASE ORDER NO.
LOCATION	FROM	THRU	DOCUMENT NO.
VEER CREEK COMP. STA.	8/2/93	8/6/93	

EMPLOYEE - NAME	CLASS	DATE							TOTAL HOURS	RATE	LABOR COST
		DAY	MON	TUE	WED	THUR	FRI	SAT			
		*									
		*									
		*									
		*									
		*									
		*									
		*									
		*									
		*									
		*									
TOTAL LABOR COST	**	*								**	

EQUIPMENT USED	DATE							TOTAL HOURS	RATE	EQUIPMENT COST
	DAY	MON	TUE	WED	THUR	FRI	SAT			
16" REVELING MACHINE									190.00	190.00
10" REVELING MACHINE									100.00	100.00
8" REVELING MACHINE									30.00	30.00
16" LINEUP CLAMPS									42.50	42.50
10" LINEUP CLAMPS									32.00	32.00
8" LINEUP CLAMPS									27.50	27.50
NITROGEN									241.50	241.50
RECORDER (chart)									232.00	232.00
TOTAL EQUIPMENT COST									**	945.55

Material Furnished by Contractor - Attach Invoices to White Copy of This Report

BOUGHT FROM	QUANTITY AND DESCRIPTION	MATERIAL COST
<del>GRANITE</del>	SACKRET	18 90
<del>ROCK</del> COLLINS CASHWAY LUMBER	POSTMIX	4 20
<del>PAINT</del>	PAINT	27 30
TOTAL MATERIAL COST	* * *	50 40

**SUMMARY OF COSTS**

DESCRIPTION OF WORK	TOTAL LABOR COST	TOTAL EQUIPMENT COST	TOTAL MATERIAL COST	TOTAL COST
FABRICATION AND INSTALLATION OF SUCTION HEADER	4095 84	4215 55	50 40	8360 79
CLEAN-UP of site				

This report is to be made out in quadruplicate by authorized Company Representative and verified by authorized Contractor Representative.

By Larry Meyer (CONTRACTOR)  
Maio Working Service  
 By [Signature] (AUTHORIZED REPRESENTATIVE)

**TUBLIC SERVICE NATURAL GAS GROUP**  
**WESTERN GAS SUPPLY COMPANY**  
 By \_\_\_\_\_ (AUTHORIZED REPRESENTATIVE)

**COUNCIL OF ENERGY RESOURCE TRIBES**

**OFFICE OF THE NUCLEAR WASTE NEGOTIATOR**

**1993 SUMMER INTERNSHIP PROGRAM**

**TRACEY A. LEBEAU, INTERN**

- **PERSONAL STATEMENT**
- **REPORT**

## **Tracey A. LeBeau**

---

Tracey A. LeBeau is an enrolled member of the Cheyenne River Sioux Tribe, a Council of Energy Resource Tribes' member Tribe. Tracey will begin her final year in law school at the University of Iowa College of Law, specializing in hazardous waste law. Tracey received her B.A. from Stanford University and received her high school diploma from Northfield Mount Hermon School.

Tracey has expressed her commitment to serving Indian Tribes and has done so throughout her academic career by serving as Chairwoman of the Indian student organizations at both Stanford University and University of Iowa. She has been a member of the American Indian Science and Engineering Society (AISES) and the National Indian Education Association (NIEA) since she entered college. Tracey has tutored for the American Indian Summer Law Institute, worked at the Council of Energy Resource Tribes on a Xerox Foundation Leadership Fellowship, at the Cheyenne River Sioux Community College on a Stanford Public Service Fellowship, at Americans for Indian Opportunity, and at the American Indian National Bank. She hopes to continue to serve Indian Tribes in the future and ensure that they can meet the future on their own terms.

**COUNCIL OF ENERGY RESOURCES TRIBES**

**1993 SUMMER INTERNSHIP REPORT**

**OFFICE OF THE NUCLEAR WASTE NEGOTIATOR**

**Prepared by**  
**TRACEY A. LEBEAU**

**Intern**

**August 1993**

**Council of Energy Resource Tribes**  
**1999 Broadway, Suite 2600**  
**Denver, CO 80202-5726**  
**Phone: (303) 297-2378**  
**Telefax: 303/296-5690**

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NOTE: An addendum to this report, which includes the following, is available by request.

1. Letter of Accommodation of Tracey LeBeau to CERT from Mr. Robert Mussler, Office of the Nuclear Waste Negotiator.
2. Memorandum to Tracey LeBeau from Mr. Robert Mussler regarding Tracey's initial assignment and brief outline of the work expected of her throughout her 1993 summer internship.
3. Memorandum to Mr. Robert Mussler and Mr. Chuck Lempesis from Tracey LeBeau -- Potential Fiduciary Claims Against the office of the Negotiator in Dealings with Indian Tribes.
4. The Federal Contracting Process with Indian Tribes and Negotiations and Contracting Authority of the Fort McDermitt, Mescalero Apache, Goshute and Tonkawa Tribes.
5. Notes on Federal Negotiations Theory and Recommendations for Complex Multiparty Negotiations Management.

## Office of the Nuclear Waste Negotiator Internship - Summer 1993

The Office of the Nuclear Waste Negotiator, established by the 1987 amendments of the 1982 Nuclear Waste Policy Act, is an independent agency whose mission is to determine if any state or federally recognized Indian Tribe might voluntarily host a temporary storage or permanent disposal facility of commercially generated spent nuclear fuel. The Negotiator's office is committed to a process seeking willing partners to site a storage facility and a process that encourages broad public participation, a process which has been successful for many European countries. Its aim is to provide for and encourage a dynamic and flexible process to ensure long-lasting cooperation between the host community and the federal government.

Because the decision to enter into negotiations and site a nuclear waste storage facility requires a detailed study of the process and cooperation from surrounding communities, feasibility assessment grants are available to study the issues and begin intergovernmental coordination. By the end of the summer, two Indian Tribes had applied for Phase II-B funding, requesting financial assistance to begin site characterization studies, begin credible discussions about siting a monitored retrievable storage (MRS) facility, continue studying the information and issues and continue coordination with local affected communities and federal agencies. Clearly, the interest of the Negotiator and the interest of Indian Tribes to place an intern who would begin addressing the unique issues relevant to siting a facility in Indian country and the issues pertaining to siting a facility where interjurisdictional issues are so complex was both understandable and justified.

I was initially contacted by CERT's chief counsel, Mervyn Tano, regarding the possibility of working with the Office of the Nuclear Waste Negotiator's (ONWN) office in August of 1992. At that time, ONWN Chief of Staff Chuck Lempeis phoned me and inquired about my interest in the field and in working with their office. In mid-August 1992, I flew to Washington, D.C. to meet the Assistant to the Negotiator Brad Hoaglun and the office. Throughout the winter, Mr. Tano kept in touch with me about the position. In the spring of 1993, Mr. Lempeis contacted me again and asked me if I was interested in working at the ONWN and I thereafter accepted a summer position. I accepted the position because I feel that Indian Tribes have fought too long and hard to retain their inherent right to make their own decisions to be de facto denied an opportunity to study the issue and possibly site a facility due to negative feelings about nuclear power or nuclear waste disposal, charges of environmental racism or even well-intentioned attempts to thwart the process by interest groups who 'know what's best' for Indian Tribes. I have strongly maintained, as relating to Indian Tribes, that my decision to work for the ONWN was inspired by my unwavering belief in the competence and sophistication of Indian Tribes and

right of Tribes to determine for themselves what is best for them. In that vein, I have been able to assure Tribes that my placement at the ONWN was not necessarily a CERT or Tribal policy decision per se regarding nuclear energy but, more appropriately, a decision to provide support to Tribal initiative.

I was brought on board at the Nuclear Negotiator's Washington D.C. liaison office at the end of May 1993. I worked in close consultation with the Negotiator's general counsel, Mr. Robert Mussler. Besides becoming more familiar with the nuclear energy industry and the complexities of siting a MRS facility, I was able to attend meetings, participate in a group tour of the Calvert Cliff's Nuclear Power Plant and prepare legal memoranda for the Office of the Negotiator on a variety of subjects.

The following is a brief description of the issues I addressed and a major project I prepared for the Negotiator and General Counsel.

**1. The Potential Fiduciary Obligations Owed by the Office of the Negotiator to American Indian Tribes and Possible Conflict of Interest Issues.**

I canvassed all the cases and commentary regarding trust doctrine and litigation involving federal executives, including but not limited to cases involving breach of trust, breach of duty of loyalty, and proprietarial and non-proprietarial duties owed to Indian Tribes.

I prepared a memo on the history of the trust doctrine in federal Indian law, how it has been applied to the federal executive branch and the sources and scope of trust duties owed by federal executives. I then reviewed cases where conflicting interests within federal agencies became an issue and how they were resolved. I outlined the traditional construction of statutes pertaining to Indian Tribes and affecting Indian affairs, the standard of review of executive actions, and the requirements for establishing a prima facie case for a breach of trust suit. Finally, I analyzed the potential and possible effects of a conflict of interest suit against the Office of the Negotiator.

**2. The Contracting Process Involving Indian Tribes, Tribal Authority to Contract and a Review of the Constitutions, By-Laws and Corporate Charters of Interested Indian Tribes.**

I outlined the requirement of, and the standards for, Department of the Interior approval power over contracts by or with Indian Tribes affecting Tribal property. I then reviewed the constitutionally delegated authority to negotiate and to contract of the Indian Tribes that have applied for siting feasibility grants, analyzing their respective traditional governments, Tribal constitutions, by-laws and/or corporate charters.

Presumably, this memo would provide a clearer understanding of who is legally authorized to enter into negotiations for the Tribe, who can ratify and legally authorize a siting agreement and a review of the legal requirements for approval of an agreement and the process for acquiring federal approval.

**3. Draft of Siting Negotiation Management Procedures for the ONWN and Communities Potentially Interested in Siting a Monitored Retrievable Storage (MRS) Facility.**

I drafted initial management procedures focusing on complex multi-party siting negotiations. Specifically, my project addresses: facilitating the development of negotiations strategy, the need for training parties in negotiations relations, crucial pre-negotiations communications, initial conflict assessments, information management, the scoping process, creating sub-issue working groups, managing complex multi-party negotiations, short- and long-term concerns about managing complex multi-party agreements and maintaining the integrity of third-party federal mediators/negotiators.

These procedures would begin to establish an internal infrastructure to: manage complex multi-party negotiations, provide and store technical information for the parties and for posterity, and design a process and working environment that reassured parties that their involvement, discussions and agreements would be incorporated, respected and preserved.

## MEMORANDUM

TO: Bob Mussler, Counsel  
Chuck Lempesis

FROM: Tracey A. LeBeau, ONWN/CERT Intern

DATE: June 17, 1993

RE: Potential Fiduciary Claims against the Office of the Negotiator in Dealings with Indian Tribes

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### ISSUES PRESENTED

- (1) What and who created the federal trust obligation owed to Indian Tribes and native Alaskan communities ?
- (2) What is the scope of these obligations ?
- (3) Is there a non-proprietal duty owed by the Nuclear Negotiator that could potentially pose a conflict of interest when dealing with Indian Tribes and native Alaskans ?
- (4) How would a charge of conflict of interest be interpreted and handled by the courts ?

### CONCLUSIONS

- (1) The obligation is a judicially created doctrine, later affirmed by Congress and narrowed by the courts.
- (2) The scope of these obligations was initially very broad but has been significantly narrowed through time; the scope is dependent upon construction of treaties, statutes, executive orders, regulations and history of involvement in the area.

- (3) The Nuclear Waste Policy Act of 1987 and its subsequent amendments, specifically Title IV which spells out the role and responsibilities of the Negotiator, states the Negotiator must negotiate agreements with States and/or Tribes that are both "reasonable and appropriate" indicating a bilateral agreement involving a determination of "reasonable and appropriate" by the parties involved. Reading the statute in the light of the duties required of a Negotiator, the lack of prior dealings with Tribes, and a lack of express language creating a trust, would lead to a conclusion that a general trust was not intended or created to warrant a suit or remedy.
- (4) The form of a potential suit would be breach of trust, namely, that the Negotiator breached a duty of loyalty to Indian Tribes in the negotiations process. Courts will examine if a trust was intended and established; if there was an unreasonable or arbitrary and capricious decision made; and whether there is consent to suit and damages (all involving examination of the statute, course of dealing, regulations and relevant history involving Tribes).

## DISCUSSION

### I. The Creation and Evolution of the Trust Doctrine in Indian Caselaw

Discussions of trust responsibility were incorporated in the earliest Indian law cases authored by Justice Marshall in the 1800's. The Marshall Trilogy, a set of companion cases, set much of the tone for the century of Indian caselaw that followed it.

In Johnson v. M'Intosh, 21 U.S. (8 Wheat.) 543 (1823), the high court categorized Indian land rights as "rights of occupancy" and stated that Indians be considered "[m]erely as occupants, to be protected..."

Later, in Cherokee Nation v. Georgia, 30 U.S. (5 Pet.) 1, 17 (1831), Marshall, writing for the majority, declared the relationship existing between the federal government and Indian Tribes as that "of a ward to his guardian" and categorized Indian Tribes as "domestic dependent nations." Basing their decision on convoluted legal reasoning regarding rights conferred by conquest, the court did in part address the quintessential question: What is the purpose of the Constitution's Article I, Section 8, empowering Congress to "regulate commerce with foreign nations, and among the several states, and with the Indian Tribes" ? The court characterized Indian nations as maintaining certain

sovereign attributes but Indians maintained only the right of occupancy on the land they inhabited and could not convey it through deed. Since the United States held fee simple title to those lands and the Indians are in a "state of pupillage...completely under the sovereignty and dominion of the United States", therein lies a fiduciary relationship. Assumingly, Congress recognized this concept when it passed the Commerce Clause, distinguishing Indian Tribes from foreign nations. Hence, any constitutional reference was used as evidentiary documentation of a trust relationship the government had already undertaken and the judicial branch recognized.

In the following year, in Worcester v. Georgia, 31 U.S. (6 Pet.) 515 (1832), Marshall reiterated the concept of Indian Tribes as self-governing entities and did not significantly elaborate on the trust relationship.

Much of the language in these cases were premised on the concept that Indian Tribes, much like conquered European nations, entered into treaties with the United States agreeing to ally themselves, but did not forfeit all vestiges of their sovereignty. The trust relationship, then, would be one analogous to other European conquests where a promise of allegiance entailed a duty by the conquering nation to guard against encroachments. In this respect, Marshall saw as the federal government's duty as a duty to protect Tribal autonomy. "The marshallian guardianship or trust responsibility can also be viewed as an expansive protection of the Tribe's status as a self-governing entity as well as its property rights." Chambers, Judicial Enforcement of the Federal Trust Responsibility to Indians, 27 Stanford L.Rev. 1213, 1219-20 (1975). However, the judiciary's and federal government's lack of synchronicity on the subject was evident in newly-elected President Jackson's infamous statement regarding Marshall's decision in Worcester: "John Marshall has made his decision; now let him enforce it." H. Greeley, American Conflict 106 (1884).

A rapidly evolving area of the law, the Indian trust doctrine underwent a drastic philosophical change in the late 1800's as states and Congress became concerned about Tribes exercising their sovereignty over non-Indians within Indian country. Courts began to interpret the trust doctrine as providing full "plenary" authority to the Congress to act for Indian Tribes, instead of protecting the rights of Tribes to exercise their own power. The Supreme Court used the trust doctrine to sanction statutes and governmental action which severely limited Tribal authority and dramatically expanded federal authority. See, e.g., United States v. Kagama, 118 U.S. 375 (1886) (upholding the constitutionality of the Major Crimes Act, conferring federal jurisdiction to adjudicate major crimes occurring on Indian reservations, as an exercise of congressional guardianship power);

See also, e.g., Lone Wolf v. Hitchcock, 187 U.S. 553 (1903) (establishing the "plenary power" of Congress, as guardian, to dispose of Indian land).

Litigation throughout the 1900's has reconsidered the concept of trust responsibility. There has been no argument a trust responsibility exists, but litigation has strove to determine the scope and limits of that responsibility, with very differing approaches and conclusions as courts and agencies have accepted the concept, but given little thought to its origins. It has created an area of law which begs the question of whether its become a case of the tail wagging the dog -- many courts have premised their presumption of duty on a history of federal involvement in an area of Indian affairs, and the federal government has premised their ongoing involvement on a presumption of judicially-established fiduciary duty. In many instances, agencies have acted, and Tribes acquiesced, without relevant authorizing legislation. Then, due to the history of regulation in the area, courts have found the establishment of a trust. But in general, where there is specific legislation, or history of federal involvement and/or oversight, courts have been willing to infer a fiduciary duty, much like that owed by a private fiduciary to its beneficiary.

## **II. The Trust Duty First Applied to Federal Executive Branch**

The doctrine was first applied to federal executives in Lane v. Pueblo of Santa Clara, where the Supreme Court found federal executive action in violation of ordinary fiduciary standards when the Secretary of Interior, under general public land laws, disposed of Tribal lands, stating the action "[w]ould not be an exercise of guardianship but an act of confiscation." 249 U.S. 110, 113 (1919). Later in United States v. Creek Nation, the Court found that in addition to constitutional limitations on Congressional power to implement trust duty, the guardianship "power to control and manage" is also "subject to limitations inhering in such a guardianship." 295 U.S. 103, 110 (1935). However, the courts had not substantively defined the scope or the limits on the duty.

## **III. Pinpointing the Source & Responsibilities of the Trust Duty**

"The federal trust responsibility imposes strict fiduciary standards on the conduct of executive agencies -- unless, of course, Congress has expressly authorized a deviation from these standards in exercise of its 'plenary power.' Since the trust obligations are binding on the United States; the standards of conduct would seem to govern all

executive departments that may deal with Indians, not just those such as the Bureau of Indian Affairs..." F. Cohen, Handbook of Federal Indian Law 225 (1982).

The caselaw that has evolved over the past fifty years has been based, part and parcel, on trust law, statutory language, course of dealings, federal involvement and from a sense of moral duty owed to Indians. The trust litigation that has ensued, and flourished, in the past fifty years initially would not limit the bases of trust obligation on statutory reference but would serve to throw open wide the windows for Tribes to claim breach of trust.

In Seminole Nation v. United States, 316 U.S. 286, 297 (1942), the court characterized the trust relationship as imposing "moral obligations of the highest responsibility and trust"...that should "be judged by the most exacting fiduciary standards."

Fourteen years later, the court in Navajo Tribe v. United States, 364 F.2d 320, 322 (Ct. Cl. 1966), held the government in breach of trust for arranging assignment of a helium lease it supervised for the Tribe for nominal consideration reasoning that the government's supervision of oil and gas leases on Tribal property established at least a "special duty of care regarding the property." The Bureau of Mines, eager to develop a helium plant because of war-time need, feared turning the lease over to the Tribe and then obtaining a lease from the Tribe would lead to "complications." Id. at 323. Although the court felt the United States could be a technical trustee, it felt comfortable relying on a broad view of both the sources and scope of the government's duties.

The court in Coast Indian Community v. United States, 550 F.2d 639 (Ct. Cl. 1977), also willing to infer a trust duty, held the government liable for breach of trust in granting a county a right of way. Although an explicit statute was involved in this case, the court never referred to it. Instead, it relied on the trust status of the land and a provision authorizing the Secretary to grant rights of way by exercising "the Government's authority as guardian or trustee over Indian property." Id. at 652.

In that same year, a district court in Edwardsen v. Morton, held the Alaskan Native petitioners had stated a valid claim for breach of trust against federal officers who permitted oil companies to trespass on Native lands before Native title was extinguished. 369 F.Supp. 1359, 1378-79 (D.C.C. 1973). Source and scope of trust was determined by previous case law and, in one case, quoting dicta from a past case stating the government

had a duty to protect native land from third-party intrusions (citing Tee-Hit-Ton Indians v. United States, 348 U.S. 272, 279 (1955)).

Later that year in California, the concept had become a foregone conclusion in Manchester Band of Pomo Indians v. United States where the court found the government liable for mismanagement of Tribal trust funds by accepting the existence of a trust relationship as "unquestioned" and relying on previous court decisions and federal statutes. 363 F.Supp. 1238, 1243 (N.D.Cal. 1973). The court gave the statutes liberal construction and stated the government should be held to the same standards as private trustees. Id. at 1245.

Statutes that did not even use the word "trust" were construed to have imposed that duty. In Cheyenne-Arapaho Tribes v. United States, the Court of Claims held that the United States by the very act of keeping Indian money in the treasury imposed a trust status even when the statutes authorizing deposits did not use the word "trust." 512 F.2d 1390 (Ct. Cl. 1975). The court used the restatement and directed the trial judge to apply private trust law standards.

Thereafter, courts began to find a duty by canvassing the entire landscape of Indian affairs and trust law. In White v. Califano, the court found a federal legal responsibility to provide healthcare to Indians. 437 F.Supp. 543 (D.S.D. 1977). The court construed this responsibility as emanating from "the 'unique relationship' between Indians and the federal government, a relationship that is reflected in the hundreds of cases and is further made obvious by the fact that one bulging volume of the U.S. Code pertains only to Indians." Id. at 555.

#### **IV. Courts Begin to Narrow the Source and Scope of Trust Duty**

The 1980's evidenced a decade where courts sought to narrow the scope of federal trust responsibility, especially when discretionary actions taken by federal executives were at issue. However, while opinions seemed to have mandated showings of explicit statutory duty, courts have been consistent at reading these statutory schemes liberally, taking into consideration the long history of general trust duty.

In Mitchell v. United States, 591 F.2d 1300 (Ct. Cl. 1979), the court of claims held the BIA liable for mismanaging land and timber resources based upon the General Allotment Act provision that stated certain land was to be held "in trust" for Indian owners, which put

it in the purview of the Tucker Act which gave it jurisdiction under "any Act of Congress." The United States appealed.

The Supreme Court heard the case in United States v. Mitchell, 445 U.S. 535 (1980), reversing the Court of Claims and held that although the Tucker Act grants subject matter jurisdiction, it does not waive sovereign immunity and that the Allotment Act created only a limited trust relationship, designed to prevent alienation or taxation of land and did not explicitly impose a duty to manage timber properly.

The court of claims reheard the case in Mitchell v. United States, and found jurisdiction when the Tribe presented it with the relevant legislation regarding forest management (i.e., 25 U.S.C. §§406-407, §466), which ultimately led to the rehearing of the case in the Supreme Court. 664 F.2d 265 (Ct. Cl. 1981)

The Supreme Court in United States v. Mitchell, held the Tucker Act, 28 U.S.C. § 1491, and its counterpart for claims brought by Indian Tribes, the Indian Tucker Act, 28 U.S.C. § 1505, provided consent to suit for claims founded upon statutes or regulations that create substantive rights to money damages. 463 U.S. 206 (1983). The court found that "[a] fiduciary relationship necessarily arises when the government assumes such elaborate control over forests and property belonging to Indians. All the necessary elements of a common-law trust are present: a trustee (the United States), a beneficiary (the Indian allottees), and a trust corpus (Indian timber, lands, and funds)...ou[r] construction of these statutes and regulations is enforced by the undisputed existence of a general trust relationship between the United States and the Indian people."

After the Court spoke a second time in Mitchell, courts have been more willing, but not altogether successful, to more narrowly construe relevant statutes, departing from traditional Indian caselaw canons of construction. In Jicarilla Apache Tribe v. Supron Energy Corp., the Tenth Circuit, en banc, reversing an earlier panel decision, held that the Mineral Leasing Act and federal leasing regulations constituting a comprehensive statutory scheme and was sufficient to establish a general fiduciary relationship permitting a claim for mismanagement. 782 F.2d 855 (10th Cir. 1986) (en banc) (per curiam), rev'g, 728 F.2d 1555 (10th Cir. 1984) (panel), cert. denied sub nom., Southern Union Co. v. Jicarilla Apache Tribe, 479 U.S. 970 (1986). The Court held the Secretary had a duty to maximize royalty income, which he breached by adopting a method of calculating royalties, permitted by the applicable regulations, but not sufficient to maximize royalty income. The Tenth Circuit panel had earlier construed the statutes and

regulations narrowly, holding that the regulations gave the Secretary the discretion to adopt the method of calculation. The full court agreed with Justice Seymour's initial dissent to the panel decision, asserting that discretionary actions taken by the Secretary are constrained by "principles of Indian trust obligations as well as by principles of administrative law." 728 F.2d at 1566-67.

In Pawnee v. United States, the Federal Circuit Court of Appeals followed suit and found a general trust relationship emanating from statutes and regulations governing oil and gas leasing, but took a narrower view of the scope of the Secretary's duties. 830 F.2d 187 (Fed. Cir. 1987), cert. denied, 108 S.Ct. 2014 (1988). The court held the Secretary had not breached any duties because the regulations did not require him to use any other method of royalty calculation and since the Tribe had not challenged the regulations themselves, the court dismissed the suit for failure to state a claim, stating: "The scope and extent of the fiduciary relationship, with respect to this particular matter, is established by the regulation and leases." Id. at 192.

Both courts agreed the statutory scheme created a comprehensive trust relationship. However, the Federal Circuit's dismissal of the claim looks much like Jicarilla Apache's panel decision, and could mean a willingness to give more weight to discretionary language in determining whether the Secretary has adequately carried out his/her duty.

## V. Cases Weighing the Conflicting Interests of Federal Agencies

The conflict of interest between the government's need to further national goals and its fiduciary obligations to Indians have been considered by the courts in a few instances. In an early breach of duty of loyalty case, Navajo Nation v. United States, the government was held liable for breach when the Bureau of Mines, interested in helium production for the war effort, failed to notify the Navajo Tribe of an oil and gas lease that was being surrendered by a private corporation on lands in the Navajo reservation and took assignment of the lease itself. 364 F.2d 320 (Ct. Cl. 1966). The Court of Claims held the failure to notify constituted an usurpation of Tribal business opportunity by a trustee, since the Tribe might have been able to more profitably exploit its helium source. The court compared the government's failure to "that of a fiduciary who learns of an opportunity, prevents the beneficiary from getting it, and seizes it for himself." Id. at 324 (citing Ottawa Tribe v. United States, 166 Ct. Cl. 373, 380 (1964), cert. denied, 379 U.S. 929 (1966)).

The question was again presented in Pyramid Lake Paiute Tribe v. Morton, 354 F.Supp. 252 (D.D.C. 1972), where the Paiute Tribe challenged a regulation issued the Secretary of Interior, responsible for both supervision of Tribes and the Bureau of Reclamation, claiming the regulation was arbitrary and capricious and an abuse of authority. Brought under the Administrative Procedure Act, 5 U.S.C. §§ 551-706 (1976 & Supp. IV 1980), the court found the Secretary violated his duty to the Tribe by disregarding the Tribal interest to keep Pyramid Lake (a considerable Tribal asset) full in order to divert water to a Bureau of Reclamation irrigation project. The Secretary's action was found arbitrary and capricious and the court ordered the Secretary submit new regulations consistent with his duty to preserve the Tribe's asset. In a subsequent law review article, a noted Indian law professor wrote that Morton in effect "[i]mposed a duty of loyalty on federal officials and suggested that when actions or projects of federal agencies conflict with the trust responsibility to Indians, the non-Indian federal activity should be operated so as to avoid interference with Indian trust property." Chambers & Price, Regulating Sovereignty: Secretarial Discretion and the Leasing of Indian Lands, 26 Stanford L.Rev. 1061, 1233-34 (1974).

When the case reached the Supreme Court, the decision was affirmed, but narrowed. In Nevada v. United States (decided the same year as Mitchell), 463 U.S. 110 (1983), the Court distinguished the case from previous conflict of interest cases by focusing on the fact that Congress had provided the Secretary of Interior with some latitude of discretion, of which the court gave great deference to, when it delegated the responsibility for supervision of Tribes in addition to reclamation projects in areas adjacent to reservation lands,

"...[i]t may well appear that Congress was requiring the Secretary of Interior to carry water on at least two shoulders when it delegated to him both the responsibility for the supervision of Indian Tribes and the commencement of reclamation projects in area adjacent to reservation lands. But Congress chose to do this, and it is simply unrealistic to suggest that the Government may not perform its obligation to represent Indian Tribes in litigation when Congress has obliged itself to represent other interests as well. In this regard, the Government cannot follow the fastidious standards of a private fiduciary, who would breach his duties to his single beneficiary solely by representing potentially conflicting interests without the beneficiary's consent. The Government does not 'compromise' its obligation to one interest that Congress obliges it to represent by the mere fact that it simultaneously performs another task for interest that Congress has obligated it to do so."

The Court went on to give reference to Heckman v. United States, 224 U.S.413, 444-445 (1912), which held that the government's duty is not governed by rules of private fiduciaries, but is a duty tracing its source to Congress' plenary power to legislate for the protection of the Indians under its care (recognizing no limitations inconsistent with the discharge of the national duty). Citing a case that comes from the plenary power era came as an interesting choice of authority. It came as a sharp divergence from the common use of traditional canons of construction that has required courts to "[p]rovide for a broad construction when the issue is whether Indian rights are reserved or established, and for narrow construction when Indian rights are to be abrogated or limited." F. Cohen, Handbook of Federal Indian Law 225 (1982).

In Nevada, the court discussed the conflict of interest issue and recognized a strong fiduciary duty to its "Indian wards", but stated that where Congress has imposed a dual duty, the analogy to a private fiduciary is not controlling. The Court still held the Tribe had a case against the United States and the breach was appropriately compensable. Justice Brennan in his concurrence stated: "The mere existence of a formal 'conflict of interest' does not deprive the United States of authority to represent Indians in litigation, and therefore to bind them as well. If, however, the United States actually causes harm through a breach of its trust obligations, the Indians should have a remedy against it."

In a case following Nevada, the Navajo Nation claimed the government engaged in self-dealing when it failed to charge an agency, created as part of the Manhattan Project, for exploring Navajo land for uranium and the court held the government accountable for failing to collect rents and royalties. Navajo Tribe v. United States, 9 Cl. Ct. 227 (1985). But, in evaluating the self-dealing claim, the court construed the Nevada holding very broadly and denied recovery. Since no statutes or regulations required permits or permission from landowners, the government sought none. Although the court stated such action by a private trustee would be a breach of duty of loyalty, they held that Nevada did not allow for recovery because "[t]he defendant was presented with its fiduciary obligation to the Indians and its obligation to promote the interests of national defense." Id. at 252.

Subsequent cases have narrowly interpreted Nevada as not precluding such breach suits, but more precisely, held that a conflict of interest does not in and of itself constitute a breach of trust. The Ninth Circuit in White Mountain Apache Tribe v. Hodel held that the United States was able to represent both the Tribe and Bureau of Land Management adequately in a water rights adjudication, but stated that on the other hand, if the Tribe

had evidence of actual malfeasance on the government's part in its representation of the Tribe than the Tribe could press a claim for breach of trust. 784 F.2d 921 (9th Cir. 1986). And in Saguine, Ltd. v. United States Dep't of Interior, the Tenth Circuit held similarity when it allowed the affected Tribe intervene as the government settled the case only 33 days after commencement of the suit and violated its duty as trustee. 736 F.2d 1416 (10th Cir. 1984). A later decision examined that decision and stated that implicit in that decision to let the Tribe intervene was the decision that the Tribe could relitigate the issue settled in the consent decree, finding the government's actions a breach subject to relitigation. Id., 798 F.2d 389 (10th Cir. 1986), cert. denied, 479 U.S. 1054 (1987).

## VI. Traditional Canons of Construction

Court decisions often rest or fall upon how a court construes a statute, contract, treaty, executive order or regulation that is involved in the litigation at bar. This holds especially true in Indian law. "Since Congress is exercising a trust responsibility when dealing with Indians, courts presume that Congress' intent toward them is benevolent and have developed canons of construction that treaties and other federal action should when possible be read as protecting Indian rights and in a manner favorable to Indians." F.Cohen, Handbook of Federal Indian Law 221 (1982 ed.).

Treaties have usually employed liberal rules of constructions to treaties affecting Indian Tribes. See, e.g., Worcester v. Georgia, 31 U.S. (6 Pet.) 515, 552-55, 582 (1822) (interpretation in light of Indian understanding); Carpenter v. Shaw, 380 U.S. 363, 367 (1965) ("Doubtful expressions are to be resolved in favor of the weak and defenseless people who are wards of the nation.") However, in situations that are not bilateral, this liberal construction does not necessarily hold up, considering it is not a question of interpretation.

Liberal construction has also been given to ambiguous statutory language. See, e.g., Bryan v. Itasca County, 426 U.S. 373, 392 (1976) (construing Act of Aug. 15, 1953, Pub.L. No. 280, § 4, 67 Stat. 588, 589, as denying states power, absent specific federal statutory authorization, to tax Indians living on the reservation). See also, e.g., Rosebud Sioux Tribe v. Kneip, 430 U.S. 584, 586 (1977) (ascertainable congressional intent controls over understanding of Indians when statute is ambiguous, probably because the language is contained in a non-bilateral document).

Even in trust cases, courts have been more reliant on statutory language and congressional intent when construing statutory references. Recent trends show that the Court is very unwilling to look too far behind a statute to ascertain the significance of a statutory section. While it is not altogether impossible that the Court, or courts, will rely on traditional canons of construction regarding statutes, it has become more difficult for Tribes seeking to file suit for breach of trust to overcome the initial threshold of presenting an identifiable establishment of a trust.

## VII. Judicial Review and Standard of Review of Executive Actions

Many Tribes have sued invoking the Administrative Procedures Act, 5 U.S.C. §§ 701-706, to invalidate agency action harming Indian property or Tribal self-government as unreasonable or arbitrary and capricious. See, e.g., Navajo Tribe v. United States Dept. of Interior, 667 F.Supp. 747 (D.N.M. 1987) (failure to follow department's own procedure violated APA); Joint Tribal Council of Passamoquoddy v. Morton, 388 F.Supp. 649 (D.Me. 1975), aff'd, 528 F.2d 370 (1st Cir. 1975) (federal government's refusal to initiate litigation on behalf of the Tribe reviewable under APA where refusal predicated upon an error of law); Pyramid Lake of Paiute Indians v. Morton, 354 F.Supp. 252 (D.C.C. 1972), aff'd in part, Nevada v. United States, 463 U.S. 206 (1983) (holding the Secretary of Interior could not allocate water between competing agencies by means of a judgement call; court concluded allocation was arbitrary and capricious violative of the APA). However, critics have argued that the reasonableness standard should be strengthened when a conflict of interest issue is at hand. Chambers argues, "But such a standard should be applied with a careful awareness of the possible conflict-of-interest which may operate in the circumstances of a particular case...the 'divided loyalty' which often obstructs full employment of the trust responsibility would seem to require greater than less judicial scrutiny of administrative action." 27 Stanford L.Rev. 1213, 1238, 1242 (1975).

In this vein, the standard of duty that has been measured in breach cases have been not mere "reasonableness", but the United States as trustee, in one case, was held to the highest fiduciary standards when it failed to disclose adequately to Indians their statutory rights or limits on congressional funds provided for protermination services. Duncan v. United States, 667 F.2d 36, 229 Ct. Cl. 120 (1981), cert. denied, 463 U.S. 1228 (1981).

Other Tribes have sought relief in the Court of Claims, through the Tucker Act, 28 U.S.C. § 1491, which provides the court with jurisdiction to hear suits against the United States

founded upon the Constitution, or any Act of Congress, or any regulation of any executive department, or upon any express or implied contract with the United States. Tribes have been able to bring suit under § 1491 through § 1505 which allows for Indian claims, giving the Court of Claims jurisdiction over any claim against the government made by any Tribe, band or other identifiable group of American Indians. However, the scope of the Court of Claims' jurisdiction covers suits involving money damages or suits seeking a reformation of contract. However, if such equitable remedies are incident to a money judgement, the court is empowered to have that jurisdiction.

The Nuclear Waste Policy Act of 1982, 42 U.S.C. §§ 10101 et seq., provides for judicial review of agency actions in § 10139 of Title I covering "Disposal and Storage of High-Level Radioactive Waste, Spent Nuclear Fuel, and Low-Level Radioactive Waste". Title IV containing the definition and duties of the Nuclear Waste Negotiator have no such provisions for judicial review. However, the Negotiator has authority to negotiate for permanent repositories and monitored retrievable storage facilities and in that section (§ 10243(d)(2)) requires the agreement shall contain those terms and conditions, determined to be reasonable and appropriate by the Negotiator and host Indian Tribe, that is more specifically spelled out in Title I. Those terms and conditions required for the agreement are housed in Title I, of which, are reviewable under § 10139.

In § 10139 of the NWPA, the language provides that original jurisdiction shall reside with the United States courts of appeals (except for review by the U.S. Supreme Court) over any civil action involving a final decision made pursuant to Title I or action of the Secretary, President or Commission; constitutional challenges of any decision made, or action taken; and reviewing of any research and development activity under Title II. Venue is also provided for in the act placing it in the circuit where petitioner resides or has its principal offices, or in the U.S. Court of Appeals in Washington, D.C.

### **VIII. Building a Prima Facie Case: Requirements and Possibilities**

To sue the government for breach, a Tribe must satisfy three major threshold requirements: subject-matter jurisdiction, waiver of sovereign immunity and asserting a federally-recognized right entitling it to the relief requested.

The Nuclear Waste Policy Act clearly establishes an avenue of review of decisions and actions involved in the siting process of a permanent repository and a monitored retrievable storage facility. Implicit in that process is a very clear role for the Negotiator.

Although the title in which the Negotiator's role and responsibilities are housed does not offer a review process, the Negotiator's role in the siting process (focus being on process) would be reviewable under § 10139 and suit could be brought in the U.S. courts of appeals or the Court of Appeals of the District of Columbia.

The Act over and over again distinguishes Tribes from States, implicitly recognizing the different sovereignty issues involved. The Act could be construed to have understood the unique status of Indian Tribes, the special duty owed to them by federal agencies and executives and this would probably serve as an implied waiver of sovereign immunity to bring Negotiator's actions and decisions under the review of the judiciary.

The next exploration would be to identify an established duty entitling a Tribe to relief. In recent cases, courts usually turn to statutes and regulations, but at times, have turned to treaties and even federal common law as the basis for Tribal claims for equitable remedies and money damages. *See, e.g., Duncan v. Andrus*, 517 F.Supp. 1, 5 (N.D.Cal. 1977) (statute); *Jicarilla Apache Tribe v. Supron Energy Corp.*, 479 F.Supp. 536, 540, 547, 550 (D.N.M. 1972) (regulations); *Edwardsen v. Morton*, 369 F.Supp. 1359, 1375 (D.D.C. 1973) (common law); *Quinault Allottee Ass'n v. United States*, 485 F.2d 1391, 1400-01 (Ct. Cl. 1973) (treaty and statute). Professor Newton, in *Enforcing the Federal-Indian Trust Relationship After Mitchell*, recognized that although *Mitchell's* stricter mandates that Tribal-petitioners find trust duties in statutory language, "[e]ven broadly worded statutes will suffice if actual management has taken place, despite *Mitchell*." 31 Cath.U.L. Rev. 666 (1982). The Court will determine whether a Tribe or federal government have a trust relationship, analyzing legislation authorizing the department to supervise or control Indian property or money. If the agency does in fact exercise pervasive authority, court will generally read authorizing legislation as creating a general fiduciary relationship. In this instance, there is no statutory reference to a trust duty, nor has there an extensive regulatory scheme to wit or extensive authority exercised in the area by the Office of the Negotiator.

Once a relationship is established, courts will determine what duties exist and whether the government has breached them. Duties may be found in specific legislation, broad legislation read liberally or in general common law of trusts. 31 Cath.U.L.Rev. at 666. Next, courts will look at whether relief has been mandated. "A trust normally entails a right to compensation for the trustee's breach...and this statute does not in any way suggest otherwise," was the conclusion of the Court in *Mitchell*, 664 F.2d 265, 271 (Ct. Cl. 1981).

But what about intangible Tribal resources, like Tribal self-government ? If the standard focus is on the management (or mismanagement, as the case may be) of tangible resources, then how would the Negotiator's management scope reach this very intangible concept ? It would be difficult to quantify or difficult to narrow down to a duty or right owed to or owned by Tribes. In this instance, money remedies would not be necessary sought but instead, equitable remedies such a declaratory and injunctive relief sought for a decision or action made by, or on the advice of, the Negotiator.

## CONCLUSION

Breach of trust actions are premised on the concept that the trustee is in some way acting in a trustee capacity for Indians. The Negotiator's role is to presumptively deal at "arms-length" with all parties and bring interested and affected parties to the table and ensure all interested parties are involved in the process of establishing a reasonable agreement. Can the Negotiator truly deal at arms-length with Tribes when there is an implied duty by federal executives to act in a trust capacity when dealing with Indian Tribes ? Indian law experts and caselaw has indicated that there is a presumptive duty, unless that duty has been altered by statute, either explicitly or by congressional intent. But there has yet to be a case where a Tribal petitioner has come forth claiming breach of trust by an agency that has not had significant regulation or authority to regulate in the particular area. With the lack of historical dealings between the Office of the Negotiator and Indian Tribes, the probable unwillingness of courts to impute a presumptive trust would be a particularly difficult obstacle for Tribes.

Here, it is difficult to fathom that Congress did not realize that the Negotiator must deal with all parties equally in order to realize a fair agreement amongst all the parties. Congress is aware that because Indian land is held in trust and agreements negotiated that involves the use and/or disposal of such land must be reviewed by the Secretary of Interior, who is statutorily mandated to act as a trustee for Indian Tribes. So, then what objections could arise ?

Tribes may complain that they were not involved enough in the process or the process favored another affected party to the detriment of the Tribe. A Tribe asserting a trust case in this instance will have to attack the process -- strategy, timing, level of involvement. Thus, a suit would probably, at most, give rise to such equitable remedies as declaratory judgements and/or injunctions to halt certain negotiations strategies, processes or introduction of an agreement to Congress. As stated earlier, however, the existence of a conflict of interest is not normally enough to permit recovery for breach of trust but a petitioner must prove that a trust was established via statutory language, judicial fiat, congressional intent, regulations or involvement

in the area. As the proposed projects have obvious national import, the discretionary nature of the Negotiator's role will undoubtedly be given great deference in regard to dealings with Indian Tribes. However, courts may also turn over the coin to find that because the initiative is of such national import and potential political and environmental significance that they may be more apt to entertain a prayer for injunctive relief on the part of Indian Tribes, stalling the process until the agreement becomes a dead issue on the floor of either house. It can potentially be an effective weapon.

The original Marshallian view of the trust doctrine was to use it to ensure Indian sovereignty was not encroached upon by power-hungry surrounding states. Recent breach of trust cases have caved into the idea that government regulation so pervades the area that suits for breach is the only effective way of ensuring accountability. Tribes have turned to trust suits to ensure accountability but have, by association, seemed to have provided rationalization for increased regulation in the area, by giving the government and courts an explanation and tacit acceptance of continuing control of Tribal assets, property and government. This approach has managed to ensure some accountability to Tribes, but Tribes may reconsider whether this is an ultimately disenfranchising strategy of attacking federal mismanagement.

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## MEMORANDUM

TO: Bob Mussler, Counsel

FROM: Tracey LeBeau, ONWN/CERT Intern

DATE: July 2, 1993

RE: The Federal Contracting Process with Indian Tribes and Negotiations and Contracting Authority of the Fort McDermitt, Mescalero Apache, Goshute and Tonkawa Tribes.

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### QUESTIONS PRESENTED

1. What is the normal contracting process required when dealing with Indian Tribes ?
2. Who is legally authorized to negotiate for and legally bind Indian Tribes in the negotiations and contracting process ?

### SHORT ANSWERS

1. The process is governed by both 25 U.S.C. § 81 and § 415, both of which require approval of a contract or agreement made with an Indian Tribe or Indian landowner by the Secretary of the Interior. That approval is entirely a discretionary matter. Many construction and management contracts of facilities on Indian reservations have been disapproved, and upheld in the courts, for not following the specific requirements set in these sections. Consultation and approval by the Secretary of the Interior is recommended and required in most cases.
2. In general, the respective Tribal constitutions and Tribal traditional governing process (absent a constitution) control who is able to negotiate and make contracts on behalf of

a Tribe. Many Tribes delegate power to negotiate to executive committees or presidents but reserve the power to approve the contracts or agreements so negotiated through duly-approved Tribal council resolution or Tribal referendum.

Lacking relevant caselaw on the subject, courts will ultimately rely on the record, determining how inclusive and responsible the negotiations process was, who the duly-elected, appointed or recognized leaders of the respective Tribes were, how they came to have the power to negotiate and whether the statutory requirements were met to find whether the agreement is legally binding on the Tribe.

## **DISCUSSION**

### **I. Introduction -- The Contracting Process**

Discussions regarding authority to contract by Indian Tribes without a broad discussion about the contracting process would be focusing on the trees, giving little thought to the forest. The complexity of the contracting process, especially involving construction of a major facility such as a repository or interim storage facility, is no doubt made even more complex as Tribes usually have their own rules and regulations in addition to the federally-imposed maze of rules and regulations regarding any developments on Indian reservations and/or contracts made with Indian Tribes or pertaining to Indian lands. The often confounding interplay between these various governmental entities requires, at least, a cursory look at the contracting process requirements when dealing with Indians to give a sense of why those responsible to negotiate are, indeed, those responsible.

Title 25 of the United States Code contains two provisions regarding contracts made with Indian Tribes and/or leasing Indian lands. Those sections are, respectively, 25 U.S.C. § 81 and 25 U.S.C. § 415. Both sections require contract approval by the Secretary of the Interior, or those within the Interior or Bureau of Indian Affairs with delegated authority to do so. The Code of Federal Rules provides some guidance to the Secretary of the Interior regarding the scope of that discretion in 25 C.F.R. § 131.5(b). Additionally, the Bureau of Indian Affairs' Manual and caselaw has further focused that scope of discretion throughout the years.

**A. 25 U.S.C. § 81. Contracts with Indian Tribes or Indians.**

The United States Code in § 81 lists what contracts made with Indian Tribes or Indians must contain to be approved by the Interior and to be validly binding on Indian Tribes. The requirements are as such, in pertinent part, No agreement shall be made by any person with any Tribe of Indians...for the payment or delivery of any money or other thing of value, in present or inprospective, or for the granting or procuring any privilege from him, or any other person in consideration of services for said Indian relative to their lands...unless such contract or agreement be executed and approved as follows:

First. Such agreement shall be in writing, and a duplicate delivered to each party.

Second. It shall bear the approval of the Secretary of the Interior and the Commissioner of Indian Affairs endorsed upon in.

Third. It shall contain the names of all parties in interest...; and if made with a Tribe, by their Tribal authorities, the scope of authority and reason for exercising such authority, shall be given specifically.

Fourth. It shall state the time when and place where made, the particular purpose for which made, the special thing or things to be done under it..

Fifth. It shall have a fixed limit time to run, which shall be distinctly stated. (emphasis added)

**B. 25 U.S.C. § 415. Leases of restricted lands for public, religious, educational, recreational, residential, business, and other purposes; approval by the Secretary.**

This section requires secretarial approval and fixes limited time periods for lease contracts. The 1970 amendments additionally require the Secretary to consider environmental and land use factors before approvals of any lease. Ch. 615, 69 Stat. 539 (codified as amended at 25 U.S.C. § 415-415d), in pertinent part,

- (a) Any restricted Indian lands, whether Tribally or individually owned, may be leased by the Indian owners, with the approval of the Secretary of the

Interior for...business purposes...for a term of not to exceed twenty-five years, except leases of land located outside the boundaries of the [specified reservations]. Leases for...busines[s] purposes with the consent of both parties may include provisions authorizing their renewal for one additional term of not to exceed twenty-five years, and all leases and renewals shall be made under such terms and regulations as may be prescribed by the Secretary of the Interior.

This provision requires any contract affecting Indian lands or at land held in trust to be approved by the Secretary and permits all Indians to lease their land up to fifty years for various purposes. The legislative history shows that Congress was foremost interested in increasing Indian income by opening Indian land up to market forces and encouraging long-term fair annual rental. The Code of Federal Rules, namely 25 C.F.R. § 162.5(b) (1982), gave direction to the Secretary by requiring her/him to scrutinize only the financial fairness of the lease: "...no lease shall be approved at less than the present fair annual rental."

### **C. Bureau of Indian Affairs (BIA) Regulations**

Both the Bureau of Indian Affairs (BIA) and the courts have focused the scope of considerations for lease approvals by the Secretary, and authorized BIA personnel who are able to approve or disapprove contracts. The former have done so by implementing regulations in agency manuals, taking into consideration the federal trust duty.

In the BIA Manual, the Secretary's instructions are more explicit than the Code of Federal Rules. BIA Manual pt. 54, § 5.1, stating, in pertinent part, The objective of the Bureau...in approving leases or permits on trust or restricted land is to obtain for the Indian owners the maximum financial return...consistent with sound land utilization principles.

This narrowing by the Bureau, pursuant to agency administrative rule-making power, was consistent with numerous and repeated government policies aimed at furthering and strengthening Tribal self-government and self-determination and a more comprehensive and focused development strategy for Indian lands.

## II. Contracts Covered by the Statutes

Contracts or agreements made with Indian Tribes "relative to their land" is covered by 25 U.S.C. § 81 requiring that they be made in writing, be approved by the Secretary of the Interior and the Commissioner of Indian Affairs, explicitly state names of contracting parties, their governmental capacities to contract, and a fixed time limit for the contract or agreement (subject to a statutory maximum 50-year limitation).

Courts have held broadly that § 81 extends to all transactions affecting Indian property. Wisconsin Winnebago Business Committee v. Koberstein & Ho-Chunk Management, 762 F.2d 613 (7th Cir. 1985). In cases like Wisconsin Winnebago, courts have held that contracts made with nonmember third parties providing for the construction and management of bingo facilities on Indian land is subject to the restrictions and requirements of § 81. See also, e.g., A.K. Management Co. v. San Manuel Band of Mission Indians, 789 F.2d 785 (Cal. 1986) (agreement giving non-Indian contracting party exclusive right to build and control bingo facility located on trust land requires approval because broad language of § 81 expressed congressional intent to protect Indians from improvident and unconscionable contracts); United States ex rel. Shakopee Mdewakanton Sioux Community v. Pan American Management Co., 616 F.Supp. 1200 (D.C.Minn. 1985), appeal dismissed, 789 F.2d 632 (8th Cir. 1986) (management contracts made with Shakopee Sioux null and void for lack of required approval by Bureau of Indian Affairs pursuant to § 81); Pueblo of Santa Ana v. Hodel, 663 F.Supp. 1300 (D.D.C. 1987) (secretarial approval of contract between nonprofit incorporated arm of Tribe and private businessman was "relative to Indian lands" and required, even when transfer of land was intra-Tribal); Barona Group of the Capitan Grande Band of Mission Indians v. American Management & Amusement Inc., 824 F.2d 710 (9th Cir. 1987), *aff'd*, 840 F.2d 1394 (9th Cir. 1987). But *c.f.*, Inecon Agricorporation v. Tribal Farms, Inc., 656 F.2d 498 (9th Cir. 1981) (approval not required when Tribe was established and incorporated as a separate corporation under state laws as corporation does not fall under protected class of "Tribe of Indians or individual Indians covered in the statute."); Sac & Fox Tribe of Indians of Oklahoma v. Apex Construction Co., Inc., 757 F.2d 221 (10th Cir. 1985), *cert. denied*, 106 S.Ct. 146 (approval not required of construction contracts made by Tribe and funded by non-Tribal sources because § 81 governs only the right to be compensated from Tribal funds.)

The leasing of land for any reason requiring a lease permit, agreement or contract is clearly governed by § 415. The length limitations and requirements for approval (i.e.

who has the responsibility to review and approve) for leases are dependent upon what purpose the lessee is intending the land to be used for.

### **III. The Review Process**

In general, short-term agricultural and grazing leases are approved by the reservation Bureau of Indian Affairs (BIA) office, usually located at the same site as the Tribal headquarters. Longer leases are submitted to one of the ten BIA area office directors, which have delegated authority to approve leases of up to 65 years. BIA Manual, pt. 10, § 3.3(E)(1). Leases longer than 65 years must be approved by the Assistant Secretary of the Interior, Ms. Ada Deer (confirmed in July of 1993), pursuant to authority delegated to her from the Secretary. *Id.* at § 2.1 It remains to be seen, however, whether a Commissioner for Indian Affairs will be appointed at the Department of the Interior although there has been discussions of it. The Commissioner's approval would also be required if one is so appointed. The critical reviewing personnel being the Real Property Management Division.

### **IV. Agency Approval Discretion and Standard of Review**

Any discretionary action by a federal official is reviewable under the Administrative Procedures Act (APA), 5 U.S.C. § 706, which provides courts with the power to review and set aside agency action, findings and conclusions found to be arbitrary, capricious, an abuse of discretion, in excess of statutory jurisdiction, authority, or limitations, or short of statutory right, or unsupported by substantial evidence.

In the case of Ho-Chunk Management Corp. v. Fritz, 618 F.Supp. 616, 619-20 (D.C.Wisc. 1985), the court, under the APA, held that the standard of review for Secretarial discretion, as provided in § 706(2)(A), is whether the decision of the Secretary was "arbitrary, capricious, an abuse of discretion, or otherwise not in accord with law in light of his fiduciary duty under 25 U.S.C. § 81 to make decisions in the best interest of the particular Indian Tribe involved."

In recent years, courts have favorably reviewed actions taken by the Secretary retroactively disapproving contracts made by non-Indian third parties with Indian Tribes. In those instances, Tribes sought review of whether bingo construction and/or management contracts require secretarial review under § 81, and especially under § 415, and whether the disapproval of those contracts by the Bureau was an abuse of discretion.

In both instances, the courts found the subsequent disapproval of both contracts, in which the parties did not believe to be within the purview of the statutes and began work under, to be within acceptable discretionary limits.

In United States ex rel. Shakopee Mdewakanton Sioux Community v. Pan American Management Co., the Eighth Circuit held that the retroactive application of the approval requirements contained in § 81 and § 415 to construction and management contracts made with the Tribe was legal and the area director's disapproval of the contracts, and the Deputy Secretary's affirmance, was within allowable limits of their discretion. The court held the Secretary's actions are reviewable and are limited by the "fiduciary responsibilities vested in the United States as trustee of Indian lands." Id. at 1208. (citing Kenai Oil & Gas, Inc. v. Department of the Interior, 671 F.2d 383, 386 (10th Cir. 1982)). The court further considered "whether the decision was based on a consideration of the relevant factors and whether there has been a clear error of judgement." Id. at 1212. (citing Citizen's to Preserve Overton Park v. Volpe, 401 U.S. 402, 416 (1971)). The court went on to hold that even absent the Bureau's review, the contracts were null and void as they did not provide for periodic renegotiation of the forty-five percent management fee for the company as required by statute and by the fact that the community clearly objected to the agreements, as seen in their instigating a suit against the management company seeking to declare those agreements (made by a previous administration) null and void. Id. In this instance, the community's subsequent repudiation of the contract was not based on a perception of a right to do so because of the transition in Tribal government but was an example of the community taking advantage of the approval requirement, and lack thereof, as a tool for repudiating the contract retroactively. Tribal governments can probably no longer take such advantage of this formerly grey area of the law, especially after the declaration by the Department of Interior that construction and management contracts subsequently made are subject to the same contract requirements contained in § 81 and § 415.

In Ho-Chunk Management Corp. v. Fritz, 618 F. Supp. 616 (D.C.Wisc. 1985), the management company brought suit to review decision of Assistant Secretary disapproving the bingo management contract with Tribal business committee. The court held that the Bureau had sufficient reasons to disapprove the contract as the Bureau gave great weight to the fact that the Tribe repudiated the contract. The court was felt the community sentiment against the agreement was grounds enough but stated that even absent that fact, the Bureau had evidence "sufficient to justify their conclusion that the contract was not in the best interests of the Tribe." Id. at 619-20. However, the court

vacated the decision and remanded it back to the Bureau in order to provide the agency time to collect evidence of their reasonable suspicions. "The difficulty with the Secretary's decision, however, is that there is absolutely no competent evidence of record to support the finding...that John Koberstein [legal counsel for the Winnebago Tribe and President of Ho-Chunk Management Corporation] was laboring under a conflict of interest in negotiating and contracting with the Wisconsin Winnebago Business Committee." Id.

## V. Challenging Agency Action

Standing has not been a significant issue in most cases challenging decisions made by the Secretary of the Interior but it remains unclear as to what the precise requirements are to initiate a suit for review. In United States ex rel. Shakopee Mdewakanton Sioux Community v. Pan American Management Co., the court discussed the issue of standing and stated to establish standing to obtain review of agency action, the following will be closely scrutinized: (1) whether there was an injury in fact; (2) whether there was an arbitrary or capricious agency action made which injured an interest arguably within the zone of interests to be protected or regulated by the statute or constitutional guarantee in question; and (3) whether there is no "clear and convincing" indication of legislative intent to withhold judicial review. 616 F.Supp. 1200, 1207 (D.C.Minn. 1985). In discussing the zone of interest test, the court made several references to the fact that the statute was "enacted solely for the protection and benefit of Indians." Id. at 1208. Because it was enacted to regulate contractual relations with Indian Tribes, the court stated: "It appears to the court that the statute is concerned with the Indian Tribes and their ability to contract however. The potential economic interest of non-Indians in a contractual relationship with a Tribe is not within the intended purview of the statute." Id. However, the court did conclude that "the precise issue raised here is undecided" and the issue of standing was moot as there were other factors that prevented recovery for the plaintiff. Id.

It is not entirely clear that non-Indian contracting parties can demand review of agency actions under these sections when contracting with Indian Tribes. The focus has been on recovery by Tribes for Tribal expenditures or a declaration by Tribes to review projects they subsequently want to get out of. The focus has not been on the litigation of the contractual rights of non-Indian parties.

The Tenth Circuit in Sac & Fox Tribe of Indians of Oklahoma v. Apex Construction Co., Inc. held that § 81 was inapplicable to retroactively void a contract made with the Tribe because the Tribe could not bring federal action to recover monies paid where contract funds were not Tribal funds but were Economic Development Administration (EDA) grant monies. 757 F.2d 221 (10th Cir. 1985), cert. denied, 106 S.Ct. 146. The court made mention of the Eight Circuit decision in Brown v. United States which held that the statute governs only "the right to be compensated from Tribal funds." Id. at 222. (citing Brown v. United States, 486 F.2d 658, 661 n.2 (8th Cir. 1973)). However, neither statute specifically states its requirement as being limited to only compensation of Tribal funds.

The caselaw in this area seems to point in the direction of limiting standing for review cases to those contract situations where Tribes have contracted out with a non-Indian entity, using Tribal funds. However, what controls when a non-Tribal entity contracting with a Tribe seeks review of agency action where the contract involvement payment to the Tribe for services rendered? While § 415 would explicitly involve the leasing of land with Tribes and would ostensibly cover the situation at hand, the standing issue remains unclear and interesting.

In a siting situation where the undertaking is more complex than a simple leasing agreement, the complexity of the entire negotiations and contracting process may require agencies and Tribes view the agreement in broader terms, resulting in a broader reading of statutory requirements. In cases where Tribes have contracted out to a single entity for construction and management of gaming facilities, courts have been more than willing to read statutory requirements as being within the purview of the Bureau of Indian Affairs as these agreements are often complex and the managing entities have gained a considerable control over the land and area. Courts are then, in keeping with the trust concept, very deferential to agency discretion in determining whether the contract or agreement is in the best interests of the Tribe.

## **VI. Persons Entitled to Negotiate for a Tribe**

Tribes, in 1934, were given the option to reorganize themselves in accordance with the Indian Reorganization Act (IRA) of 1934, Act of June 18, 1934, ch. 576, 48 Stat. 984, as amended, at 25 U.S.C. §§ 461-479 (1970). The IRA recognized the inherent authority vested in Tribal governments to exercise self-governance and halted further allotment of Indian Tribal property. Tribes were provided the option to ratify constitutions, to adopt charters of incorporation or to choose not to adopt any of the above options (notably,

Navajo Nation declined to adopt the IRA). However, the exception to the rule being Oklahoma Indian Tribes which were covered by the Thomas-Rogers Oklahoma Indian Welfare Act, 25 U.S.C. §§ 501-509, 49 Stat. 1967, which provided for opportunities for Tribes to ratify constitutions and/or file charters of incorporation. Because the Indian Reorganization Act (IRA) was enacted to rectify the allotment policy, the IRA was not applicable to Oklahoma Indian Tribes because the Oklahoma Tribes were unaffected by allotment. In response, Congress enacted the Oklahoma Indian Welfare Act which essentially reiterated the policies set forth in the IRA. And in § 503 of the statute there is explicit reference to those Tribal powers enumerated in the IRA as being applicable to Oklahoma Indian Tribes.

Many Tribes have, since the passage of the IRA, adopted some form of constitutional Tribal council or incorporated business committee form of government. For Tribes who are not organized as such and have maintained a more traditional form of government, consensus has been the vehicle in which decisions are made and carried out, by the community leader or Chairperson. In any case, negotiations must include the duly recognized Tribal leadership and any negotiated contract would no doubt require a referendum vote by the Tribal membership, the council, in order to assure a binding agreement.

Logically, for those Tribes who are federally recognized, the government is required to deal with those whom are duly recognized as authorized leaders -- delegated by constitutional legislative fiat, corporate charter or community consensus the right to negotiate on behalf of the Tribe. However, most governments reorganized under the IRA "unlike federal and state governments, have no provision for the separation of powers. The governing body is the Tribal council, and in many instances it acts in a legislative as well as executive capacity. The council members, acting either in their capacity as elected political officials or as directors of the Tribal corporation, also manage the common resources of the Tribe." Comment, Tribal Self-Government and the Indian Reorganization Act of 1934, 70 Mich.L.Rev. 955, 973 (1972) (referring to the Amended Charter of the Mescalero Apache Tribe of New Mexico, § 4.)

The Indian Reorganization Act in § 16 provides that constitutional Tribal governments should vest its powers in the Tribal council to negotiate with Federal, State, or local governments. In § 17, the Act provides for the issuance of a charter of incorporation to a Tribe and establishes procedures and requirements for petition and ratification, including a ten-year limitation on the length Tribes would be able to lease land within

the reservation. 25 U.S.C. § 277 (1970). However, pursuant to their plenary power to legislate on behalf of Indians, Congress has continuously amended the lease length requirements to allow most Tribes to lease land within reservation boundaries up to fifty years. 25 C.F.R. § 162.8 "Duration of Leases" (requiring the Secretary of the Interior to approve leases that will allow the highest economic return to the owner consistent with prudent management and conservation efforts for a maximum of twenty-five years with an option to renew for one additional twenty-five year term.)

The Code of Federal Rules also allows for negotiation of leases of individually-owned land or Tribal land by those owners or representative who may execute leases. 25 C.F.R. § 162.6. And the code also allows for Tribes or Tribal corporations acting through their appropriate officials to grant leases. 25 C.F.R. § 162.3. The question then becomes: Who is delegated that authority to negotiate for lease, to approve those leases and legally bind Tribes and/or Tribal corporations (business committees) in contracts or agreements leasing the same?

In some cases, Tribes reorganized under constitutional conventions but also incorporated themselves, maintaining authority and working in conjunction with each other in contracting processes. Queries into the respective Tribal constitutional or charter language would serve to illuminate what sorts of business Tribes are willing to involve themselves in and what sort of representation they envision their elected officials as possessing in any type of business negotiation. (NOTE: The Mescalero Apache, Skull Valley Goshute, Fort McDermitt and Tonkawa Tribal constitutions [those sections relating to negotiations, contracting and land issues] are attached, in pertinent part, in their original language, to the end of this document.)

## **VII. Respective and Specific Constitutional Authority to Represent the Tribe in Negotiations and Tribal Ability to Enter into Specific Contracts**

### **A. The Mescalero Apache Tribe**

The Mescalero Apache Tribal government is structured in much the same way as the United States government insofar as they have instituted a separation of powers governmental structure, establishing legislative, executive and judicial branches (contrasted to many Tribes to whom the concept is entirely foreign and does not jibe with traditional concepts of government). The Mescalero Apaches ratified their Tribal Constitution in 1936. The authority of Tribal officials are

explicitly spelled out and, in general, all major decisions are made by the legislature, which consists of an eight-member Tribal council, with special consideration made for referendum votes when such popular votes are called.

### Who Can Negotiate

The President is allowed to serve as chief executive officer of the Tribe and Chairman of the Council. Mescalero Const. art XXII, § 1, para. a. The President is also empowered to serve as contracting officer for the Tribe, following approval of all contracts by the Tribal council. Id. at para. d.

The Council may authorize the President to negotiate contracts, leases and agreements (subject to the review or approval by the Secretary of the Interior) and all leases and agreements so negotiated must be approved by the Council. Id. at art. XI, § 1, para. f. However, the power to represent the Tribe, act in all matters concerning the welfare of the Tribe and negotiate lies primarily with the council, absent that delegation. Id. at para. i, j.

### What May Be Negotiated

The constitution explicitly states that title to reservations lands shall remain Tribal property and the control of such shall be in the Tribal council, subject to applicable Federal authority and regulated by Tribal ordinances. Id. at art. III, § 1.

Article XI provides the Tribal council with the power to encumber, lease, permit, sell, assign, manage or provide for the management of Tribal lands and has the power to veto any such sale, disposition, lease or encumbrance of Tribal lands. Mescalero Const. art. XI, § 1, para. a-b.

Generally, actions must be approved by the Tribal council and is subject to veto, much like the United States' system, by the President. However, the Mescalero constitution also provides for legislative override for Presidential veto, requiring two-thirds majority of the Tribal council. But, however passed, all resolutions must be reviewed by the reservation Superintendent, the delegated authority for the Secretary of the Interior. In section 7 of Article XII, the constitution provides that, when requested by the council, the Secretary of the Interior may waive any

requirement relating to the review of approval of resolutions (as contained in the constitution) subject to specified conditions and time periods. Id. at art. XII, § 7.

The constitution provides some protection for third-parties to contracts made with the Tribes, as contained in article XIV, which states: "No referendum conducted pursuant to the provisions of § 1 above shall serve to abrogate, modify, or amend any properly approved contract or agreement with third parties who are not members of the Mescalero Apache Tribe." Id. at art. XIV, § 3.

## **B. Fort McDermitt Paiute-Shoshone Tribe**

The Fort McDermitt Paiute and Shoshone Tribal constitution was ratified in 1936 and the Tribal corporate charter in 1945.

### Who Can Negotiate

The Constitution identifies the governing body of the Fort McDermitt Paiute and Shoshone Tribe as the Tribal Council. Fort McDermitt Paiute and Shoshone Const. art. III, § 1. The powers and duties of the Tribal council are enumerated as: the power to negotiate with the Federal, State, or local government(s); to veto any sale, disposition, lease or encumbrance of Tribal lands or other Tribal assets; to manage all economic affairs and enterprises of the Tribe in accordance with the terms of the Tribal charter. Id. at art. VI, § 1, para. a,c,e. The constitution also provides for review by the Secretary of the Interior and Superintendent of the reservation of any resolution or ordinance made by the council. Id. at § 4. Referendums can be called by fifteen qualified voters and the vote of the majority of the qualified voters in such a referendum is conclusive and binding on the Tribal council. Id. at art. VIII, § 1.

The Fort McDermitt Tribal Corporate Charter discusses the corporate powers of the Tribe as powers subject to any restrictions contained in the Constitution and laws of both the Tribe and the United States; such powers including the holding, managing, operating and disposing of property, real or personal, subject to a limitation that any land lease or permit within the boundaries of the reservation shall be made for a longer term than five years. Mescalero Corporate Charter sect. 5, para. b, subpara. 2. The Charter also empowers the Tribe to make and perform contracts and agreements. Id. at para. f.

### What May Be Negotiated

Article VII empowers the Tribal council to lease, with approval of the Secretary of the Interior, Tribal lands but limits that power to a determination by the council that it is clear that no Indian cooperative association or individual member of the Tribe is able or willing to use the land or pay a reasonable fee for such use. Id. at art. VII, § 3.

#### **C. Skull Valley Band of Goshute Indians**

### Who Can Negotiate

Since there is no Tribal constitution, the power to negotiate and approve any contracts or agreements rests in the General Council, which consists of the adult member population. The General Council has issued a blanket resolution delegating contractual authority to the Executive Committee comprised of the Chair, Vice-Chair and the Secretary.

### What May Be Negotiated

Since there is no constitution to guide what may and may not be negotiated, it follows that federal laws will supplant and section 25 of the U.S. Code allows for contracts with Indian Tribes and leasing of reservation lands subject to limitations therein contained (namely § 81 and § 415).

#### **D. Tonkawa Tribe of Indians of Oklahoma**

The Tonkawa Tribe was one of the first Tribes to establish a constitution under the Oklahoma Indian Welfare Act of 1936. The enrolled membership of the Tribe over the age of eighteen years comprise the governing body, the Tonkawa Tribal Council. Tonkawa Tribal Const. art. III. The Tribal Council officers are the President, Vice-President and the Secretary-Treasurer, all of whom make up the Tribal Committee. Id. at art. IV.

### Who May Negotiate

The Tonkawa Tribal constitution vests the Tribal Committee with the power to appoint subordinate committees and representatives, transact business and otherwise speak or act on behalf of the Tribe "in all matters on which the Tribe is empowered to act." Tonkawa Tribal Const. art. V, § 1.

The Tribal constitution provides the Tribal Committee power to transact business and speak on behalf of the Tribe but vests approval power with the Tribal Council, to be exercised by a majority vote of the council membership present at a meeting. Tonkawa Tribal Const. art. III.

### What May Be Negotiated

The Tribal constitution does not elaborate upon the exact nature of "all matters" or upon precisely what types of business or contracts the Tribe is willing or able to enter into. Since the Department of the Interior has approval power over contracts made by or with Indian Tribes, a safe assumption is that the only constraints placed upon the types of agreements outside parties are interested in entering into with the Tonkawas are those constraints placed upon them by federal law and the willingness of the Tribe.

The constitution's preamble states its intention to secure the rights, powers and privileges offered by the Thomas-Rogers Oklahoma Indian Welfare Act, 25 U.S.C. I 501-504 (originally enacted as the Act of June 26, 1936, ch. 831, I 1-4, 49 Stat. 1967). Section 501 pertains to the acquisition of agricultural and grazing lands for Indians, title to lands and tax exemptions. Section 502 covers purchases of restricted Indian land in Oklahoma. And Section 503 pertains to the organization of Tribes and bands, structure and procedure for adoptions of Tribal constitutions, charters of incorporation and the right of Tribes to participate in revolving credit funds. The section states that any recognized Tribe residing in Oklahoma shall have the right to organize, adopt constitution and by-laws or a charter of incorporation as proscribed by the Secretary of the Interior. 25 U.S.C. § 503. The section additionally states that a charter of any incorporated group, in addition to any powers which may be properly vested in a body corporate under Oklahoma laws, the right to participate in a revolving credit fund and enjoy any rights or privileges secured to any organized Tribe under § 461-479 of Title 25. Id.

The relevant section being § 476 relating to the organization of Indian Tribes. This action, a codification of the Indian Reorganization Act whose primary purpose was to encourage Tribes to organize and to redress the wrongs done by the General Allotment Act, reinforces the right of any Indian Tribe to organize, adopt appropriate constitutions and by-laws and provides a reiteration of those powers to be included within proposed constitutions. Section 476 explicitly states,

In addition to all powers vested in any Indian Tribe or Tribal council by existing law, the constitution adopted by said Tribe shall also vest in such Tribe or its Tribal council the following rights and powers: To employ legal counsel, the choice of counsel and fixing of fees to be subject to approval of the Secretary of the Interior; to prevent the sale, disposition, lease, or encumbrance of Tribal lands, interests in land, or other Tribal assets without the consent of the Tribe; and to negotiate with the Federal, State and local governments...

Those sections read in conjunction with the Secretary's approval power reinforces a presumption that while the constitution may not explicitly state its precise rights as it pertains to the alienation or leasing of lands and contracting with outside parties, that those rights are presumed by federal law. The more appropriate focus, however, being on whether any sort of potential contract would be passed by a referendum vote and approved by the federal bureaucracy.

## CONCLUSION

Sections 81 and 415 both cover contracts or agreements for the use of Tribal or Indian-owned trust lands under the "relative to Indian lands" and the lease requirement provisions in these respective statutes. Approval of such is discretionary on the part of the Secretary of the Interior and the Commissioner of Indian Affairs, or delegated B.I.A. officials. While the approval of leases and contracts has been historically focused almost entirely on fiscal concerns, the scope of secretarial approval review has broadened to encompass notions of trust responsibility and environmental concerns. And while the review of agency action seems to be cursory in many instances, review of an agency decision in regards to siting of a repository or interim storage facility would be more in-depth and questions regarding the comprehensiveness of the scope of secretarial review will be closely addressed by any reviewing forum.

While the Department of the Interior, and necessarily the Bureau of Indian Affairs, has been characterized as being one invested with the duty to encourage Tribal self-determination,

consistent with its trust duty, which would seem to encourage a deferential approval attitude towards Tribal wants, the perception has remained that the Department has been particularly pliant in the wake of any strong political winds, often to the detriment of Tribal interests. However, the new Assistant Secretary has come from a strong Tribal government background. The combination of a new administration and strong new cabinet members may well indicate a new reawakening to Tribal sovereignty, or at least a more respectful attitude towards evidence of Tribal wants and capabilities, as would be evident in a Tribal referendum vote that will most surely be required to contract with any Tribe to site a nuclear facility. This is promising when coupled with a policy that allows for department discretionary power over Tribal initiatives, emerging many times from leasing arrangements intra-Tribally, inter-Tribally and with non-Indian investors.

## **APPENDIX**

**Mescalero Apache Tribe**

**Skull Valley Band of Goshute Indians**

**Fort McDermitt Paiute and Shoshone Tribe**

**Tonkawa Tribe of Indians of Oklahoma**

**Mescalero Apache Tribe**  
Wendell Chino, President  
Tribal Council - 8 Members

**Legislative, Executive and Judicial Branches --**

1. Legislative Branch: 8 member Tribal council; legislation must be signed by the President to be effective; vetoed legislation can be overridden by 2/3's vote; voters can petition for referendum but cannot abrogate or change any properly approved contract.
2. Executive Branch: President, Vice President; Secretary and Treasurer appointed by the President and confirmed by council.
3. Judicial Branch: Two level court system; judges appointed by President and confirmed by council.

**Contracting Processes --**

Contracts are executed by President but are decisions of the legislature (Council); Art XIV, § 3 provides protection for contractors prohibiting referendum from abrogating a valid contract with nonmember entities.

**Authority of Tribal Officials --**

President, as Chief Executive Officer, can:

Serve as Tribal council chairperson; establish boards or committees subject to council approval; serve as Tribal contracting officer following council approval of contract; approve or veto legislation; execute Tribal legislation.

Vice President, can:

Exercise all powers of the President in his/her absence; vote only in case of tie or to make a quorum for Tribal council; committees; fulfill other duties assigned by President with consent of council.

Revised Jan 12, 1965. As amended through May 31, 1985.

....

**Art III - Reservation**

§ 1 Title to reservation lands shall remain Tribal property...The control of reservation lands, and of assignments or leases thereof, and of other Tribal property, shall be in the Tribal council, subject to applicable Federal authority, and regulated by ordinances not inconsistent with or contrary to this Constitution.

....

**Art VIII - Part I - The Legislative Department; Composition and Qualifications**

§ 1 The legislative powers of the Mescalero Apache Tribe shall rest in the Mescalero Apache Tribal Council...

§ 2 The Tribal council shall consist of eight members...

....

**Art XI - Powers of the Tribal Council**

§ 1 The Mescalero Apache Tribal Council shall have the following duties and powers subject to all applicable laws of the United States, this constitution, and the regulations of the Secretary of the Interior --

- (a) To veto the sale, disposition, lease, or encumbrance of Tribal lands...that may be authorized by any agency of government without the consent of the Tribe; and any...sale, grant, or lease of any portion of the reservation, or the grant of any right to use of lands or other assets, or the grant of relinquishment of any water or mineral rights or other natural or fiscal assets of the Mescalero Reservation, are hereby reserved to the sanction of the Tribal council.
  
- (b) To encumber, lease, permit, sell, assign, manage or provide for the management of Tribal lands...and to regulate the use and disposition of Tribal property of all kinds.

- (c) To protect and preserve the property, wildlife and natural resources of the Tribe, and to regulate the conduct of trade and the use and disposition of Tribal property upon the reservation, provided that any ordinance directly affecting nonmembers of the Tribe shall be subject to review by the Secretary of Interior.
- (d) To adopt and approve plans of operation to govern the conduct of any business or industry that will further the economic well-being of the members of the Tribe, and to undertake any activity of any nature whatsoever, not inconsistent with Federal law or with this constitution, designed for the social or economic improvement of the Mescalero Apache people, such plans of operation and activities to be subject to review by the Secretary of the Interior.
- (e) To...transfer Tribal property...to Tribal corporations, associations, commissions or boards for such use as the Tribal council may determine...
- (f) To authorize the president to negotiate contracts, leases and agreements of every description...subject to review or approval by the Secretary of the Interior where such review or approval is reqd by statute or regulations; Provided, that all contracts, leases and agreements so negotiated shall be subject to approval by the Tribal council.
- ....
- (h) To...charter Tribal corporations, and to charter and regulate other subordinate organizations for economic and other purposes, subject to review by the Secretary of the Interior when required by Federal law or regulation.
- (i) To represent the Tribe and act in all matters that concern the welfare of the Tribe and to make decisions...
- (j) To negotiate with the Federal, State, or local governments, and to advise and consult with representatives of the Interior Department on all activities that may affect the reservation, and in regard to all appropriation estimates and Federal projects for the benefit of the Tribe before such estimates or projects are submitted to the Bureau of Budget and to Congress.
- ....
- (t) No authority or power contained in this constitution may be delegated by the...Tribal Council to Tribal officials, committees, or associations to carry out any

function or do anything for which primary responsibility is vested in the Tribal council, except by ordinance or resolution duly enacted by the Tribal council.

....

## **Art XII - Review and Approval of Enactments**

- § 1 Every resolution or ordinance passed by the Tribal council shall, before it becomes effective, be presented to the president for approval within five days following the date of its passage. If he approves he shall sign it within ten days following its receipt...If he does not sign the enactment of the Tribal council, he shall, at the next meeting of the Tribal council following its submittal to him for signature, return it...with a statement of his objections. It shall thereafter not become effective unless it is again approved by two-thirds of the members present, providing that those present constitute a quorum of the Tribal council.
- § 2 Every resolution or ordinance which...is subject to review by the Secretary of the Interior, shall be, within ten days following its approval by the president or, in the event of a presidential veto, by a two-thirds majority of the Tribal council as provided in §1 of Art XII above, presented to the Superintendent...Within ten days after receipt thereof, the Superintendent shall approve or disapprove the same.
- § 3 If the Superintendent shall approve any resolution or ordinance subject to review by the Secretary of the Interior, it shall thereupon become effective, but the Superintendent shall transmit a copy of the same, bearing his endorsement, to the Secretary...who may within ninety days from the date of such approval by the Superintendent rescind the said resolution or ordinance for any cause, by transmitting notification to the President...of such rescission.
- § 4 If the Superintendent shall refuse or fail to approve...within ten days after its receipt, he shall advise the Tribal council of his reasons therefor, and if the reasons appear to the Tribal council to be insufficient it may, by majority vote, refer the resolution or ordinance to the Secretary...who shall, within ninety days from the date of receipt, approve or disapprove the same in writing; Provided, however, that such resolution or ordinance shall become effective ninety days after the date or receipt unless the Secretary...shall disapprove in writing such resolution or ordinance.

§ 5 Any resolution or ordinance that is...subject to the approval of the Secretary...shall be presented to the Superintendent who shall, within ten days after receipt thereof, transmit the same to the Secretary...with his recommendation for or against approval.

§ 6 The said resolution or ordinance shall become effective when approved by the Secretary of the Interior.

§ 7 Upon request by the Tribal council, the Secretary...may waive any requirement contained in this constitution relating to review or approval of resolutions and ordinances, or to the exercise of other powers of the Tribal council. Such waiver shall be for such period of time and under such conditions as the Secretary of the Interior may prescribe.

....

#### **Art XIV - Referendum**

§ 1 Upon receipt of petition signed by at least thirty percent of the qualified voters of the Tribe and filed...demanding a referendum thereon, any proposed or enacted resolution, ordinance or other action of the Tribal council shall either be repealed by the Tribal council or be submitted by it to the electorate for decision by the Tribe in a general election to be held within thirty days after receipt of the petition. The referendum shall be conclusive only if at least thirty percent of the qualified voters cast their ballots therein.

§ 2 When a majority of the members of the Tribal council shall request a referendum on any proposed or enacted resolution...or another action of the Tribal council, the Tribal council shall call an election within thirty days thereafter at which the members of the Tribe shall approve or disapprove, by majority vote, the ordinance or action in question; Provided...that such ...shall be effective only in the event thirty percent or more of the qualified voters cast their ballots in such election.

§ 3 No referendum conducted pursuant to the provisions of § 1 above shall serve to abrogate, modify, or amend any properly approved contract or agreement with third parties who are not members of the Mescalero Apache Tribe.

....

**Art XVII - Quorum; Vote**

§ 1 Six members of the Tribal council shall constitute a quorum of the membership thereof, provided that the vice-president of the Tribe may vote as a member of the Tribal council throughout the whole of that meeting only if a quorum is not otherwise present.

....

**Art XVIII - Ordinances and Resolutions**

§ 1 All final decisions of the Tribal council, on matters of permanent interest to members of the Tribe and necessary to the orderly administration of Tribal affairs, shall be embodied in ordinances...

...

**Art XXII - Duties of Officers**

§ 1 The President...shall exercise the following powers as the chief executive officer of the Tribe:

(a) The president shall serve as the Chairman of the...Council, but he shall not have the right to vote on any issue except to break a tie vote of the council in the absence of the vice-president.

....

(c) The president, subject to the approval of the Tribal council, may establish such boards, committees or sub-committees as the business of the council may require, and shall serve as an ex-officio member of all such committees and boards.

(d) The president shall serve as contracting officer for the Mescalero Apache Tribe, following approval of all contracts by the Tribal council.

....

In recent years, Congress has amended § 415 conferring to pueblos in New Mexico the authority to have 99-year leases on land outside the boundaries of the reservation, requiring Secretarial approval.

**Skull Valley Band of Goshute Indians**

Lawrence Bear, Chair

Richard Bear, Vice-Chair

Executive Committee:

Chair, Vice-Chair and Secretary

Contractual Authority No Tribal Constitution. Tribal authority rests in a General Council, consisting of all adult members. General Council has issued a blanket resolution delegating contractual authority to Executive Committee.

Membership Tribal membership at 105. 54 members are 16 years and older. Determine membership via Tribal ordinances for enrollment.

**Fort McDermitt Paiute and Shoshone Tribe**

Chair, Helen Snapp

Vice Chair, Rodney Snapp

Council - 6 members

**Constitution and Bylaws**

**Approved July 2, 1936**

....

**Art III            Governing Body**

§ 1     The governing body of the Fort McDermitt Paiute and Shoshone Tribe shall consist of a council known as the Fort McDermitt Tribal Council.

....

**Art VI            Powers and Duties of the Tribal Council**

§ 1     **Enumerated powers.** -- The Fort McDermitt Tribal Council of the Fort McDermitt Indian Reservation shall exercise the following powers, subject to any limitations imposed by the statutes or the Constitution of the United States.

(a)     To negotiate with the Federal, State, and local governments.

....

(c)     To veto any sale, disposition, lease or encumbrance of Tribal lands, interests in lands, or other Tribal assets of the Tribe.

....

(e)     To manage all economic affairs and enterprises of the Fort McDermitt Paiute and Shoshone Tribe in accordance with the terms of a charter that may be issued to the Tribe by the Secretary of the Interior (so recognized in 1945).

....

(g)     To charter subordinate organizations for economic purposes and to delegate to such organization, or to any subordinate boards or officials of the Tribe, any of the foregoing powers, reserving the right to review any action taken by virtue of such delegated power.

....

§4     **Manner of Review.** Any resolution or ordinance which by the terms of this constitution, is subject to review by the Secretary of the Interior, shall be presented to the Superintendent of the Reservation, who shall, within 10 days thereafter, approve or disapprove the same.

If the Superintendent shall approve any ordinance or resolution, it shall thereupon become effective, but the Superintendent shall transmit a copy of the same bearing his endorsement to the Secretary of the Interior, who may, within 90 days from the date of the enactment, rescind the said ordinance or resolution for any cause, by notifying the Tribal Council of such decision.

If the Superintendent shall refuse to approve any ordinance or resolution submitted to him, within 10 days after its enactment, he shall advise the Council of his reasons therefor. If these reasons appear to the Council insufficient, it may by a majority vote, refer the ordinance or resolution to the Secretary of the Interior, who may, within 90 days from the date of its enactment, approve the same in writing, whereupon the said ordinance or resolution shall become effective.

....

**Art VII      Land**

....

**§ 2      Tribal Lands.** Unallotted Tribal lands cannot be mortgaged or sold, but can be leased or otherwise used by the Tribe.

**§ 3      Leasing of Tribal Lands.** May be leased by the Tribal Council, with the approval of the Secretary of the Interior, for such periods of time as are permitted by law. No lease of Tribal lands to a nonmember shall be made by the Tribal Council unless it shall appear that no Indian cooperative association or individual member of the Tribe is able and willing to use the land and to pay a reasonable fee for such use.

....

**Art VIII      Referendum**

**§ 1**      Upon a petition of at least 15 qualified voters of the Fort McDermitt Paiute and Shoshone Tribe a referendum may be demanded on any enacted or proposed ordinance or resolution of the Fort McDermitt Tribal Council, and the vote of the majority of the qualified voters in such referendum shall be conclusive and binding on the Tribal Council.

....

**Bylaws --**

....

**Art IV Meetings and Procedures**

....

§ 4 At any special or regular meeting of the Tribal Council two-thirds of the Council members shall constitute a quorum and without such a quorum the chairman shall adjourn the meeting.

§ 5 Special meetings of the Council shall be held upon written request of four members of the Council or by petition signed by 15 legal voters of the Tribe, such written request to be filed with the chair[person] or secretary of the Council who shall notify the Council members at least 24 hours before the date of such Council meetings.

....

**Corporate Charter**

**Ratified June 20, 1945**

A federal corporation chartered under the Act of June 18, 1934.

....

**Membership ....**

3. The Fort McDermitt Paiute and Shoshone Tribe shall be a membership corporation. Its members shall consist of all persons now or hereafter members of the Tribe, as provided by its duly ratified and approved Constitutions and By-laws.

....

**Corporate**

5. The Tribe, subject to any restrictions **Powers** contained in the Constitutions and the laws of the United States, or in the Constitutions or By-laws of the said Tribe, shall have the following corporate powers, in addition to all powers already conferred or guaranteed by the Tribal Constitutions and By-laws:

....

(b) To...hold, manage, operate, and dispose of property of every description, real or personal, subject to the following limitations:

....

(2) No leases or permits...covering any land or interests in land now or hereafter held by the Tribe within the boundaries of the Fort McDermitt Indian Reservation shall be made by the Tribe for a longer term than five years, and all such leases, permits or contracts must be approved by the Secretary of Interior or by his duly authorized representative; but mineral leases or any leases requiring substantial improvements of the land may be made for longer periods when authorized by law.

(3) No action shall be taken by or in behalf of the Tribe which in any way operates to destroy or injure Tribal grazing lands or other natural resources of the...Reservation...All leases or permits relating to the use of Tribal grazing lands shall conform to regulations of the Secretary the Interior authorized by § 6 of the [IRA], with respect to range carrying capacity and other matters therein specified. Conformity to such regulations shall be made a condition of any such lease or permit whether or not such agreements requires the approval of the Secretary of the Interior, and violation of such condition shall render the agreements revocable, in the discretion of the Secretary of the Interior.

....

(e) To engage in any business that will further the economic well-being of the members of the Tribe or to undertake any activity of any nature whatever, not inconsistent with law or with any provisions of this chapter.

(f) To make and perform contracts and agreements of every description, not inconsistent with law or with any provisions of this charter, with any person, association, or corporation, with any municipality or any county, or with the United States or State of Nevada ...Provided, That all contracts involving payment of money by the corporation in excess of \$300 in any one fiscal year shall be subject to the approval of the Secretary of the Interior or his duly authorized representative.

....

(i) To sue or to be sued in courts of competent jurisdiction within the United States; but the grant or exercise of such power...shall not be deemed ta consent by the Tribe or by the United States to the levy of any judgement, lien or attachment upon the property of the Tribe other than income or chattels especially pledged or assigned.

- (j) To exercise such further incidental powers, not inconsistent with law, as may be necessary to the conduct of corporate business.

### **Termination of Supervisory Powers**

6. Upon request by the Fort McDermitt Tribal Council for the termination of any supervisory power reserved to the Secretary of the Interior under Sections 5(b)(2)...5(f)...and Section 8 of this charter, the Secretary the Interior, if he shall approve such request, shall thereupon submit the question of such termination for ratification by the Tribe. The termination shall be effective upon ratification by a majority vote of the adult members of the Tribe residing on the Reservation, at an election in which at least thirty percent of the eligible voters vote...

**Tonkawa Tribe of Indians of Oklahoma**  
President, Virginia Combrink  
Vice-President, Melvin Allen  
Council - All adult members  
P.O. Box 70 Tonkawa, Oklahoma 74653

**Constitution and By-laws**

**Ratified April 21, 1938**

**Preamble**

We, the Tonkawa Tribe of Oklahoma, in order to promise our common welfare and to secure to ourselves and our descendants, the rights, powers and privileges offered by the Thomas-Rogers Oklahoma Indian Welfare Act (49 Stat. 1967), approved June 26, 1936, do establish this organization and adopt the following constitution and by-laws pursuant to that Act.

....

**Art III - Membership of Council**

The supreme governing body of the Tribe shall be the Tonkawa Tribal Council. The membership of the Council shall be all members of the Tonkawa Tribe, both males and females, eighteen (18) years of age or older. All action of the Council shall be determined by a majority vote of the membership present.

**Art IV - Officers**

The officers of the Tribe shall be the President, Vice-President and Secretary-Treasurer. The term of office shall be for two years, except as provided in Section 2 of Article V.

**Art V - Tribal Committee**

§ 1 There shall be a Tribal Committee which shall consist of the officers as provided in Article IV. This Committee shall have power to appoint subordinate committees and representatives, to transact business and otherwise speak or act on behalf of the Tribe in all matters on which the Tribe is empowered to act. The powers of the Tribe shall be set forth in details in the Corporate Charter to be requested by the Tribal Committee.

§ 2 The President, Vice-President and Secretary-Treasurer so selected shall constitute the Tonkawa Tribal Committee...

....

**By-laws**

**Art I - Duties of Officers**

§ 1 The President shall preside at all meetings of the Council and of the Tribal Committee. He shall have general supervision of the affairs of the Council and of the Tribal Committee and shall perform all duties appertaining to the office of the President.

....

**Art III - Meetings**

....

§ 2 Special meetings of the Council may be called at the discretion of the President, and shall be called by him upon the written request of the majority of the Tribal Committee or upon the written request of ten members of the Tribe: Provided, That at least five days' notice shall be given in each instance.

§ 3 The regular meetings of the Tribal Committee shall be held on the first Monday in each month unless otherwise provided by resolution.

§ 4 Special meetings of the Tribal Committee may be called by the President at his discretion, and shall be called by him upon the written request of two members of the Tribal Committee.

....

**Art IV - Quorum**

§ 1 Twelve members of the Council shall constitute a quorum to transact business at any meeting.

§ 2 Two members of the Tribal Committee shall constitute a quorum to transact business at any meeting.

**COUNCIL OF ENERGY RESOURCE TRIBES**

**PUBLIC SERVICE COMPANY OF COLORADO**

**1993 SUMMER INTERNSHIP PROGRAM**

**SHAWN MCNAUGHTON, INTERN**

- **PERSONAL STATEMENT**
- **RESUME**
- **REPORT**

## Shawn McNaughton

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My interest in environmental issues began while researching a paper on the effects of acid rain on trout species in lakes of the Adirondack Mountains. One of my experiences while working for a waste disposal firm in Niagara Falls, N.Y. was seeing how the process of industrial hazardous waste recycling enters the environment. Until the late 1970s, there was little concern for innocuous municipal landfills except for the unsightliness of the neighborhood dump. Local communities weren't ready to deal with the threat of toxic poisoning of their air, water and land resources. The smoke signal was yet to be seen.

As a Mohawk native from the Six Nation Indian Reserve near Brantford, Ontario, Canada, my environmental concerns were bound together by a longing for the pristine beauty of nature my ancestors once felt, and by a non-traditional adaption to the comforts of the cheap and sophisticated, but highly urbanized way of living.

After attending high school, I worked for a couple of years before deciding to return to school for an associates degree in drafting technology. After graduation, I worked for a major automobile component manufacturer detailing automobile air conditioning parts. A downturn in the automobile industry forced major reductions in the company's workforce. Facing new challenges and career paths, I decided to enroll in the geology program at Buffalo State College. My major was in environmental science with a minor in chemistry. While at college, I joined the Native American Student Services program and became aware of the need of the higher education among Native peoples. It was there I met other Native Americans who sought opportunities for the betterment of our culture through education. It was there through the programs available to me, that I became aware of the Council of Energy Resource Tribes' internship program.

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**Objective:** To obtain a position as an environmental project manager.

**Qualifications:** Experienced teamworker; able to work cooperatively or independently.  
Highly inquisitive, creative and resourceful.  
Management talent for "seeing the whole picture."  
Take pride in achieving the best possible results.  
Keen perception for extracting important data.

**Work Experience:**

**June 1993 to  
August 1993**

**Internship, Council of Energy Resource Tribes/Public Service  
Company of Colorado, Denver, CO.**

- Participated in a Phase I on-site assessment interview with James L. Grant consultants at the Zuni Production Shop Facility.
- Prepared a project status report for the Wattenburg Compressor Stations' Underground Storage Tank Closure plan.
- Participated in project management sessions with Environmental Services' department staff.
- Learned REOPT Software for remediation technology information systems.
- Reviewed JLG's Phase I Assessment Proposal for the Zuni facility remediation plan.
- Inspected Radian Corporation's installed Soil Vapor Extraction and Air Sparging Unit for remediation work at the Boulder service center.

**June 1987 to  
December 1988**

**Harrison Radiator, Division of GM, Lockport, NY.**

- Prepared HVAC detail and module assembly part drawings.
- Updated MDCAs on assembly drawings per GM standards.
- Copied and redrafted all 1990 Saturn HVAC detail drawings Using CADAM and the EDS file systems.
- Participated in design team discussions for updated and development of HRD design guide standards.

**Employment History:**

- Summer 1993      Summer Environmental Specialist Intern, Council of Energy Resource Tribes, placed at Public Service Company, Denver, CO.
- 1990 to 1993      Full-time student, Buffalo State College, Buffalo, NY.
- Summer 1991      Print shop, A.J. Laux Company, Lockport, NY.
- 1989 to 1990      Construction, Delta Masonry Corporation, Lockport, NY.
- 1987 to 1989      Drafting, Harrison Radiator Corporation, Lockport, NY.

**Education:**

Bachelor of Science, Geology, Environmental Science Concentration, 1993.  
State University College, Buffalo, NY.

Related courses: Sedimentation, Stratigraphy, Paleontology, Organic Chemistry, Physics, Calculus, Fortan and Optical Mineralogy.

Associates in Applied Science, Drafting Technology, 1987.  
Niagara Community College, Sanborn, NY.

Related courses: Process Piping, Pressure Vessel Design, Fluid Mechanics and Computer Aided Design Drafting.

**Other Training and Education:**

Waste Sampling, Red Rocks Community College, Denver, CO, July 17, 1993.

Process Safety Management, Public Service Company, Denver, CO, July 16, 1993.

Geometric Dimensioning and Tolerancing, Harrison Radiator Division of GM, Lockport, NY, July 1988.

**COUNCIL OF ENERGY RESOURCES TRIBES**

**1993 SUMMER INTERNSHIP REPORT**

**PUBLIC SERVICE COMPANY OF COLORADO**

**Prepared by**

**SHAWN MCNAUGHTON**

**Intern**

**August 1993**

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## **I. Introduction**

The Council of Energy Resource Tribes' Internship Program at the Public Service Company was created for obtaining skills in environmental management, EPA rules and regulation facilitation. These skills cover liability prevention and remediation programs associated with current and former business operations. Corporate goals reflect a strong commitment to health and safety programs in the workplace. Compliance requirements at all power plants, service centers and storage sites remain top priority within administrative, operational and production duties of the company. This information was gathered from interviews with environmental services staff, division managers as well as reams of environmental law statutes, engineering articles, textbooks, newspaper articles, environmental health and safety guidelines, the Denver Public Library and proposals by consulting firms, prospective vendors and engineering personnel. A summary of PSCos history, electric and gas operations, evolution of Environmental Services and Governmental Affairs, Federal statutes, EPA regulations and company practices are included in this report.

## **II. History of Power Production**

In the 1920's, City Service Company was comprised of several small utilities. There were 66 individual retail owners supplying power mostly to rural townships. Coal was the source for power, supplying electricity for the many citizens who settled here in the late 1800's. Natural gas deposits underground lighted the streets and homes in many areas of Denver. The late 1930's saw Public Service Company become a wholly owned investor operation.

Hydro-electric generation in the upper elevations is restricted to local production demands and contributes only about 1% of total electric power output. There are 25 electric generating stations across the state.

Today, almost all electricity generated statewide is produced by burning low-sulfur coal. Stations located at Denver include the four unit 550 MW Cherokee plant and a combined triple unit 150 MW Arapaho plant. The single unit 500 MW Pawnee plant located at Brush serves the northeast of Colorado while a double unit 350 MW Comanche plant at Pueblo serves southeastern Colorado. A non-operating nuclear plant located at Fort St. Vrain produced 330 MW of electricity until decommissioning began in 1989 for conversion to a 295 MW high temperature cogeneration plant utilizing double-fired gas-steam turbines.

There are 28 gas-producing supply stations across the state. Systems consist of transmission of natural gas from interstate pipeline companies for shipment to local customers in industry and commerce. Colorado Interstate Gas is the largest natural gas supplier. They transport a high-grade product usually mixed with lower grade gas prior to distribution. A 5-15 % oxygen mixture is required for clean burning. The water in the gas must be removed prior to sale or it will become contaminated and unusable.

The drilling, installation and transmission of gas from the wellhead to the suppliers is big business and remains very competitive. The initial gas quality is a factor in determining market value. Hydrocarbons, carbon dioxide and water must be removed as a more efficient product streamlines and decreases operating costs. The gas is cooled to about 0 degrees at compressor stations for distribution to retail customers.

Peak product demands call for storing approximately 2/3 of the reserves underground. Tracking systems monitor supply lines, valves, fittings and pressure changes for any leaks detected within distribution systems.

Many options exist for the customer to choose from including special delivery routes from distribution points, optional supply centers, comparable market rates, and large industrial customers that promote growth and competition among interstate suppliers.

### **III. Environmental Services and Governmental Affairs**

Environmental Services began as the Electric Power Research Institute in 1983 and did most of the EPA work on power plant smokestacks. The Clean Air Amendment of 1977 forced company business including all power producing plants to comply with air emission standards mandated under Colorado Federal Regulations.

Current projects include company practices that have fallen under EPA and federal guidelines as hazardous waste sites or have been targeted in reduced air quality reports released by the government.

Specifically, the Lowry landfill was designated as a Superfund hazardous waste site by the EPA and CERCLA. This former trash disposal dump stored neutralized liquids from boiler cleaning processes used at Public Service Company facilities. Total cleanup was \$536 million, payable by consent decree.

The Elitch Gardens Amusement Park was the site of a former manufactured gas plant when upon investigation, revealed wide spread contamination of low-level hazardous wastes. Designated as the Potentially Responsible Party for past use at the site, PSCo has agreed to pay \$2 million of the cleanup costs.

A Phase II environmental assessment ordered by the EPA at the Barter Metals Company has revealed wide spread contamination of low-level hazardous substances disposed approximately 30 years ago when the company sold scrap metals and electrical equipment to Barter. The total costs for the cleanup was \$4 million.

In addition to designated Superfund liability status, the company has participated in emission standard reduction plans required under the Federal Clean Air Act Amendment of 1990. This calls for significant reductions in sulfur dioxide emissions from burning coal with less than 0.5% sulfur.

The Metro-Denver Brown Cloud Study is a report released by Governor Romer outlining a ten point recommendation program aimed at reducing SO<sub>2</sub> and NO<sub>x</sub> emissions. The program offers voluntary incentives such as reducing nitrous oxide emissions at coal-burning facilities, carpooling during working hours, and converting gasoline burning vehicles to propane.

#### **1. Process Safety Management**

The Occupational Safety and Health Administration (OSHA) requires employers to develop comprehensive management plans to assess and manage workplace risks. Process Safety Management goals are to implement OSHA standards into programs simple enough to understand and use at PSCo facilities. Some of these are a continuation of safety concepts used for years by industrial engineers and managers under programs initialized by the American National Standards Institute and the American Society of Mechanical Engineers.

Hazards in the workplace can be approached using assessment techniques targeting potential safety hazards during process operations rather than focusing on failure analysis as the center of systems safety.

## **2. PCB Management**

The EPA developed a program specifically under TSCA for the regulation and handling of PCB waste AND fluids containing PCB's. Polychlorinated biphenyls or PCB's were first made in 1929 as an additive to chlorinated benzene for their low flammability and chemical stability. Dielectric fluids, known by the trade name "askarel" were used in transformers containing capacitors and bushings because of their cooling capacity.

The EPA made two important decisions concerning the use, manufacture, distribution and sale of PCB's. They are:

- a. Any exposure to detectable amounts of PCB's may pose an unreasonable risk to human health and the environment.
- b. PCB's could only be used in a totally enclosed manner with the lowest acceptable level set by the American Standards Technical Manufacturers at 2 parts per million. (Levels less than 2ppm obtainable by analytical laboratories are considered equivalent to zero PCB contaminant level.) Levels containing PCB's 2ppm or more must be totally enclosed or excluded from the standards. All equipment, fluid or soiled debris containing PCB's must be identified, marked and set for recycling, treatment or disposal.

Specifically, all dielectric fluid found in equipment before July 1, 1979 containing PCB levels of 500ppm or more must be removed and equipment found with PCB levels of 50ppm or more must be taken out of service and disposed of by August 1, 1984. All equipment manufactured after this date can contain PCB fluid levels of less than 2ppm.

All PCB-laden equipment located near restaurants, stores, barns or stockyards have to be replaced or removed by 1989. All PCB cooled capacitors located in nonenclosed areas have to be removed entirely. As a result, PCB regulations fit more like those governing hazardous waste.

If possible, EPA attempts to avoid situations where two sets of regulations governing the same substance or activity in the same way. Mixing any waste containing PCB is a violation. The mixing of PCB's with other wastes will result in a no-PCB or lower concentrated PCB item regulated more stringently, thus

making disposal more difficult and costly. Also, mixing may invalidate records indicating PCB content and require retesting of equipment, fluid or debris.

Regulation of hazardous waste may occur from mixing hazardous waste with PCB waste. When PCB's become contaminated or get mixed with hazardous waste, they must be regulated under RCRA as a hazardous waste and by TSCA regulations. If this occurs, then storage limits become a problem.

All shipments of equipment, fluid or debris containing PCB's are subject to U.S. DOT regulations requiring; the use of DOT approved containers, marking and labeling, vehicle placards if certain quantities are being transported, a shipping paper and contamination sheet to accompany the load. Failure to follow rules can result in fines to the individual operator.

### **3. Waste Minimization**

The Hazardous and Solid Waste Amendment of 1984 created the need for a solid hazardous waste reduction program by reducing or elimination of hazardous waste at the source rather than managing wastes generated directly. These measures should take priority by eliminating or reducing in-house processes, recycling, operational modifications, raw material substitutions, and by using good operating practices.

Therefore, the EPA has established a policy under RCRA statutes regarding hazardous waste minimization encouraging generators of hazardous waste treatment, storage, or disposal facilities, waste minimization methods by reduction at the source and environmentally sound recycling as the most effective and preferable option for waste minimization.

## **IV. The Need for Environmental Rules and Regulations**

The threat of environmental health hazards and safety concerns over the dangers associated with former hazardous waste sites created the need for more stringent disposal requirements for industry. Environmental disasters such as Love Canal toxic waste leak in New York and the Bophal, India methyl-isocyanide leak forced Congress to act on the potential threat to human health and safety by passing laws specifically regulating the storage, handling and disposal of toxic wastes and hazardous substances. Also, new permit rules for both hazardous and

municipal landfills were legislated to enforce illegal disposal practices, such as the dumping of known carcinogens DDT and PCB.

## **1. Clean Air Act**

The legislation and passing of the Clean Air Act in 1970 gave the Environmental Protection Agency the authority to set standards on sulphur dioxide and nitrous oxide emissions by fossil-fuel burning plants thought to endanger human health and promote undesirable effects on the environment such as smog, acid rain and atmospheric ozone depletion.

Sulfur dioxide forms when sulfur gas combines with oxygen during burning. Nitrous oxide gases form during combustion of air with coal. About 99% of emissions is fly-ash particles collected in bag houses adjacent to the furnaces. Of this, only 5% of the remaining particulates are emitted. SO<sub>2</sub> and NO<sub>x</sub> emissions are controlled by burning low-sulfur coal, using less oxygen and temperature reductions, staging cycles for efficient burning and cleaning combusted gases.

Amendments to the CAA of 1970 included comprehensive provisions for significant reductions of unregulated SO<sub>2</sub> and NO<sub>x</sub> emissions. Specifically, these goals call for a 15.2 million ton reduction per the 1977 amendment by 1990 to 8.9 million ton SO<sub>2</sub> reduction and a 2 million NO<sub>x</sub> reduction by the year 2000. All told, a reduction of 39 million tons of SO<sub>2</sub> and NO<sub>x</sub> emissions will cost the public between \$5-7 billion.

There are three major components for particulate emissions. These are;

- a. The National Ambient Air Quality Standard set limits on specific pollutants put into the air and is controlled by local governments for the health, safety and protection of local environs.
- b. The New Source Performance Standards are strict standards for particulate emissions on new plants based on existing standards used by old plants and cannot fall below NAAQS levels.
- c. The Prevention of Significant Deterioration rule is specifically designed for new facilities for the purpose of maintaining a cleaner than usual air quality regardless if previous standards set by NAAQS and NSPS are below acceptable levels. Under the 1990 amendment emission allowances are awarded to all utility powerplants. SO<sub>2</sub> reductions per the NAAQS regulations provide economic

incentives for exceeding minimum emission levels in addition to restricting emissions set for the hardest hit utilities.

## **2. Clean Water Act**

The Clean Water Act of 1977 is a federal law passed by Congress that gives the EPA authority to set water pollution standards. This was amended from the Federal Water Pollution Control Act for the enforcement and rigorous control of toxic water pollutants. The Marine Protection, Research and Sanctuaries Act is an amendment for the prohibition of offshore dumping of industrial wastes and sewage sludge.

The law insures a safe water quality standard by requiring coal-burning utilities pre-treat slurry waste before discharging into public waters. The Colorado Department of Health issues all water discharge permits for public utility wastewater discharged into surface, streams or lake waters as part of water quality management programs imposed by the state implementing water quality management programs.

Many conditions must be met before a permit is issued. Among them is Whole Effluent Toxicity testing or WET testing. This test targets any inorganic metals, volatile organic compounds and PCB contaminant levels found in amounts excessively harmful to human, animal, plant and aquatic life.

The flathead minnow and the water flea are two species of aquatic life considered benchmark examples used to determine contaminant level thresholds for life capable of withstanding toxicity levels inhabited by these fauna. Efforts to reduce the amount of toxic contaminants in slurry discharges are encouraged through waste minimization and pollution prevention programs.

## **3. Endangered Species Act**

In 1973 authority was granted by the legislature for the protection of threatened and endangered species. Specifically, the law enhanced the survival of natural habitats through strict control of land development and natural resources for wild animal species that have been depleted. Enforcement is provided by the U.S. Fish and Wildlife Federation and protects all native and non-native fish, birds and game. Because over 65% of Colorado is declared public land, the goals of wildlife management inhibit alteration projects resource lands that threaten and endanger wildlife.

The Division of Wildlife, Department of Natural Resources for the State of Colorado has the authority for enforcing laws for protecting threatened and endangered species as well as enhancing the survival of existing species. A threatened fish, the greenback cut-throat trout, is a subspecies of the more common cut-throat trout listed separately from other subspecies because of some genetic differences and having distinct population segments within general population groups.

The Endangered Species Reform Act Amendment is currently up for reauthorization by Congress. This proposal seeks to improve, among other things, conflicts risen over the years because the number of species listed for protection has increased from a couple of hundred to seven hundred listed species. Almost 4000 candidate species from every state await listing.

#### **4. National Environmental Policy Act**

The National Environmental Policy Act was created in 1969 for maintenance and protection of public lands by the Federal government and insures against overdevelopment, misuse or wildlife incursions through improvement, preservation, coordination and enhancement plans for our natural resources. The law seeks, among other things, to promote conditions for continuous harmony between man and nature.

Under NEPA, the Bureau of Land Management issues permits for any proposed changes to public land. An impact statement is a thorough study of a federal property assessing within reason any significant disruption to social, economic, cultural, historic, religious and/or wildlife activities taking into account the need for the permit and alternative proposals. The purpose of the study is to determine whether any proposed industrial, commercial, or recreational development project warrants review. If a review is granted, a hearing must be filed within a time specified on the permit application allowing for contingency plans. If there are no objections from opposing parties, the BLM reserves the right to reject any permit by authority of the "no alternative " plan.

## **5. Toxic Substance Control Act**

Prior to 1976, thousands of chemicals went unregulated for the potential threat to human health or to the environment. Of the thousands of chemicals developed annually, about one thousand reach production in commercial quantities. Of these, only a fraction are subject to mandatory testing under the Federal Insecticide, Fungicide, and Rodenticide Act and the Food, Drug, and Cosmetic Act.

The Clean Water Act and the Federal Water Pollution Control Act dealt only with discharges and emissions. Therefore, controls could only be enforced after severe economic consequences had occurred. The Occupational Safety and Health Administration dealt only with worker exposure or consumer hazards, but not with environmental hazards.

Thus, TSCA provides the EPA with authority to require testing of chemical substances, both new and old, entering the environment and to regulate them where necessary.

## **6. Resource Conservation and Recovery Act**

Enacted in 1976, RCRA is a regulatory statute that provides "cradle-to-grave" control of hazardous waste by imposing management requirements on generators and transporters of hazardous wastes and upon owners and operators of treatment, storage and disposal facilities or active facilities only. Thus, the legislation of RCRA addresses the proper management and disposal of hazardous and non-hazardous wastes.

## **7. Hazardous Waste Regulations**

The Department of Transportation regulates all hazardous materials shipped by air, rail, highway and sea going vessels. Specifically, this is a bill designating the international regulations for shipping hazardous materials by using packaging specifications for each type of material transported.

Hazardous substances or wastes become regulated materials when they are determined to pose a substantial or potential threat to human health because of its quantity, concentration, physical, chemical, or infectious characteristics. Generally, a hazardous waste or substance falls in this category if it is ignitable, corrosive, reactive, or toxic.

Hazardous materials include; explosives, fertilizers, gasoline, solvents, corrosives, poisons, gases, oxidizing materials, radioactive substances and agents capable of causing disease. Any hazardous material that no longer can be used as a product must be designated as a hazardous waste under DOT regulations.

Hazardous waste liquids and hazardous solid mixes fall under Department of Transportation regulations for waste mixes, each subject to individual specifications for hazardous substances or wastes.

The Hazardous and Solid Waste Act of 1984 was an amendment to RCRA defining, among other things, solid waste and hazardous waste, thereby creating the need for specific regulations for municipal, industrial, commercial, mining, and agricultural activities exempting certain domestic and naturally occurring wastes from the list.

#### **8. Underground Storage Regulations**

Described under RCRA, this law gives the EPA the authority to develop a comprehensive regulatory program for underground storage (UST) systems. Specifically, the provisions to Subtitle I of RCRA say that "system owners must notify their state agencies of UST systems and any intent to install a new underground tank". This gives the EPA authorization for cleaning up petroleum releases from UST systems or have the owners required to do the same. Additional provisions to this section outline laws for all owners and operators of UST systems to adhere to. This insures the management of clean ground water and prevention of future cleanup costs

#### **9. Comprehensive Environmental Response Compensation and Ability Act**

Enacted in 1980 for a five year program, the "Superfund Law" gave EPA the power of liability response for cleanup of releases or threat of releases into the environment of a hazardous substance or pollutant or contaminant.

The basic purpose of the law is to provide funding and provide enforcement for cleaning up the thousands of hazardous waste sites created in the United States and for responding to hazardous waste spills. Also, CERCLA tackles problems of hazardous waste at inactive or abandoned sites by implementing actions that provide long term solutions for site remediations incurring huge project costs and immediate containment or contaminant removal plans for sites such as underground storage tank spills.

By 1976, the enactment of SARA followed CERCLA and saw increased funding for creating new programs and new standards encompassing risk evaluations and site cleanups. SARA was followed in turn by SARA III or the Community Right-to-Know law. This law saw the need for public awareness programs stemming from the infamous Bophal gas leak in India. By authority of SARA III, communities across the nation were armed with emergency plans aimed at minimizing the threat of hazardous chemicals or substances manufactured and stored locally.

## V. Conclusion

The purpose of a corporate self-governing policy is to investigate potential environmental hazards while managing operating costs by implementing environmental health and occupational safety programs due to liability claims associated with past hazardous waste disposal practices.

Environmental Service Department has energy, drive and expertise at all levels. The corporation is environmentally conscious and supportive of health and safety policies.

The future goals of the company are to become proactive in the environmental/health and safety programs reflecting EPA and OSHA standards. Long-term planning commitments envision a synergized workforce among divisions while satisfying customer demands and maintaining compliance goals.

**COUNCIL OF ENERGY RESOURCE TRIBES**

**NATIONAL RENEWABLE ENERGY LABORATORIES**

**1993 SUMMER INTERNSHIP PROGRAM**

**NICKY MICHAEL, INTERN**

- **PERSONAL STATEMENT**
- **RESUME**
- **REPORT**

## Nicky Kay Michael

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My name is Nicky Michael, and I belong to the Delaware Tribe of Indians. This internship has been with the Council of Energy Resource Tribes and host-company National Renewable Energy Laboratory. The project was to identify the cultural, social, and economic barriers to solar and wind energy sites on Indian Nations' Tribal lands.

To give you an idea of how I came to this program, let me briefly explain some of my background, and some significant factors that led me here. I grew up in Commerce City, CO and I am currently attending Stanford University. Through the Indian community at Stanford, I found a support network. Even though many of the Indian students came from varying degrees of tribal background, and distinct cultures, I found that others in the community had similar problems and issues to deal with. I particularly experienced how an inadequate high school education affects a young person going to Stanford, and found that many of those in the Indian community also had to struggle with this. The Indian community enabled me an outlet for some of the frustrations at seeing things in a different manner than what was fed to me through the American media, and many of my classes. The most valuable thing that I learned from Stanford and the Indian community is to be proud and strong in my own identity as a woman of mixed Delaware Indian and European American heritage. Moreover, I grew stronger in my beliefs from the Stanford experience, and I learned that I could choose how to develop and influence those beliefs. This is why I have chosen to get my B.A. degree in American Studies with a Focus on Race and Ethnicity. I think that in order for me to be strong in those beliefs in American Indian people, I should know the history, policies, and social practices that have brought us here today. In the future, I am also interested in furthering my education in Environmental or Geological Sciences. I recently "walked through" my graduation ceremonies, and I have two quarters to go before I finish my degree.

The CERT internship has given me another place to experience the American Indian community. It has provided an opportunity for me to examine where my place is in Indian America, as well as a means for me to put my education and interests into action.

Currently, Americans are being directed towards the use of Renewable Energy Technologies and the National Renewable Energy Laboratory (NREL) would prefer for America to have complete reliance on Renewable energies to supply our energy needs. However, aside from Renewable Energy Technologies, Tribes reside on much of America's mineral, oil, and gas reserves. This means that Indian people are implementing, or will implement, projects to develop these resources to aid in their efforts for self-sustenance. The question then becomes more directed at how Renewable Energy Technologies fit into the schemes, and what energy supplies should

the Tribes develop, in addition to what the limitations are. Some of my research, and the trip to Washington D.C. and the Energy Forum, has lead me to conclude that Indian people can look at both options, using the mineral, oil, and gas reserves for more of the short-term development projects and development of Renewables for more long-term development projects. This is where my project comes in and has given me some understanding of the complexity between the Federal Government, the Tribes, and energy development. Specifically, the areas that were examined and contacted were the Chemehuevi Reservation which has a prime resource area for solar energy, the Blackfeet Reservation has prime wind energy resources, and although I concentrated on the wind power, the Cheyenne and Arapaho have both solar and wind resources from their areas. My project has been to identify these Tribal areas and examine possible social and cultural barriers to the development of solar and wind power. In order to do this, I researched Indian World View, some history of energy projects, sovereignty issues, and lastly Renewable Technology Development Project studies in California and in the developing world, so that in implementing Renewable Energy Technologies like solar and wind power, these barriers can be identified and dealt with before implementation begins.

In closing, there are a few people at CERT that I would like to acknowledge. Although everyone working here deserves credit, there have been a few people that have helped me individually. Jay LeBeau has answered many of my questions. Ray Loloff has searched, sometimes for hours, for the feasibility studies, Rhonda Mitchell gave me words of encouragement. Also I want to thank David Lester and Jim Pierce for some general encouragement in addition to the time each of them took to give me feedback for this report. Lastly, Lesley Jackson, Janis Snyder, and from NREL, Bill Traugott and Dan Packy were responsible for the program and getting me here. So, as we say in Lenape, my tribal language, wanishi, meaning "thanks" to each of you.

**Nicky Kay Michael**  
**6281 Carol Way**  
**Commerce City, CO 80022**  
**(303)287-5981**

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**Education: Stanford University**

9/89-present Major: BA American Studies with a Focus on Race and Ethnicity  
Expected Graduation: March 1994

**Technical Experience/Fieldwork:**

Summer  
6/93-8/93 **Council of Energy Resource Tribes/National Renewable Energy Laboratory**  
Internship: Researched potential Solar and Wind Renewable Energy projects on Indian Nations' Tribal Lands. Documented and wrote report from research that focused on cultural, social, and economic considerations to the development of these projects.

Summer  
6/92-9/92 **U.S. Forest Service, Brush Creek District, Saratoga, WY**  
Fisheries Crew Member: (1) Pond Surveys--recorded frog and toad habitats and pond environment; (2) Stream Revetment work along eroded stream banks; (3) Stream Surveys--observed and recorded stream measurements, stream environment, and fish habitat.

Summer  
6/91-8/91 **U.S. Forest Service, Hayden District, Encampment, WY**  
Fisheries Crew Member: Stream Surveys--observed and recorded stream measurements, stream environment, fish habitat.

**Teaching/Facilitation:**

6/93 and  
8/93 **Level I and II Institute of Cultural Affairs Facilitation Training Course**  
Facilitator: Trained in state-of-the-art consensual facilitation methods.

9/89-12/90 **Innovative Academic Courses, Stanford University, CA.**  
Co-Instructor: Researched Native American history, coordinated lesson plans, lectured, assisted students, assigned lessons, and scheduled classes.

2/87-8/89  
and  
6/90-9/90 **Commerce City Recreation Center, Commerce City, CO**  
Lifeguard and Swimming Instructor: Coordinated daily lessons, demonstrated safety and swimming techniques to people of all ages, and oversaw safety of swimmers.

**Administrative/Organization:**

1992-93      **American Indian Science and Engineering Society (AISES)**  
Stanford Chapter Vice-President: Organized workshops, oversaw tutorial programs, planned California AISES Regional Conference, fostered communication between membership, officers, and advisors, and delegated organizational responsibilities.

**Additional Information:**

- Special Interest: environmental sciences and human understanding of the environment.
- Member: Stanford Women's Advisory Board
- Volunteer: Walker Tepee Ring Excavation
- Volunteer: Stanford Environmental Awareness Program
- Volunteer: Battered Women's Shelter
- Participant: 1990 Stanford Summit Leadership Conference
- Recreation: athletics--run, swim, bike, tennis; arts and crafts

**COUNCIL OF ENERGY RESOURCES TRIBES**

**1993 SUMMER INTERNSHIP REPORT**

**NATIONAL RENEWABLE ENERGY LABORATORIES**

**Prepared by**  
**NICKY MICHAEL**  
**Intern**

**August 1993**

**Council of Energy Resource Tribes**  
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Indian people as evidenced by the many computer programs that have improved the learning processes for students of Tribal languages.

By the same token, as Lester suggests, efforts are necessary to incorporate and synthesize native values with European perspectives. Many native individuals act on the basis of a compound viewpoint comprised of two value systems; however, this dynamic appears to be less prevalent in European or non-Indian systems of thought. It cannot be denied that cordial relations between industry and Tribes are crucial to the advancement of cutting edge systems. A willingness to at least appreciate and respect Indian methods, if not adopt them, will contribute to healthier conditions for the negotiation of applied alternative energy technologies. These energy designs which have been successfully executed among Indian Tribes, tend to be ones that were adapted to coexist with the world view of Indian peoples.

How, then, do Indian perspectives relate to the potential of applying Renewable Energy Technologies? This appears to be a question of how well current methods can be assimilated into a view which, by definition, assigns contrary roles to the would-be resource base. Indian peoples must decide how technology can fit into their world view. For its part, industry must consider how to adjust technology to this view in a way that does not insult Indian sensibilities. Industry, in fact, should tailor its methods to the needs of the various Tribes, rather than expect Indians to acquiesce wholly to a technological view. This has not always been possible. In many cases, Indian Tribes have entered into leasing agreements with the hopes of improving economic conditions and bolstering self-reliance, only to suffer the residual effects of environmental degradation, exhausted resources and reduced economic gains.

One example illustrates the potential of technological-cultural modification. The Colorado Hogan Project resulted in a system whereby the traditional hogan used by Navajos for homes or religious purposes was fitted with solar applications. Charles Cambridge, a Navajo archaeologist developed and built the structure with Dennis Holloway. This is a clear demonstration of how efficient solar energy can be implemented while preserving Navajo culture. In other words, they applied technology to the world view into a traditional Navajo home. The application was adapted in a manner that did not degrade this fixture of a distinct Indian civilization.

The Honorable Tom Tso, Chief Justice of the Navajo Nation Judicial Branch expressed the importance of cultivating empathy for the historical, cultural and spiritual values which Indian people cherish:

## **Social and Cultural Barriers to Wind and Solar Development on Tribal Lands**

The topic of this paper will encompass cultural, social, and economic considerations to solar and wind energy sites on American Indian Nations' Tribal Areas. The focus of the paper can (1) provide information about Indian world view; (2) suggest that in order for successful implementation of Renewable Energy Technologies on Tribal lands to occur, Renewable Energy Technologies would need to be applied to Indian world views; (3) provide historical and sovereignty data applied to energy development on Tribal areas related to the potential of Renewable Energy Technologies on Indian Nations lands; (4) examine cultural, social, or economic considerations that have limited the implementation of solar and wind power on the Chemehuevi Reservation, the Cheyenne and Arapaho lands and the Blackfeet Reservation; (5) provide some alternative recommendations that have the potential to alleviate the barriers to entry of Renewable Energy Technologies.

The specific Indian Nations that I examined were (1) the Chemehuevi Tribe of Indians located in California (2) the Cheyenne and Arapaho Tribes in Oklahoma; (3) and the Blackfeet Tribe of Indians located in Montana. In addition, I researched material about the Navajo, California Tribes, and internationally Developing World countries where there are current installations of Renewable Energy Technology systems.

### **The Bigger Picture; Introduction to Indian Energy**

American Indian Nations reside on much of America's mineral, gas, and oil reserves, as well as, prime Renewable Energy locations. Unfortunately, the development of Indian energy resources has been plagued with a history of unclarified and poorly communicated lease agreements between industrial entities and American Indian Tribes. The roles that the Tribe and the industry were expected to fulfill, often led to murky relations overcast with Tribal and governmental regulated procedures. Furthermore, the federal government slacked in its trust obligations with Indian Nations through inconsistent laws and regulations. Little or misguided consideration has been given to the impacts and welfare of the Indian people, their environment and their lands. Internal conflict prevailed in Indian country and they often lacked technical and negotiation experience which tended to hamper their vision.

From these experiences, there became a recognized need for clear American Indian energy policies. These policies are still being clarified, but the federal government has been more attentive to its trust status with Indian people which also became a mechanism to regulate industrial exploitation of Indian resources. Indian people have also become more proficient at

negotiation stratagems. Only recently have industry and Indian people realized that their interests and agendas have similarities. Corporations seem to act more like Tribal organizations by providing social incentives to members. Indian Nations have successfully negotiated and renegotiated partnerships with industry. Since the two spheres have recognized their commonalities, the Tribes and industry ask for policies that consider and balance the Indian needs and resources, industrial and economic development, as well as consideration for potential environmental goals and policies.

Renewable Energies are included in the emerging Indian energy policies as the Environmental Protection Act. But to implement Renewable Energy Technologies, several pre-existing factors need to be considered for the transference of the Renewable Energy Technologies. This paper will examine some of those considerations. It is focussed on world views of Indian people, historical Tribal and industrial relations, and the federal government, sovereignty, and local culture and economy. Deliberation of these areas may provide a path to which mistakes of the past are avoided, and transference of the Renewable Energy Technologies can succeed.

### **Social and Cultural Considerations: World View**

The fundamental basis for understanding differences between Indian and non-Indian attitudes toward the application of alternative energy must start with an examination of world view. The language, values, assumptions, methods of doing things, history of a people, and exposures that individuals have encountered are often significantly different from those of non-Indians. The perceptions in our minds of the input we receive from the world has a direct correlation to the meanings we attach to objects, people, and everyday experiences. Our actions reflect those perceptions.

Many commonalities in the present structure of Indian lives relate to historical developments. Tribal relations with the federal government are based on treaty obligations that Indian ancestors signed. As a result of these agreements, Tribal members are entitled to certain health care and educational amenities that are particularly targeted toward Indian people. They therefore hold distinguished perceptions that are associated to and borne from these significant aspects of life. Of course, these perceptions differ with each individual.

Some theoretical examples may shed light on the contrasting ways in which Indians interpret what non-Indians might feel are ordinary aspects of everyday life. A non-Indian, for example, may view a plant as a resource -- an object of potential manipulation for the betterment of his or her life. The plant might be regarded as having little more to offer than scientific or aesthetic

value. For a woman of the Navajo Nation, the plant may be perceived almost with reverence. If she weaves, the plant can be useful to her dyes. Or, the plant can be used for purification and spiritual acts. The plant may be commonly referred in the Navajo language. These are examples in which the plant may play an inextricable role in the woman's sense of practicality, communication and religion. The plant's importance is interconnected with her very being on a fundamental level that non-Indians typically fail to understand.

Consider a more conventional example of the significance we attach to a personal automobile. A non-Indian living in a city basically views automobiles as implements for transportation to and from work, and, often as indicators of wealth or social position. A suburban dweller enjoys the comforts of air conditioning, power steering and other luxurious amenities. The car brings convenience and gratification of the ego to this person's life. Beyond that, however, it may be given little other thought except for those times when it needs repaired or replaced. Conversely, an Indian farmer may perceive a truck as a mechanical item which is integrally connected to his working life and general existence. He or she may use it to travel, haul, pull, plan or harvest. It is rudimentary to the Indian's livelihood. The truck is one example of an Indian lifestyle characterized by interdependence between objectives and tangible objects.

These differing Indian and non-Indian attitudes toward the viability of objects and applicability of technology in our personal lives can be translated to the larger sphere of alternative energy. While Whites and other non-Indians often view technology as a synonym for progress, native people do not always judge this way. Vine Deloria says:

*"When one is an integral part of the Indian world view, his values are oriented according to the social values inherent in the culture itself. Social relations become not merely patterns of behavior, but customs which dominate behavior so that the culture becomes self-perpetuating." (Deloria, 1969).*

Since these customs generally dominate behavior in Indian's lives, the Indian existence is clarified through patterns of maintained procedures. Non-Indian emphasis on technology as the efficient route to what is perceived as a desired change contradicts the Indian resistance to change as an intrusion on tradition or custom. To native peoples, altering maintained procedure via technology does not equate with progress. It must be noted that each Indian Nations is distinct in its habits and traditions. Still, an interconnectedness with the earth, the environment, and nature remains as a common link. Similar attributes tend to be exhibited in value systems of various Tribes. For instance, the Spring, 1993 Winds of Change, article entitled "Servant

Leadership" identifies some traditional Indian values and non-Indian values. Those associated with Indian lifestyles include:

*"...cooperation, group emphasis, modesty, passivity, patience, generosity/sharing, non-materialistic, work for current need, time always with us, orientation to present, pragmatic, respect for age, harmony with nature, spiritual/mystical, non-verbal, religion as a way of life, indirect criticism, extended family importance." (Coyhis, 1993)*

Non-Indian values are listed in the article as:

*"...competition, individual emphasis, self-attention, active, aggressiveness, saving, materialistic, work for the sake of work, use every minute, orientation to future, theoretical, respect for youth, conquest over nature, skeptical, verbal, relation as a segment of life, direct criticism, nuclear family important." (Coyhis, 1993)*

These attributes are detached from one another. While the Indian view tends to strive for group emphasis and cooperation, the non-Indian view strives for competition and individuality. Herein lies the potential for poor communication and stress in relationships.

David Lester, Council of Energy Resource Tribes Executive Director, articulated some of this point of Indian world view at the 1993 Energy Forum when he described the Indian view as an importance placed to the coming to wisdom through understanding and relating to the whole. There is an awareness of cultural values to make wise decisions. The European view is an importance placed on knowledge through breaking down to data and then to analyze and to synthesize in forming decisions. Economically speaking, the Indian view operates on the assumption of abundance and cooperation and sharing products of that abundance. The European view operates on scarcity and maximizing the gain from private industry. The Indian viewpoint sees life as interdependent. The European view is of the survival of the fittest. He added that Indian people desire technology from the European view but do not want it to replace the Indian ways. He also suggests that the European view can learn from the Indian view in the attainment of wisdom.

The importance of the role of industry can take new meaning if the representatives of different nationalities will take time to explain in detail their viewpoints and positions. With an impartial assessment of objectives, Tribal members may come to view scientific applications as enhancements rather than encumbrances to their lives. Indeed this has already occurred with

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*"The false assumption is that the dominant society operates from the vantage point of intellectual, moral and spiritual superiority. The truth is that the dominant society became dominant through military strength and power...Because we are viewed as having nothing to contribute, a lot of time has been wasted.*

*...Land that may appear to have little value to the non-Indian may be very valuable to the Navajo. It may have a spiritual or historical value that has little to do with the income that it can produce. A dollar figure will have to be assigned to things that have no value in the market.*

*...The difference will be in the traditional relationship between Navajos and nature. We refer to the earth and sky as Mother Earth and Father Sky. These are not catchy titles. They represent our understanding of our place. The earth and the sky are our relatives. Nature communicates with us through the water and the whispering pines. Our traditional prayers for the plants, the animals, the water and the trees. A prayer is like a plant. The stem or the backbone is always beauty. By this beauty, we mean harmony. Beauty brings peace and understanding. It brings youngsters who are mentally and physically healthy and it brings long life. Beauty is people living peacefully with each other and with nature. Just like our natural mother, our Mother Earth provides for us. It is not wrong to accept the things we need from the earth. It is wrong to treat the earth with disrespect. It is wrong if we fail to protect and defend the earth. It would be wrong for us to rob our mother of her valuable jewelry and go away and leave her to take care of herself. It is just as wrong for us to rob the Mother Earth of what is valuable and leave her unprotected and defenseless. If people can understand that the Navajo regard nature and the things in nature as relatives, then it is easy to see that the Navajo regard nature and the things in nature as relatives, then it is easy to see that nature and Navajos depend upon each other. This is basic to understanding any traditional Navajo concept which may be applied to natural resources and the environment.*

*...It is difficult to separate our lives into fragments or parts. Our ceremonies are religious, medical, social and psychological. The seasons tell us how to live and what ceremonies to have. The earth gives us our food, the dyes for our rugs and the necessities for our ceremonies. These maybe seen as every day things. The earth today gives us income from mining, from oil, from forests. The water and the earth give us the ability to produce large amounts of food through Navajo Agricultural Products, Incorporated. The snow and rain and proper runoff from the mountains give us lakes for fishing. These may be seen as commercial things. We cannot separate our needs and our relationships in such a fashion. This is why our laws and decisions must accommodate both of these things. We, the people, are a natural resource. Our culture and our history are natural resources. We are so related to the earth and the sky that we cannot be separated without*

*harm. The protection and defense of both must be provided. The dominant society views things in terms of separateness, compartmentalization. For this reason, the Navajo Nation is best able to make the laws and the decisions as to our own preservation and development. I have spoken today of the Navajos. I believe much of what I have said applies to all Indian Tribes. (Tso, 1988).*

Since only the Navajo know what their views are, then the Navajo foremost know how to determine their preservation. The world views of the Navajo are interdependently linked to nature and they are a spiritually based people. By spiritually, I mean the Navajo relate interdependently with the rest of the life forces, including what some may consider supernatural life forces. This is the reason the Navajo are best able to determine the energy developments for their Tribe. It would be difficult for someone not of the Navajo world view to determine what developments the Navajo Nation should undertake, and if the Navajo does not consider the technology applicable to his or her life, he or she will most likely reject it. The key then, is to make the technology applicable to the Navajo person in compliance to his or her world view.

It should be acknowledged that, to a degree, Indian people have always recognized and exploited the potential of those natural resources which the modern world would like to foist upon them in concentrated, mechanized form. Natives held the sun up as a spiritual symbol while taking advantage of its power long before the word "technology" was coined. Jefferson Begay makes this point in Solar and Alternative Energy for Indian Reservations:

*"Today, there is all this frightening talk about solar technology as a highly sophisticated "new" science as the engineers and the scientific community of the world are researching alternate energy forms to replace the shortage of fossil fuels. Terminology, such as collector plates, horizontal radiation, summer and winter solstice, passive, active, and hybrid latitudinal degrees, ambient temperatures, insolation collector efficiency and many, many others are being spoken and sounding like "fifty dollar" words to the lay American.*

*Imagine what the lay American Indian is thinking as he listens to all this talk by Architects, Engineers, Physicists and other varieties of "solar engineers"--probably the "fifty dollar" fee accumulating as they listen and receive the technical services of this select group of scientists. The scientific community is making a "new" science out of something which has been inherent knowledge and an accepted part of life to the American Indians since the rivers ran free, the grass grew green and the air was clean. The Sun is no stranger to us and practical application, as well as religious significance has always been a part of our dependence on these natural and spiritual elements." (Begay, 1978)*

and

*The American Indian tepee has a beautiful symbolic relationship with the Sun...Most American Indian dwellings also have eastern entrances, but too many to identify here.*

*Here, in New Mexico, solar energy utilization is ancient history. Prehistoric villages, such as Chaco, Bandelier, Gila Cliff Dwelling and Taos are noted as some of the continent's earliest examples of sun-oriented housing. The engineering and scientific consideration built into these earth and rock Pueblos to collect the sun's warmth in winter and shade in our summer is exceptional. The Pueblo Bonito Ruins, America's first "Injuneered" multi-story building, located at Chaco Canyon considers into its orientation full benefits of the summer and winter solstice to achieve this.*

*Passive solar thermal for heating homes has been used since the earliest times; the Anasazi cliff dwellings relied on the sun for much of their heat. Indian homes often face east to welcome the rising sun. Native American architecture also utilizes passive principles, such as sunken or beamed homes, double walls with grass between the walls for insulation, rocks around the central firepit to absorb and re-radiate heat." (Begay, 1978)*

From a conceptual standpoint, historical uses of the sun may, in fact contribute to a more fitting acceptance of modern solar instrumentation by Indian peoples. The harnessing of wind, too, may be an ideal poised for greater acceptance since Indians have always respected their interdependence with natural occurrences. For the Native American way of life is as entrenched as that of any culture, and I stress this as the preeminent barrier to any overly aggressive imposition of modern methods.

Vine Deloria has a statement appropriate to this issue in *Custer Died for Your Sins*:

*"Primitive purity is sometimes attributed to Tribes. Some Tribes keep their rituals and others don't. The best characterization of Tribes is that they stubbornly hold on to what they feel is important to them and discard what they feel is irrelevant to their current needs. Traditions die hard and innovations come hard. Indians have survived for thousands of years in all kinds of conditions. They do not fly from fad to fad seeking novelty. This is what makes them Indian." (Deloria, 1970)*

The merging of alternate energy systems with Indian lives in an inclusive manner is a goal that, like other innovations, may "come hard" in the absence of sensitivity to their needs, desires and beliefs.

In conclusion, technology is mechanical. It has no life. Thus, we who have life, can make something lifeless like technology fit into our world views. There is no one way to do this. Non-Indians have been making technology fit into their world for hundreds of years. Indians have also allowed technology into their world for just as long. The difference is that non-Indians in attempting to control their environment allow technology to dictate their world view, (while Indian people have adapted the technologies to fit within their lives in an integrated form to their world views). Solar and wind Renewable Energy Technologies are among the technologies that may be adapted to fit into Indian lives because the sources, sun and wind, have always been an aspect of their world views.

### **A Brief Historical Account of Industry and Indian Relations in Energy Development**

To understand the cultural and social considerations to the implementation of solar and wind energy on tribal areas, we should understand some of the history of energy development on Indian Nations. One case that could exemplify the issue would be the lease projects with the Peabody Coal Company and the Navajo in 1964, and the Navajo and Hopi Nations in 1966 (Clemmer 1978). This case gained much attention because of the tribal and environmental appeals to the public, as well as the court cases that the Tribes went through in order to regain control of their lands.

The Navajo were under the impression that their Nation would gain much in the way of economic development through the jobs and the generation of tribal income. But the Navajo apparently knew little about the value and the extent of coal deposits on their land, or alternatives to coal development at the time they signed the leases (Robbins 1978). The Secretary of the Interior, with a unique role in approving or disapproving lease agreements for Tribes, impressed that the project was a benefit to the United States. The highest priority of the Tribe was the potential economic development through their coal resources. Therefore, the Navajo leased for the strip mining project and a significant portion of their water resources which was needed for the transportation of the coal. What the Navajo more noticeably received, however, were racist hiring procedures, loss of land use, relocation of their families, and non-safeguarded environmental and water practices which caused pollution and damage to the land (Robbins 1978).

In 1966, the Hopi Tribal Council was apparently under similar understandings with this project. This case is referred to as the Black Mesa project. There were also questions of leadership and authority as to the representation of the Hopi that resulted in some poor communication and resentment within the Tribe. When some of the Elders realized the implication of this project and saw the effects that it had on their land, they sought court action in 1971 (Clemmer 1978). They claimed that the lease was invalid because the Tribal Council had gone against the Hopi Constitution. The Council members had not informed the Hopi people, nor was there a full representation in the Council of all of the mesas. Therefore, the Elders wanted the leases nullified through the court. The case against the energy company came to a close when the Elders were ruled against by the Ninth Circuit of Appeals in 1975. The Hopi Tribal Council had to be a plaintiff or a defendant since they had signed the lease. Thus the Elders were not able to nullify the leases and the strip mining continued (Clemmer 1978).

Although these cases were much more complicated than the above versions, they can exemplify some issues that were common to situations in much of Indian Country at this particular time period. For instance, in order for most leases to go into effect, the approval of the Secretary of the Interior is required. Additionally, the Bureau of Indian Affairs oversaw many of the leases. As government entities, to approve a lease without fully examining the motives, agendas, and the impacts for a project, they can be considered negligent in the role of trust-relations with the American Indian Nations. In the Black Mesa case, the Secretary of the Interior also had to have approved the Hopi Constitution which apparently did not authorize the Tribal Council to lease Hopi lands, and actually authorized the Council to "prohibit the lease of Hopi lands" (Clemmer 1978). Therefore, according to the Elders the Secretary of the Interior should have known that the leasing of the land was prohibited within the Hopi constitution. Also the leases:

*"...practically in all instances up until 1976, were let at fixed prices and were valid as long as the lessee produced. There were no neoscalator clauses for royalty rates to take account of increases in mineral prices. Indians were not allowed to tax corporations that extracted resources from their lands, nor did the BIA encourage them to develop their own energy industries. (Clemmer, 1978).*

It could be determined that much of the federal attention was misguided and there were little to no regulations set forth for the development of the Indian energy resources.

Although the projects may have generated some income to the Navajo's, the Hopi's and other Indian Nations, the income to the Peabody and other energy companies far exceeded the Indian royalty rates. Tribes actually received little benefits from the leases. The companies' priorities

were to obtain a viable bargain resource and little regard was given for the livelihood, water, or the environment of the Indian people. As in the Navajo case, the company preceded into the reservation, removed people from their homes, and polluted the area. The companies often went into the negotiations with their self-interested agendas while they impressed that the projects would be beneficial to the Indian People. They promised jobs and money to the Indian people who were in much need of both. Yet, companies often brought in their outside workers on to the Reservation and discriminated against Indian workers. For example, the Navajo organized themselves into a union to take on the Navajo Generating Station in court with allegations of discrimination. The Navajo were ruled in favor of (Robbins 1978). In the Black Mesa situation, the company was supposed to repair the damage that it had done to the sacred land, and instead, left the pit mine open for erosion.

The States also received more in taxes than the Navajo or Hopi Nations. The coal and gas supplied energy to major cities, that mainly generated to the company's income, and the States taxed the companies. Furthermore, "in subsidizing the U.S. economy through their cheap sales of resources, they themselves are heavily subsidized by the federal and state funds" (Robbins 1978), as well as pay substantial prices for energy fuels. The Indian people have had to rely on the federal and state government to sustain their livelihood through programs to accommodate for the unemployment and underemployment on the reservations. Moreover, because a portion of Indian people live in outlying areas, they ironically pay higher costs for the energy that they lease for external use.

How the Indian peoples faltered can also be considered an important aspect in these leases. Indian people lacked the technical and negotiation experience that they needed to deal with American industry. For those reasons, it seems that they were targeted for manipulation and cheap sources of energy. Therefore, stronger mechanisms of technical, legal, and negotiation stratagems were needed in the Tribal structures. This would allow more self-protected stratagems through discriminate and critical questions of what Tribes might agree to. Inadequate facilitation techniques and mechanisms for determining consensual agreement from Tribal members as to their favor or disfavor of the projects, seemed also to be a weakness. All of which added to the detriment and interior troubles of the Indian Nations.

The Navajo Chairman McDonald encompasses the popular opinion among Tribes that resulted from these deficient energy proceedings. He said:

*"The Navajo would only assess energy plans if the federal government made the commitments of energy development for the Navajo people, in conforming with the Navajo*

*goals, needs and priorities, sufficient water availability, without hurting other uses, such as agriculture, livestock, and other industries, energy development made available for use within the Navajo Reservation by Navajos, opportunities to participate, in and control energy development." (Robbins 1978)*

The stance is for the Indian people to take control of their energy resources and the development of these resources through their status of sovereignty. Consequently, instead of relying on the Bureau of Indian Affairs and the Secretary of the Interior to safeguard any projects, the Tribes desired more self-relying tactics for control, checks, and the implementation of programs to deal with the issues, as well as hired their own lawyers, and offered educational incentives for tribal members. From the government, there transpired regulations requiring Indian preference hiring on or near the reservation, environmental regulations, Historical Preservation regulations, Archaeological regulations, and Environmental regulations to comply with. The Council of Energy Resource Tribes (CERT) was also organized and this entity plays a key role in the schemes of Indian energy development. CERT acts as a go-between for the Tribes, the government and the industry, in addition to providing technical expertise, facilitation, and education.

Perhaps industry should be more attentive to the environmental and cultural impacts of energy development on Tribal lands. There seems to be a need to heed an encompassing approach to implement Renewable Energy Technologies on Tribal lands. Industry should be honest and patient in their dealings with Tribes; honest as to their agendas and patient for Tribal people to educate themselves and determine how beneficial projects are for the Tribe. If there is not a wise approach and careful consideration to all perspectives of Tribal development -- economics, politics, social and cultures -- lives of the Indian people can be negatively altered.

We can learn from this history. We do have the knowledge and understanding to avoid these mistakes that have historically caused tension between the Indian Nations, industry, and the government. A primary concern for Indian Nations is to develop their resources in a way that provides for the Tribal members and balances environmental and cultural concerns. Industry can play a significant role in this development, and ultimately it would benefit the industry as well.

From the people that I have spoken with, the Tribes are more willing to work for the betterment of the Tribe rather than let suspicion and antagonism interfere with new partnerships that they could possibly forge. Yet, in their endeavors, they are looking for partners who consider the Tribal needs a foremost consideration.

## **Indian Sovereignty, Energy, Industry, and Government**

In the American Indian's advancement toward control of their energy resources, many people and organizations have scrupulously questioned Indian Nation sovereignty controls. People also question the role of the federal government on Indian areas. Moreover, the states have also become involved through jurisdictional tax issues and gaming issues, which questions who's land is taxable and by what entity, the Indian Nation or the state? The state involvement has lead many Indian Nations to assert that their trust relationship is with the United States government, not the states. The trust relationship has evolved to the present conditions from federal treaty obligations and court decisions. The point is that states should be a non-issue, as the Indian Nations should deal directly with the federal government. The Indian Nations, as political entities of sovereignty, ought to have control of their areas of economic, judicial, legislative, social, cultural, educational, religion, natural resources, land, and political structures which are subject to the approval or disapproval of the Secretary of the Interior and the Bureau of Indian Affairs. This paper can not possibly cover all or even a portion of the issues of Indian sovereignty. Therefore, I have identified some possible considerations of Indian sovereignty that may be applicable to Renewable Energy Technology Development.

Again, from the American Indian perspective, as a nation within the United States of America, their sovereignty enables them complete control of their lands, minerals, gas reserves, economics, judicial cases, natural resources, land, and social and cultural dynamics. However, this really is not the case in all Indian Nations, and it seems more of a goal that is strived for. Yet, in order for energy control, Indian Nations need or want to the fullest extent to exert their sovereign controls. Today, an Indian Nation sovereignty depends upon many circumstances that include the states and areas that they are located in, how the people have exercised their sovereignty rights previously, past and present court cases, and federal recognition, etc.

However, federal or court cases do not necessarily observe Indian sovereignty in the same way that Indian people do, depending upon the time frame and the issues involved. Indian sovereignty can often be left open for interpretation. For example under the Environmental Protection Act, TITLE XXVI, Indian Energy Resources defines the term "Indian Tribe" as:

*"any Indian Tribe, band, nation, or other organized group or community, including any Alaska Native village or regional or village corporation as defined in or established pursuant to the Alaska Native Claims Settlement Act,..., which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians; and the term "Indian reservation" includes Indian reservations;*

*public domain Indian allotments; former Indian reservations in Oklahoma, land held by incorporated Native groups, regional corporations under the provisions of the Alaska Native Claims Settlement Act,...and dependent Indian communities within the borders of the United States whether within the original or subsequently acquired territory thereof, and whether within or without the limits of a State."*

From this act, it seems that all Native American and Alaskan areas are included in the term "reservation." However, this term has not always been applicable to all of the Indian Nations' areas. Tribal areas in Oklahoma, for instance, were invalidated through the Allotment Act of the Jerome Commission in Oklahoma, and the Dawes Commission in Indian Territory. The act checkerboarded the communally owned Indian reservations through the implementation of one-hundred and sixty acre individual allotments. The Allotment Act also allowed non-Indians to own portions of Indian areas. The individual ownership broke up the communally owned systems. The courts in the Oklahoma Tax Commission v. United States, 1943, ruled that the Tribal areas in Oklahoma do not have the same status as reservations. The Sovereignty Symposium III tells what the Supreme Courts interpretation is:

*"The Supreme Court held the theory that the Indian Tribes are separate political entities with all the rights of independent status is a condition which has not existed for many years in the State of Oklahoma. The underlying principles on which the reservation decisions are based, therefore, do not fit the situation of the Oklahoma Indians. Although, there are remnants of the form of tribal sovereignty, these Indians have no effective tribal autonomy and they are actually citizens of the state with little to distinguish them from all other citizens." (Elkouri 1990)*

Contrasting the two interpretations from the Environmental Protection Act and the Supreme court case may give conflicting view points as to the definition of reservations, and allotments. All in all, the Environmental Act gives a broader, less stringent, more liberal approach than the court cases, enabling Indian Nations to more assertively exercise their sovereignty. What seems to be happening is that Oklahoma Indian Areas and other allotment areas are considered reservations for the benefits and purposes of developing their energy resources. Yet, the allotted lands have emerged in a unique situation for Oklahoma Tribes because the Indian people live on Tribal areas where individuals may have title to the land, rather than community owned reservations. The allotment lands can be a significant consideration when developing energy on these lands because individual lands also should be taken into account.

In order for Indian Nations to exercise their sovereignty and control their energy, Nancy J. Owens suggests that Tribes "must exercise economic as well as legal sovereignty in controlling their energy and events that take place on their reservations" (Owens 1978). She elaborates on different controls that Indian Nations should exercise for their sovereignty.

Through jurisdictional control, the Tribes can regulate the activities of people and businesses on the reservation. This is important when energy companies bring in their own employees onto the reservation. The control would enable Tribes to regulate non-Indian's actions on the reservation. When too many outsiders come onto the reservation, they can become a threat to the culture and social atmosphere of the Tribe because they alter the ways of doing things, often times merely by their presence. Outsiders may also bring in their prejudices or preconceptions about Indian people which can also cause conflict within the reservation. Therefore, this control could essentially regulate outside members from altering the local customs and cultures of the Tribe. The jurisdictional control can also regulate business activities that could be detrimental to the Tribe. With Tribal codes for businesses, the states may be limited in implementing their codes. Notwithstanding, Tribes also need adequate court systems to enforce the codes (Owens 1978).

Through financial control, the Tribes can "have the ability to generate capital for investment and to maximize the rate of return on the sale of tribal resources" (Owens 1978). There is a need for greater awareness of the "export economy" where Tribal resources, along with money, is fed externally off the reservation, rather than internally within the reservation. Indians therefore would not have to rely on leases and external sources, for their development projects. This control becomes important for self-reliance; in the ability to rely on their internal means, the Tribe is not obligated to comply with any agreement, or relations with outsiders.

Through managerial control, Tribes can independently "conduct research, promote and manage business activity and provide training programs so that Tribal members can fill the full range of jobs available on the reservation" (Owens 1978). This is also an important form of self-reliance as the Tribe may not have to rely on outside sources for information that could easily be manipulated. Instead, they could rely on their internal skills and management structures to find the most accurate information. Since past procedures have not required companies to share their information with the Tribes during the leasing negotiations, managerial control can enable Tribes to rely on their own data.

Owens is concerned that advising Tribes to develop managerial controls can be advise to "acculturation." She says this can result into a more hierarchical structure that yields more power

and influence to the formally educated, decreasing the influence of traditional teachings and the elders. Notwithstanding, the adaptations of today can incorporate Tribal views with efficient management structures. Many Tribes have indeed done so with provisions from as the Council of Energy Resource Tribes. They present consensus facilitation options and training for Indian Nations to utilize in compliance with traditional consensus concepts. Therefore, in utilizing today's consolidated methods of facilitation and management, concerns about Indian people's "acculturation" can be minimized.

Another means of control is through the "diversification of the Tribal Economy, and development of Indian resources for Indians rather than exclusively to the off-reservation market Indian Nations could develop their goals of internal circulation of money and resources" (Owens 1978). Furthermore, she says to develop vertical integration of tribal economy though "lumber, food, fuel, retail and service business," allows the individual relation to the Tribe and then as a Tribe they can relate to the whole economy. This development, Owens warns, should be at a scale that Tribes can control because if it is larger than tribal control, outsiders are needed. Little confirms this in his essay, *Energy Boom Town: Views from Within*, when he states, "If growth is too rapid communities are unable to meet the needs of the populace, and general social and political breakdowns occur" (Little 1978). In her last point on the issue of diversification of the Tribal economy, she suggests that the jobs serve the Tribe while being consistent with lifestyles and "kinship obligations" (Owens 1978). A diversified economy can allow more strength and bargaining power as a unit, rather than weak individuals competing. With their own controls such as the author suggests, Tribes may be in a much better position to exert their sovereign status. Thus, intrusions from the government, states, and industry can be minimized. However, this seems like a Tribal utopia, as these controls are more and more making their way into Tribal hands, the federal government and the states still practice certain controls over the Indian Nations.

Furthermore, corporate bodies indirectly have influence on the Tribes through the federal government because "the government is dependent upon the corporations for political and economic power" (Owens 1978). Tribes must also compete with corporations, for political say, as well as economic say in controlling Tribal productions. Thus, the Tribes are asked to compete with a system that has often limited Indian control and exploited their resource. The industry has received the main portion of the money for Tribal energy sources, thus giving industry the power. Meanwhile, the Tribe has often had to compete for political say without the power that the money may have yielded.

Although more recent developments have enabled Indian Nations to gain some of that money and some of that power, by no means are the significant portion of Indian Tribes near the political influence that corporate entities yield. Nonetheless, while singularly Indian Nations can not exert as much power, nor utilize as many resources as corporations, the Council of Energy Resource Tribes seems to have somewhat evened up this political strife for influence, and more, they have provided a bridge to certain Corporations and Tribes that have similar objectives. Thus the Indian Nations have attained a means by which to voice their positions with some authority. David Lester also points out that:

*"as Tribes have extended their sovereignty over industry, industry in turn is acting more and more like a Tribal government--providing more social benefits and seeking redress for grievance directly to Tribal governments. And because industry pays taxes, and employs Tribal members, Tribes are not always hostile to industry's desires (7/8/93)."*

One could say then that as corporations become more like Tribal organizations and Indian Tribes have become more proficient, the tension of the past may be diluted from the common interests of the present that enable Tribes and corporations stronger relations and increased political influence.

For these reasons, and perhaps for other reasons such as the federal governments reduced ability to control Tribes, the federal government seems to have worked in a more favorable fashion towards Indian Nations' land issues, fuller sovereignty, and the development of energy on their lands. To illustrate this impression, there are now regulations on Indian lands to protect the Indian cultures, such as the Protection of Sacred Sites and Cultural Resources, and the Archeological Resources Protection Act.

Likewise the Energy Policy offers loans and grants for the development of Tribal Renewable Projects. Section 2603 of the Environmental Protection Act says that:

*"The Secretary of Energy, in consultation with the Secretary of the Interior, shall establish and implement a demonstration program to assist Indian Tribes in pursuing energy self-sufficiency and to promote the development of a vertically integrated energy industry on Indian reservations, in order to increase development of the substantial energy resources located on such Indian reservations. Such program shall include, but not be limited to the following components: The Secretary shall provide development grants to Indian tribes or to joint ventures which are 51 percent or more controlled by an Indian Tribe and technical capability needed to develop the energy resources on Indian reservations. Such*

*grants shall include provisions for management training for tribal or village members, improving the technical capacity of the Indian Tribe, and the reduction of tribal unemployment. Each grant shall be for a period of 3-years...Such term includes, but is not limited to, projects involving solar and wind energy, oil refineries, the generation and transmission of electricity, hydroelectricity, co-generation, natural gas distribution, and clean, innovative uses of coal."*

and:

*"The Secretary shall establish a program for making low interest loans to Indian Tribes. Such loans shall be used exclusively by Indian Tribes in the promotion of energy resource development and vertical integration on Indian reservations."*

Section 2604 of the Environmental Policy Act also:

*"...authorizes the Secretary of the Interior to make annual grants to Indian Tribes for the purpose of assisting Indian Tribes in the development, administration, implementation, and enforcement of tribal laws and regulations governing the development of energy resources on Indian reservations."*

Section 2606 also authorizes assistance specifically for renewable energies on tribal areas. It states:

*"The Secretary may grant financial assistance to Indian tribal governments, or probate sector persons working in cooperation with Indian tribal governments, to carry out projects to evaluate the feasibility of, development options for, and encourage the adoption of energy efficiency and renewable energy projects on Indian reservations. Such grants may include the costs of technical assistance in resource assessment, feasibility analysis, technology transfer, and the resolution of other technical, financial, or management issues identified by the applicants for such grants."*

This reflects that the federal agencies are directed to aid Indian Nations in the development of their energy and specifically to aid in the development of Renewable Energy Technologies. It also addresses the corporate role in the development, requiring that the Tribes have the major portion of the developmental control.

According to David Lester, Executive Director of the Council of Energy Resource Tribes, the Indian Tribes have the following priorities for the Department of Energy and the Department of the Interior programs under the Energy Policy Act:

*"(1) To help Tribes maintain viable energy mineral extraction programs--natural gas, oil, coal--through grants to develop a resources data base, assess resources, institute Tribal production companies, strengthen Tribal regulatory and environmental compliance capabilities, and market the production; (2) To integrate energy fuels production into the Tribal economies through power generation/co-generation, Tribal electric utilities, Tribal regulation, and Tribal processing/refining. Renewables are of secondary priority because of the importance of energy minerals production for the current Tribal economies--jobs and present Tribal revenue base, royalties, rentals, taxes. It will take years for Renewable Technologies to grow to sufficient volumes to replace coal and natural gas."*

Lester's statement points to the current economic realities of the Tribal energy picture. Still the picture does include Renewable Energy Technologies as he asserts:

*"Indian Tribes are more ready than the U.S. as a whole to move to Renewable Energy Technologies because: (1) They are being exploited as consumers paying the highest prices for electricity and transportation fuels; (2) There is a cultural attraction to Renewable Technologies as respectful to life; (3) There is not a large status quo attachment to conventional energy for the domestic Tribal economy. Therefore Renewable Energy Technologies can be placed within the priorities above through the development of a Renewable Energy Technology data base, assessment of Renewable Energy Technology feasibility, aiding Tribes develop Renewable Technologies with companies, strengthen Tribal regulatory power: capability, aid in development of the external and the internal market for Renewable Energy Production."*

Hence, Renewable Energy Technologies can become a higher prioritized longer-term energy option for Indian Tribes with the appropriate backing of the product, which Lester provides some of these appropriate methods. The backing would come from the financial aid and general support through the Energy Policy Act.

This is a far cry from the time when the government mandated the termination of Tribes, rather than aid in the development of their energy resources. There is now federal government directive control as a repercussion of the 1960's and 1970's corporate dismissals of Tribal powers. Perhaps people have recognized how the development of the Tribes can assist the development

of the United States, not only through dependable Indian energy resources but the creation of Indian jobs. The creation of jobs would help Indian people become self-sufficient, thus taking the burdens of certain programs off the government and aid in United States economy.

Counter to the above impression of a more favorable outlook, based on historical inconsistency, we simply may prevail in a time which it is "popular" to aid in the Indians "plight." I say this because I wonder if the more favorable attitude is from a genuine interest towards Indian self-determination or if it is from a fad created by media influence and pressure. Often more favorable policies have come about only to seemingly to be disregarded and therefore never acted upon. In either case, the Council of Energy Resource Tribe can illustrate what the Indian people now will tolerate:

*"Expectations of the Clinton presidency are high. We expect new sensitivity to our diversity. We expect new understanding of our rights and the importance we place on the exercise of Tribal sovereignty. We expect equity and fairness with respect to our water, energy and other trust resources. We anticipate targeted support for Indian social and economic progress that respects our values and priorities (CERT 1993)."*

They also say that "history has taught us that good intentions are no substitute for sound policy, wisely implemented" (CERT 1993). Consequently, I await to discover just how genuine these policies are. And if they are genuine, the policies just may aid Indian Nations advancement of their goals of control and sovereignty in more expedient manner.

### **Can Renewable Energy Increase Sovereignty for Indian Nations?**

Let us return to the original topic of Renewable Energy Technologies and Tribal lands. If we apply a history of exploitative energy development on Indian lands in today's plight towards the use of Renewables, we ask an important question; can renewable energy use increase Indian sovereignty? Of course this question is a matter of opinion, but there are a portion of people out there that seem to think that Renewable Energies can increase the Indian Nations degree of Sovereignty. For instance, Renewable Energies Native to California says that renewable energy may "increase independence and self-sufficiency, and reduce energy costs" (CEES).

Noel Westerhoff, in the Overview of Solar and Alternative for Indian Reservations, says:

*"If many of the needs for energy were met through solar and alternate sources, diminishing desires would lessen pressures on reservations to quickly sell off fossil fuels"*

*and attached water requirements...Resources and water could be conserved on Indian reservations yielding an increase in value. [There can be] opportunity for making choices with less fear of and anticipation of repercussions. Real choice involves freedom from inner/outer coercion (Westerhoff 1978). "*

Moreover, Richard Wilson points out in Solar and Alternative Energy, "The bureau doesn't hold title to the wind and sun, or we might have some of the same problems in developing alternative energies that we've had in oil, gas, and coal" (Wilson 1978).

All of these statements seem to point out that renewables are viable options that may broaden an Indian Nation's choice as to how and what energy sources could be developed. They also refer to the outside sources--The Bureau of Indian Affairs, the Secretary of the Interior--that have influenced past policies of energy development. The use of renewables may limit these outside sources because they "do not hold title to the wind or sun." Thus Renewable Technologies may warrant the freedom to make "real choices." Additionally, since non-renewable income will not last forever, perhaps Indian Nations should devise renewable options for more long term development.

While it is one thing to postulate about how Renewable Technologies can enable more sovereignty, it is another thing to look at more solid demonstrations. Therefore, I researched how Renewable Energy Technologies were enabling indigenous populations of the Developing Worlds to build more self sufficiency.

Solar Power has influenced the developing regions of the world, and has allowed some of these areas more self-reliance through the market creation and jobs for Solar Power. For instance, Kenya is a country that has been highly dependent upon imported fossil fuels, as they have no resources of their own. Photovoltaic systems have marketed their way into the homes of a great number of villagers. Photovoltaic structures also have allowed them a choice for electricity as well as created jobs. Notably, this all happened within the operation of the rural economy. As an illustration of the market and jobs created by solar energy, some of the local agents originally trained by Solar Shamba, became independent enough to work on their own and began to compete with Solar Shamba (Hankins 1993). Zimbabwe is another country that seems to have experienced self-sufficiency from the market of Photovoltaic system installations. Thus, the integration of the technology to the local world view seems to have allowed a support for the technology to be maintained. Additionally, Bolivia is an example of how solar power options have been integrated into the local traditions and culture. They have a solar power project that operates under a cooperative system rather than the more frequent individual payment bases.

This cooperative has been a means to advocate their traditions of community while integrating the technology to their country.

Applying these examples to Indian Country in the United States, of which many are also considered "developing", may provide us with some insight as to ways that solar and wind energies may be used in our stratagems for development. Moreover, they can provide us with examples of how "Third World" independence and American Indian sovereignty may be explored through means of Renewable Energy Technologies. The primary answer may exist in the procedures and terms of negotiations, and the implementation of the renewable source. For example, if the negotiators ask in the terms for partnership, how does the Tribe benefit? Another question that may be asked is what is offered for Tribal education and training as well as, what is offered for training in the operation and maintenance procedures.

More examples of questions could be: Would the Tribes be in control of the energy, or would the Tribes merely be leasing their land for energy? Who is responsible for repairing the materials? What jobs will be gained, and how is the hiring determined? Thus, what are the major aspects about the project and will its implementation allow an Indian Nation more self-sufficiency, self-reliance, and how will there be economic advancement for the Indian Nation. What methods of payment will be used? etc.

These are only a few considerations that should be given before agreement is made to implement the project. Ultimately, the agreement is up to the Tribe, the partner, and the government, as they are responsible for how the agreement can increase the Indian Nation's sovereignty.

### **Solar Energy and Wind Energy Prospects of Development; Chemehuevi, Cheyenne-Arapaho, and Blackfeet**

In this section I will discuss particular Tribes that have been identified through the Council of Energy Resource Tribes (CERT) feasibility studies as prime technological prospects to implement wind and/or solar power. The location of each Indian Nation, as well as varying political and social considerations were looked at to offer more diversity in the perspectives and approaches to take in the development of Renewable Energy Technologies on their lands. The Chemehuevi are located on a reservation in California, a state that offers and leads in the implementations of Renewable Energy Technologies. Aside from the favorable solar readings, their location within the state may offer a more favorable surrounding for the Chemehuevi if they choose to implement solar power. The Blackfeet are located on a Montana reservation with some areas as individual allotments. Their wind resources are prime. They have had many offers to develop

their wind power, although they have not implemented any projects. The Cheyenne and Arapaho are located on allotted lands in Oklahoma. The Nations have both wind and solar prospects, however I mainly concentrated on their wind. There has been successful implementation of wind power near their Tribal area.

The limited information that I will provide is taken from the CERT feasibility studies and a few conversations with Tribal leaders, and CERT staff. In this paper I can offer the research and opinions that I have been exposed to.

### **Chemehuevi Indian Tribe**

Established in 1907, the Chemehuevi Reservation is located across the Colorado River from Lake Havasu City, Arizona, in San Bernardino County, California. The reservation covers 30,654 acres, with the Colorado River and Lake Havasu forming the north-south boundary on the eastern side of the reservation containing twenty-five miles of shoreline. To the west are the Whipple Mountains, and to the east are the Mohave Mountains. The terrain consists of mesa land, mountains, canyons, deep washes, and low lying desert (CERT 1985).

The Chemehuevi Reservation is situated in the region of the continental United States exhibiting the highest measured values of solar radiation (CERT 1985). The WEST Associates 1976-80 data compilations for seven monitoring stations in California within reasonable proximity of the Chemehuevi Reservation have annual average daily total insolation values ranging from 20.3 to 21.2 MJ/m<sup>2</sup>-day (5.6 to 5.9 Kwh/m<sup>2</sup>-day) and average daily direct insolation values varying from 24-28 MJ/m<sup>2</sup>-day (6.7 to 7.8 Kwh/m<sup>2</sup>-day) (CERT 1985). The Chemehuevi have an additional advantage with respect to the siting of a major energy facility. These faculties include: available land area with minimal relief, proximity of an ample surface water supply, proximity to a major utility electrical grid system, adequate nearby transportation arteries, and an excellent general climate (CERT 1985).

The research team did a site selection process for the best available site location on the reservation. The preferred is located approximately 1.5 miles from the Colorado River water supply and 2.2 miles from the SCE electrical interconnection at Havasu Landing (CERT 1985).

The research states:

*"The economy of the Reservation is not industrially oriented, therefore, the Chemehuevi cannot utilize large quantities of electrical power internally. However, the sale of electric power to a major utility has been federally mandated since 1978 under the Public Utilities Regulatory Policy Act which requires these utilities to buy electricity from small power producers or qualifying facilities as they are termed (CERT 1985)."*

Social, demographic, and economic patterns are as follows: The tribal population on the reservation consists of one-hundred and twenty members. Total Chemehuevi enrollment is five-hundred and forty-six members. The tribal-supported tourist industry is the primary source of income to the permanent residents of the reservation (Chemehuevi Indian Tribe 1993). Matthew Leivas stated that any funds that they get out of the Havasu Landing Resort go back into the resort (7/15/93). This area includes a restaurant, bar, grocery store, marina, campground and an R.V. park (Chemehuevi Indian Tribe 1993). There is also a 5,000 ft. strip airport on the reservation and the Chemehuevi have considered agricultural developments (Matt Leivas 7/14/93). They also have set certain lands aside for wildlife refuge. There are four mobile home parks, mainly utilized by the non-Indians and there are plans to develop and additional mobile home park (Chemehuevi Indian Tribe 1993).

Presently, three people on the Chemehuevi Reservation speak the native language. However, there possibly are more people living across the way on the Colorado Indian Reservation who speak the native language. There are also a percentage of people that speak the Spanish language (Matthew Leivas 7/22/93). Therefore there may be concern for some language translation issues.

Tribal Chairman, Matthew Leivas, talked about the prospects to implement a solar development project. A few years back there were negotiations with certain companies. These were coordinated by the Council of Energy Resource Tribes. This situation did not work out, and the Chemehuevi put the solar project on hold. The problems that they encountered in the agreement negotiations had more to do with economic considerations than technical or cultural barriers (John Hutchins 7/20/93).

The site was predetermined in the feasibility study and the Tribe has designated it as an industrial area. I asked Leivas if the site that was chosen for the project was used for any traditional or religious purposes. He replied that all of the areas have cultural resources, and although there were some artifacts found on the area, through the Tribe's planning processes,

they designated this area for industry. This lessens the concern for developing a project on a location that could be considered sacred to the Chemehuevi.

The Tribe's intent for the project is community and commercial development, and there is no opposition from the Tribe. However there was a completely newly elected Tribal Council. The transition of information was lacking from the previous Tribal Council to the present Tribal Council which posed a problem as the new council was uninformed about the solar project. The Chemehuevi have also formed a Resource Development Committee to address development. In light of these conversations and the CERT material, I was able to determine that from the Chemehuevi position, they seemed to be in favor of going forward with a project if the terms and economics of an agreement met their approval. There was little cultural or social conflict from the Tribe. Perhaps someone from the Tribe could act as a recruiter to persuade and advocate the development of solar power.

The Chemehuevi Tribe of Indians has to externally attain the capital necessary to implement solar power. They require a partnership proposal that matches their economic considerations in a way that advances and is dedicated to the integrity of the Tribe and as David Lester points out, "the Tribe will not accept any liability that extends beyond the project itself. It will not pledge land, nor any other asset except the solar power facility."

### **Cheyenne and Arapaho Tribes**

The Cheyenne and Arapaho Tribes are located in Western Oklahoma. Many areas within the Tribal lands possess fairly energetic winds during several months of the year. Winds resources on Tribal lands are areas designated as Class 3 or Class 4 by the U.S. Department of Energy. Average annual wind power ranges from approximately 200 to 400 watts per square meter (CERT 1990). The proposed site is on trust lands of the Cheyenne and Arapaho Tribes at Concho, Oklahoma (CERT 1990). Wind speeds in the immediate vicinity have been measured fairly continuously for the past three years at two wind turbine sites in El Reno, five to six miles from the chosen site at Concho. The data suggests annual average wind speeds of approximately 13 to 14 miles per hour. Yet, there may be significant variation of readings due to variations in the terrain features. Lowlands and river valleys are probably Class 2. The elevated uplands and exposed hilltops are believed to contain Class 4 and possibly Class 5 wind power. Numerous other sites in the northern and western areas of the greater reservation are believed to contain average annual wind speeds of greater than 13 mph.

A community-oriented wind energy system, consisting of two to six wind turbines at an installed cost of \$184,000 is shown to be technically and economically feasible at an internal rate of return of 12.2% to 20.8%. Cost savings are estimated at approximately \$140,000 over a ten-year period. Annual electric energy production of approximately 392,900 KWH by this system would constitute about sixty to sixty-five percent of the Tribe's present use (CERT 1990).

The Concho area could support a commercial-scale wind power park (or wind farm) comprising of up to thirty or more wind turbines. The project team at CERT postulated a two-step project development scenario "to accommodate wind turbine siting and construction in an orderly manner over a 5-6 year period." Overall payback time for this project scenario is calculated at 6.4 to 8.7 years at electric selling prices of \$0.07 and \$0.09 per KWH, respectively (CERT 1990).

In the Economic Feasibility Assessment-Evaluation Method, the payback (or payout) analysis, discounted cash flow rate of return, and life-cycle cost analysis was highly dependent upon; (1) the extent of wind energy resources at a particular site; (2) ability of wind turbine generator technology to convert available wind resources into adequate quantities of electric, mechanical, and/or heat energy on a cost effective basis; (3) supply, demand, and cost of energy on a local and/or regional level, as provided by alternate energy sources.

*"The economic analysis was done with the assumption of ownership by the Cheyenne and Arapaho Tribes which is a tax-exempt governmental institution. Under Tribal ownership, a wind energy system would not be eligible for state governmental tax credits for wind power which in Oklahoma currently amount to thirty percent of initial capital investment. Nor would the Tribes be able to capture depreciation expense within the annual cash flow (CERT 1990)."*

*"However, in the event of ownership of the wind turbine system by a private corporation (non-governmental), it is possible to take advantage of state tax credits as well as depreciation and possibly other benefits available to private sector owners. Of course, a privately-owned wind power venture would be subject to federal and possibly state income taxes as well as applicable Tribal taxation. Under a leasing agreement or some form of joint venture with a private firm, the Tribes may be able to achieve savings in electric energy expenditures which in some cases could equal or exceed those associated with a Tribally-owned system (CERT 1990)."*

The project team suggested that:

*"The wind park would accommodate the maximum number of wind turbines that could be economically supported in an environmentally acceptable manner. The siting and layout of the wind park project should also consider the possible co-location of solar energy, co-generation, and/or other hybrid energy facilities that could extend the effective use of land, wind, and available sunlight, as well as local natural gas supplies" (CERT 1990)."*

and:

*"While the community-oriented wind energy system would facilitate economic benefits to the Tribes in the form of cost savings, the larger commercial wind power park concept would be directed toward another Tribal goal namely, economic development through the use of Tribal land, labor, and wind resources for generation of substantial quantities of electric power for export to a large regional market. Therefore, the size and timing for development of a commercial wind park would be governed largely by external economic and market forces as well as local environmental and economic constraints such as available land, financing, skilled labor, and project management resources (CERT 1990)."*

The team warned that site selection is a highly important consideration and can greatly affect the economic viability of a wind power system. Wind turbines are "open for public inspection." Therefore wind turbines may affect the aesthetic value of certain land areas. "The visual impact is highly dependent on the type of present land use, the uniqueness of the surrounding landscape, site elevation, and other site-specific factors. The team questioned that:

*"...there could be an affect on tourist and visitor activity: Would a wind system tend to attract or discourage visitors and customers to Tribal enterprises (such as Bingo, smokeshops) and cultural events? (CERT 1990)"*

To remedy possible discouraging effects on tourism, the team believed that potential adverse affects could be largely alleviated through careful wind system site placement and layout. Visual affects may be mitigated by location of the turbines at least 100 yards away from the double row of evergreen trees which parallels the entrance road from U.S. Highway No. 81 to the Tribal complex. Noise produced from six Enertech E44/25 turbines in simultaneous operations is not expected to be disruptive at distances more than 200-300 yards" (CERT 1990).

Yet CERT Executive Director, David Lester theorizes that a wind farm could increase visitors if it contained a "visitors center." The center could educate the public about the Tribe's Wind

Technology and the Tribal planning methods--model consensus, cooperation, etc. A gift shop could complement the center and add jobs. Depending upon how the project is handled, a wind power project may actually enhance to generate tourism to the Tribe, as well as add jobs. As the analysis estimated the Phase II project to employ nine people, a visitor center could add to this number, increasing the total employment that the project could provide. The team asserts that "wind parks can be developed in an attractive and culturally responsive manner" (CERT 1990).

Planning Director, Margaret Antoe, said that the Tribes were not currently implementing a project because they had trouble finding the capital. She said the Tribes are interested in both community and commercial development projects. For instance they are planning a new building for emergency medical service, social services, and law enforcement that could be a "good prospect" for wind power. Antoe did not see any opposition from the Tribe to the project, but there has not been much consideration given to it.

The population of the Concho community is 224 (CERT 1990). The total population of American Indian and Eskimo or Aleut is 8,679 for the eighteen counties in the Service Area of the Cheyenne and Arapaho Tribes (taken from the 1990 Census of Population and Housing) Antoe said that eighty-seven percent of the Indian population sixty-five and older speak and understand their native language to some extent, and twenty-seven percent of the Indian population speak and understand their native language to some extent. There should be some consideration to bilingual or tri-lingual transference, as a significant portion of the people can speak or understand the native languages.

The Cheyenne and Arapaho Tribes of Oklahoma do not seem to have given much serious consideration to a wind power project. Moreover, there does not seem to be a person in the Tribe to recruit its development. Since there has not been much consideration, it is difficult to determine the opposition to wind-power development. Initially, a smaller community development project would take precedents over a larger commercial development project. After gaining some experience with the systems, then the larger commercial project may be approachable to the Tribes.

### **Blackfeet**

The Fort Laramie Treaty of 1851 set aside lands for the Blackfeet Tribes. Additional treaties and settlers infringed upon the territory and in 1888 separate boundaries were established for the Fort Belknap and Fort Peck Reservations. The Blackfeet Indian Reservation extends eastward from Glacier National Park, south of the Canadian boundary line, through the foothills of the

Rocky Mountains toward the Great Plains. Browning, the gateway to Glacier National Park, is an incorporated town within the reservation. It has been the headquarters of the Blackfeet Indian Agency since 1894 and is the principal shopping center on the reservation (CERT Blackfeet Reservation).

The total acreage of the Blackfeet Indian Reservation is 1,600,000. Their current membership is 14,000 total with 7,000 members living on the reservation and less than 1,000 non-Indians (Curly Bear, CERT Indian Reservation Datafile, Appendix F). The area near Browning contains about forty-five percent of the reservation's population (CERT 1986).

A large portion of the annual Tribal income is derived from minerals and the rest from miscellaneous sources. There is a Tribally owned writing instrument manufacturer and a lumber cut-stock plant that provide employment for members (CERT Blackfeet Reservation). There are about seventy retail businesses near Browning (CERT 1986) and the one Tribally owned bank in the United States, called Blackfeet National Bank (David Lester 7/6/93). Community facilities consist of a community building at Browning, a library, and the water is municipally owned. The electricity is furnished by Glacier Cooperative and natural gas by Montana Power Company. The U.S. Public Health Services hospital is at Browning. The recreation facilities include a shopping mall at Browning and a Museum of the Plains Indians at Browning. The Blackfeet hold North American Indian Days, annual dances, ceremonies, and a rodeo. In addition to Glacier National Park, there is the Lower St. Mary's Lake, Duck Lake, and other such areas.

Three types of wind energy systems were analyzed for their potential economic benefits to the Tribe: (1) A Stand-Alone Wind System of a single unit wind systems rated below 10 kW, commonly used with batteries. However they tend to be expensive. Their "ultimate effect on the Tribe's economic goals probably would be insignificant." (2) A Community Wind Project consisting of one to ten wind turbines, 25 to 75 kW range, representing 25 to 750 kW of total capacity. Turbines are usually located near a large energy user, and interconnected to the electric utility or building. Since projects of this type can only be practical when the cost of the facility's electricity from the electric utility is higher than the cost of electricity from the wind project, the project was found not to be viable, unless there are economic changes. (3) A Commercial Wind Farm Project that consist of between ten and one-hundred wind turbines, each unit at 75 to 300 kW range representing between .75 and 30 MW capacity, and are connected to the electric utility system (CERT 1986). The team concluded that commercial wind farms are the only type of wind energy project with the potential to provide long-term economic growth for the Tribe; because unlike the other types of projects discussed, wind farm projects have the potential of providing

a saleable product in the form of electrical energy and do not depend on matching relatively small local electrical needs on the reservation (CERT 1986).

The research team interprets the wind resource potential as:

*"...a very good wind resource which has been adequately documented and identified by the Bonneville Power Administration as the single largest area of good wind land in the northwestern United States (CERT 1986)."*

and:

*"From an energy potential perspective, the reservation area contained 78% of the potential wind energy in the region of the northwestern U.S. considered in the WIND REAP study (Oregon State Department of Energy 1985), and the reports have been widely published (CERT 1986)."*

The team also estimated seven-hundred and fifty square miles of the reservation to have annual average wind speeds of fourteen to sixteen miles per hour, and estimated one-thousand square miles have annual average wind speeds of sixteen to eighteen miles per hour.

Glacier Electric Cooperative can and will purchase electricity from a qualifying independent electric power producer, in accordance with the Public Utilities Regulatory Policies Act legislation of 1978. This federal law requires public-owned utilities to purchase electricity from qualifying facilities, such as a reservation wind farm, at the full avoided cost (CERT 1986). The major load center nearest to the Blackfeet Reservation is about one-hundred and thirty miles away in Great Falls, Montana. Because the existing Browning to Babb 34.5 kV line from the Blackfeet substation is near its maximum capacity, the GLEC is considering a moratorium on a new electrical connections in the northwest portion of the reservation. This line is also reported to be structurally unreliable, because high winds routinely knock down poles and thus cause power outages (CERT 1986).

As to climate and environmental factors the team warned that it would be technically impractical and considerably more expensive to locate wind farms in remote and inaccessible areas of the reservation as there are adverse winter weather conditions (CERT 1986). Any noise problems can be minimized by not locating wind farms within a half mile of homes. Many aesthetic problems can be addressed early if residents are aware of the project early in the development

(13). And, raptors flying into the blades can be minimized by restricted siting along major migratory routes (CERT 1986).

Most of the reservation's wind land is currently used for grazing or agriculture, land use compatible with wind farms. Curly Bear stated a concern for the potential aesthetic problems that a project might cause because of the tourism in the areas. The research team did a site selection process. In this scenario, a 20 MW wind farm would be located within one mile west of the Blackfeet substation. This site is selected because it is very close to existing 115 kV electric utility line with available capacity, it has good wind resources, it is reasonably accessible year round, it is an area of flat terrain where winds will have low turbulence, and no environmental problems are expected (CERT 1986).

This study reveals the payback time as too great and the selling price too low for a favorable feasibility recommendation. There were uncertainty factors; the area's electrical distribution center, the limited ability to sell the power to distant load centers, and the restrictive local land-use policies, were all expected to reduce the limits of practical and economical development of the wind resources to some extent (CERT 1986). However, this study also shows that a "reasonable simple payback time from 6 to 7 years will require a selling price of approximately 7 cents/kWh" (CERT 1986). This analysis finds that twenty years would be required before the project would produce enough revenue to pay for itself. "Since this is about five years longer than the expected lifetime of the project, the wind farm is not cost effective at these expected conditions" (CERT 1986). Based on this estimate, "it is not expected that conventionally financed wind farms on the reservation to be cost effective until the electricity selling price reaches at least 7 cents/kWh (CERT 1986).

The economic conclusion of the Council of Energy Resource Tribes research team was that:

*"...although the reservation's wind resources are excellent, commercial development of them is not a viable means of achieving the Tribe's economic goals in the foreseeable future because of the low electrical energy costs of the local utility, Glacier Electrical Cooperative (CERT 1986)."*

However, the Blackfeet motivations for a project are noted as:

*"The Blackfeet Indian Reservations present economic systems are limited to provide the majority of its residents with a quality standard of living. The population of the reservation is increasing, the birth rate is increasing, the out-migration is decreasing, yet*

*the services necessary to meet the growing needs of the population are decreasing. Unemployment can be high, which has lead to "socio-economic concerns" (CERT 1986)."*

and:

*"In response to our question of what development they would like to see, Diana Burd expressed hopes of eventually seeing the Tribe becoming an independent power producer or private utility selling wind generated electricity. Ed Aupert was less specific, desiring to see appropriate renewable energy development for the Tribe" (CERT Meeting with Blackfeet Tribal Planning Department)."*

Another consideration that David Lester spoke of is the hydro power energy decrease. He states:

*"Given that in order to protect salmon species, hydro power generation will have to decline in the northwest region, Blackfeet wind power may be an acceptable replacement for the lost power--large intensive use of the wind resource, 10-15,000 megawatts, since coal is not a favorable replacement fuel (7/5/93)."*

According to the Planning Department (7/15/93), there presently is not a wind power project in the implementation phase and there are companies interested but they must wait. The Tribal Council is new, and they fear making the wrong decision. Curly Bear, (7/23/93) who deals with cultural resources, said that the wind power would be for commercialization, but potential aesthetic values were a concern because of the tourist industry in the area. However, proper siting can reduce this adverse effect and a "visitor center" may provide the means to enhance the project by generating tourism. In addressing the issue of sacred lands, Curly Bear said that the companies would work with an archeologist (himself), and that they would have to have "good clearance" before any project would be approved. The siting of a project would go through Tribal codes and requirements to alleviate potential controversies with sacred sites.

I conclude that the Blackfeet Nation favor a wind energy project if a proposal could meet their economic and political goals. The Tribe wants an income generating project that creates jobs. Yet CERT Chief Administrative Officer, Jim Pierce, said that many of the proposals he knew about were not in compliance with Tribal goals. He contended that the proposals favored the economics of the company rather than the economics of the Tribe. Therefore, the Tribe has refused many proposals for wind power project.

#### **Case Studies Renewable Energy Use in the Developing World and on California Tribal Areas**

In this section, I extracted case studies of Renewable Energy applied to California Indian Nations, and case studies of Renewable Energy applied to areas of the Developing World. This should first provide us with a sense of how certain Indian Tribes have received a renewable and then the information should give us a sense of how the industry has learned to approach the development. Lastly, I shall provide my interpretation of the information and relate certain aspects to the world view of Indian people.

The California Energy Extension Service (CEES) surveyed Tribes in California in their projects of Renewable Energies. They recommend that Tribes utilize certain stratagems when considering the use of Renewables.

They postulate that California Indians are more sensitive to methods that the state uses to produce energy, improve the environment and ensure a solid future for coming generations. Some villages have been in continuous habitation for nearly 7,000 years. This section discusses what they may perceive as their responsibility to provide for their children and grand-children. These considerations relate to the basic Indian world view. Renewable Energy Technologies exist as viable options for production of environmentally clean sources of power. What follows is a clear look at their feasibility and benefits.

CEES writes of economic advantages to the use of renewables given the remote location of most reservations and rancherias. Natural gas, propane, and electricity, which most commonly meet people's energy needs, are often not available or are too expensive to use. Appropriately applied alternative energy sources often meet the tribal energy needs better than conventional sources. The Renewable Energy Technologies increase independence, allow self-sufficiency, reduce energy costs, reduce pollution and greenhouse gasses, create local jobs and job training opportunities, and generate income.

Of note is the advantage to solar and wind energy, that each has free sources of power and the costs of installation and maintenance has declined in the past twenty years. As to the disadvantages, CEES found systems were occasionally subject to vandalism. Wind systems are not as predictable as other Renewables and have the potential for rotors to collide with the turbines. Tribes typically use wind power to pump drinking water and to irrigate crops, as well as to generate electricity for appliances. In alliance with private developers and with careful evaluation, wind systems may foster economic development.

To assess solar and wind energy options, CEES recommends that a Tribe identify its goals as to community or economic development, identify its technological and human resource options,

and contact those who can assist and explore their ideas. From external sources, Tribes should gather information and talk to people involved with current projects, obtain copies or schematics for similar projects, find out what others would have done differently and whether they would do it again using the same consultants. Internally, Tribes should test the acceptability of a project. They caution that some members feel that the potential economic impact, no matter how great, is negated by loss of ancestral lands, threats to sacred animals, medicinal plants, etc. CEES suggests that a survey of key Tribal members could determine the support. Tribal members should understand what the system can and cannot do (its benefits and limitations). A model should "simplify the development process for tribal planners so that the benefits of the technologies can become a reality for Tribes" (CEES).

CEES lists the following considerations to determine how successful a project may be:

(1) The degree to which projects meet Tribal energy needs, resolves problems, and aligns with their long-term goals and objectives. Some developers perceive Tribal lands to exhibit relaxed land use policies. Yet Tribes, like other organizations, have to comply with county, state, and federal regulations. As to the Indian position, Tribes are often receptive to promises of economic development. This may cause the Tribe to downplay environmental and aesthetic impacts of projects. CEES advise that Indian Nations should check their energy use before any implementation begins. They should examine their energy efficiency and what their specific needs are -- lighting, dark spaces, preserving food, heating the home, running the stereo. CEES concludes that Tribes were more likely to be successful with community development projects which the basic motivation was to solve community needs. In essence, the local Indian people should know what requirements they would like the renewable program to meet and what would be components of an ideal technology transfer.

The terms of an agreement need careful analysis by the Tribe's legal department to discern the motivations between Tribe and developer. This can alleviate potential strains on relationships. Agreements should also assess the long-term environmental problems created by development on tribal lands, which are of concern to the Tribe long after the business is finished and the developers have gone away.

(2) Another recommendation is for a commitment from tribal member/staff to follow a project from the beginning to the end. Aside from this advocate or "champion" for the project there should be a pre-assessment to determine if there is a resource, then progression assessment (feasibility study or design development).

(3) There should be available and adequate funding, which includes funds for ongoing maintenance. External sources of financing can be used separately or together with Tribal funds to supplement grants or private ventures. They provide a concern that "if funds for operating and maintenance are borrowed from the original funds, it can have a severe impact on the effectiveness of the project." Along with this, there is a need for proper installation and quality control to assure that state-of-the-art equipment is saving energy, as CEES warns a well designed project could turn into a financial drain on the Tribe. Tribes should budget regular inspections during the construction process to verify that all specifications are met.

(4) They also recommend an effective transfer program of the technology to the Tribe and members (owner/operator training). A project meets peoples' expectations more when there is proper orientation and maintenance training, as well as increases the potential overall success of the project. Therefore plans should define the operation and maintenance requirements -- who performs the maintenance, training plans for tribal members, nearby and secondary sources of parts and material need to be identified. There should be a budget for operation and maintenance, it accounts for nearly twenty-five percent of total quality points (CEES).

The plan should be implemented with training, and available operation manuals (CEES). For operation and maintenance of a wind power project, there should be procedures to orient, train, and educate the system users, as well as procedures to operate, maintain, evaluate, refine, and fine-tune the system. There need to be regular tuneup schedules which can be as routine as greasing the bearings, checking the brake mechanism, inspecting all systems at least twice a year, and replacing certain items at specific times (CEES).

Solar and Electrification in the Developing World, may provide recommendations from the industry position. Previous to the solar technology, many of the villagers paid for kerosene for their lanterns. Many village homes burned down from overturned lanterns, and their children's breathing suffered from the inhalation of the fumes. In their want of an alternatives to the lanterns, villagers often promoted the solar power as Hankins says:

*"The market was led to a great degree, by rural people who have adapted the technology to their own needs, and who use mechanisms already in place within the community to pay for, maintain and incorporate the technology into their daily lives (Hankins 1993)."*

Of course, this was not always the approach and from the late 1970's to the mid 1980's, many projects "engineered" to perform maintenance-free failed because of lack of local involvement. The author states:

*"When fuses blew or when rodents chewed through the wires local farmers hundreds of miles from the nearest town wondered where in the world they could find someone who knew enough about this miraculous technology to fix it. And they went back to older technologies that they could maintain (Hankins 1993)."*

Basically, the local people integrated the technology to their world view perpetuating more success than the previous attempts. The previous approaches were often mistaken in their approach by attempts to make the local people adapt to their technology. Richard Hansen's produced a sustainable approach to the development of the solar energy. He states:

*"By introducing technology in a simple form for applications that are economically viable, the technology is brought out of the domain of engineers and into the domain of rural people. By encouraging a variety small economically attractive applications for home, business, and community use, enough activity is created for local technicians to become skilled and employed so that a sustainable electrification process is established... And although placing 100PV powered heal the centers in rural Dominican Republic would be an important health advancement, it is doubtful that a sustainable photovoltaic support system would result (Hankins 1993)."*

For a rural photovoltaic network to develop, local agents must not only recognize the viability of solar electricity; they must also recognize its potential for income generation and know how to market, install and service systems. They must also be able to make sure that users do not misuse systems. For instance, in November 1985, Hansen worked with a local entrepreneur to establish Ferreteria Bella Vista, a small hardware/electrical supply store. This became the solar service center for the region, a place where photovoltaic customers could order new systems, buy spare parts, request servicing or arrange short term financing packages (Hankins 1993).

The sustainable approach has grown more defined. Enersol and the University of Lowell modeled an approach to the development of Solar. This is called the SO-BASEC approach and it draws upon existing technical, human, financial and institutional resources. The approach credits the local people to understand the nature of the electrification problem and requires their commitment in the search for solutions. In Puerta Plata, for instance, the process demanded close collaboration of customers, trained technicians, rural credit associations, and local solar service enterprises (Hankins 1993). Once the SO-BASEC model is in place in a given community:

*"...local confidence in technology is established rapidly and in their eagerness to acquire lighting systems nine customers will pay cash for each of those who access credit schemes (Hankins 1993)."*

A catalyst group is an important aspect of a sustainable approach. They can exemplify to the local people how a photovoltaic system can work in their environment. Hankins emphasizes that in all of the countries the catalyst entered the rural market, worked closely with and were able to establish trust with the rural community groups. By inoculating the technology and training local individuals, a demand for home lighting systems developed, and sales of solar cell modules grew colossally (Hankins 1993). For instance, during the catalyst stage in the Dominican Republic, seed grants from USAID facilitated initial demonstration systems, credit group establishment, assistance for training, and private entrepreneur guidance. In Kenya, a USAID small project grant assisted an initial training and demonstration effort, which established opportunities for independent private entrepreneurs. In Zimbabwe, the government played a vital role by seeding photovoltaic country-wide in health centers and agricultural office demonstration systems. In Sri Lanka, Suntec subsidized its own demonstrations and technical training, while working closely with private entrepreneurs in village markets (USAID financed a market study that facilitated their finance package) (Hankins 1993). Thus government has a role in certain respects. They can offer aid for initial investments and training through the catalyst groups, but the project is successful only when the local people take control of the market.

The systems were mainly propagated among village innovators to spread the word about the successful performance. The rural market must be identified, suppliers and technicians need to be mobilized, and credit must be made available as necessary and a supply chain for photovoltaic equipment must be put in place. The author states that "Rural people are rightly suspicious of unfamiliar technologies, and are slow to invest in any technology without positive proof of its viability" (Hankins 1993). Moreover, Community leaders and innovators, can discover new technologies among themselves; if an appropriate technology works word spreads (Hankins 1993). Solar electricity is seen as a more accessible and trustworthy technology after groups form. One such group is ADESOL (La Asociacion para el Desarrollo de Energia Solar), a local group dedicated to solar rural electrification may form. This particular group was formed to offer photovoltaic system financing for members by managing a revolving credit fund. It was formed:

*"...by people interested in using PV as a community-improving tool and as an employment generator, its members share their knowledge with others in the DR by*

*hosting workshops, and by inviting entrepreneurs to participate in the organization (Hankins 1993)."*

The group is now an incorporated Dominican nonprofit organization that offers four complementary programs: education, support group, financing program, community systems program. They make modules widely available and use as much local material as possible. They also train through the Development Professional Workshop (Hankins 1993).

The author provides other enforcement of the importance of local involvement through marketing and promoting the technology. He states:

*"The PV initiatives in DR, Kenya and Sri Lanka have benefitted from active involvement of grassroots operators who market, install, service, and often arrange informal credit from bases in rural areas. Unlike international sales agents, indigenous solar technicians (trained by PV catalysts such as Enersol and SELF) are successful promoters of technology because they are highly motivated, skilled in ways of local enterprise, and trusted by the community (Hankins 1993)."*

Drawing from the statement, one can see that the local people have successfully created their community solar power programs because they are versed in the ways of the local world view. Whereas an external company person promoting the sales would not know the norms and values of the community world and therefore would not access the trust needed to successfully market the photovoltaic systems.

He also recommends that a strong network of technicians is important to service the photovoltaic systems. Hankins assures that there are a number of effective photovoltaic service delivery mechanisms, but that the "supply of quality PV modules, BOS equipment and spare parts" needs to be secured from the "beginning to the end of the dissemination chain" (Hankins 1993). This can indicate how a clearly defined agreement can alleviate potential mistrust from unclear guidelines for their systems. If the trust of the local people is lost because they cannot access the means to fix their system, than they will not trust in the project and the project can fail.

Financing has been a "limiting factor" in the dispersement of the photovoltaic systems. Yet Enersol's priority was to create mechanisms to enable low income people to buy systems. Five to ten percent of the systems installed through Enersol programs are paid for. In the sphere of

user management, he asserts that "the responsibility of training the user should rest with the company selling the system, and most do train users adequately" (Hankins 1993).

Locally designed and assembled systems are less expensive than imported units. In the dissemination of the photovoltaic systems the author offers some other suggestions. "Giveaway programs" do not work; end-users who do not pay for their systems are "less motivated to maintain them, and are less aware of their value." He warns that if systems are to be subsidized, the subsidy should be provided in a way that does not interfere with the private sector. The reasoning for this is that gifts are not sustainable, and it seems more appropriate to ask for a finance system from the people, as in credit mechanism (Hankins 1993).

The author provides case studies depicting how solar power has enabled self-sufficiency. For instance, Kenya is a place highly dependent upon outside countries as it has no oil reserves of its own. They therefore import all of their crude petroleum products. Through a series of demonstrations and placing photovoltaic system in a school, the interest spread to local use. Subsequently several of the local agents originally trained by Solar Shamba became independent enough to work on their own and began to compete against Solar Shamba (Hankins 1993). Self-sufficiency was reared through the local economic amplification of the photovoltaic market. The villagers pay the full cost of their solar home systems which Hankins suggests will demonstrate that continued outside dependence is unnecessary (Hankins 1993).

For the photovoltaic systems in Zimbabwe to meet the expanding demand, and to move toward photovoltaic self-sufficiency, Solarcom invested in solar cell module manufacturing equipment. In 1988, they installed a Canadian-made TPK laminator in their Harare factory. Starting production in July, 1988, Solarcom became one of the first module manufacturers in the continent (Hankins 1993). The factory manufacturing of parts indicates that substantial integration of the photovoltaic systems has occurred in Zimbabwe. Moreover, as mentioned before, Bolivia projects are being run as a "cooperative rather than private ownership, taking advantage of their strong communal traditions" (Hankins 1993). Thus the photovoltaic systems are integrated into their native world view of community ownership.

In conclusion, Hankins asserts that photovoltaic systems are "The Way Forward," evidenced by the, "scores of thousands of installed lighting systems that make the case that solar electrification is a genuine alternative-not just a fantasy of utopians" (Hankins 1993).

## Recommendations

In returning to American Indian Nations then, these examples of the Developing World may provide some data as to what roles the industry and the local people play in the development of Renewable Energy Technologies on Indian Nation lands. From the examples of the Developing World, and Renewables Native to California, we can learn from some of the approaches that have been set forth. Indians and industry may utilize a catalyst group to promote the systems. They can also place the systems in visible locations such as schools and community centers. If progress is made according to the Developing countries, then the trust will develop and local use of the Renewable Energy Technology can spread. There is also the option for American Indian people to utilize cooperatives, such as Bolivia, to integrate the systems to their native values. As set forth, the local people would control the development of the Renewable Energy Technology, as long as the company's primary priorities are for the community goals. The companies should also provide adequate operation and maintenance programs, as well as comply with the Tribe as to system repairs accommodations. Moreover, the government's role seems to be minimal as it provides money for the community training efforts and investment options. These examples have shown that the development of Renewable Energy Technologies is a means for creating self-sufficiency, which to Indian people can mean more assertive sovereignty. The examples also show that industry and native peoples can work together towards the goals of the native people. Therefore, we can see that when the industries' priorities are for the goals of American Indian Nations, the development of the Renewable Energy Technologies on Tribal lands can take place.

Some specifications that I have thought of in the transfer of the technology to American Indian Nations have to do with translation issues. An example could be an area or areas that the Indian people speak their Native language and to some extent, those that are bilingual or trilingual. As a way to translate the system, they might consider bilingual or tri-lingual training guides for the projects. I use this example because the formats of our language or languages form our perspectives and the way we see things. In essence, the language may be a key aspect to the formation of our world view. Yet, even without total translation of the language, Indian perspectives should be looked at. If a child's parents speak the native language but do not teach the child the language, they may still pass onto her the perspectives and meanings drawing from the language. On another note, many Indian languages have different terms and different meanings to subjects than American-English terms. For instance, a native language may use different terms for the sun that emphasize varying significance. An illustration of this is the different terms that American-English has for water -- rain, lake, drinking water, stream, steam, ice, etc. This can pose a challenge then, because translations do not necessarily fit the

significance and meaning in another language. Technical terms may also pose difficulty in conveying one language to another. Perhaps linguistic specialists can aid in translating technical language. Ultimately, however, the aim is to enable the Indian person understand. I assert that the best way to aid their understanding and thus transfer the technology, is in the way that an Indian understands things, their language.

Moreover, Tribes themselves should be able to articulate Tribal perspectives and goals so that the members know, as well as to provide information to potential partners. Community development workshops may allow methods to accomplish this. For instance, the Council of Energy Resource Tribes offers a facilitation program that constructs a synopsis of Tribal values, goals, and priorities.

Another means for translating the ideas to non-Indians is through the use of ethnographic studies. With the particular Renewable Technology in mind, ethnographic studies may allow some means to culturally translate and articulate the particular Tribe's world view not only to the non-Indian, but to themselves. This idea can provide information about how the technology may be applicable within the Indian world view.

Another consideration for transference is the utilization and mobilization of the local technicians and entrepreneurs that could provide the means for sales and service of the parts, as well as act as a liaison between the partner and the Tribe. These people would know the norms and values of the local community enabling them to more easily access the community's trust. The main point, again, is to make the technology fit the local culture and thus the world view of the Indian people.

In conclusion, we have seen that the development of Renewable Energy Technologies can take place only with dedicated people from Indian Nations and Industry. Each of these facets must work together so that the transference is effective and in compliance with Tribal goals and priorities of the Indian Nation. Ultimately, from this research, I conclude that Indian Nations favor development of Renewable Energy Technologies on their lands if it is completed in a way that fits into their world view and does not threaten through infringing upon their lands or sacred sites.

To industry, there are barriers to the development of the renewables. The barriers exist if the company does not dedicate itself to the priorities of the Indian Nation. It seems that most of those priorities are economic development in compliance with the norms and values of their Indian culture and community. Indian Nations have much to offer in the development of the

Renewable Energy Technology. They could use it for their community development which aids in the promotion of it, as well as provide the outer world with energy from their resources. If the Developing Countries of the World can develop the technologies and American companies are aiding in that development, then these American companies surely can work with the indigenous populations of the United States.

Lastly, the Council of Energy Resource Tribes' motto is that Indian Tribes are going into the next century on our own terms. Some of what I have brought up in this paper are those terms. From the industry perspective, those may be considered barriers. I believe that Indian people are pretty secure in those terms, therefore it seems to be up to the Industry to overcome the barriers. After all, we as Indian people, have survived a long time on our lands without access to some of the non-Indian developments. We surely can survive with or without it into the future. The question therefore is in what ways we can survive. Renewable Energy Technologies may be one of those ways, but we have to define it on our own terms, with our own world views; and with the cooperation of corporate partnerships' support, we can take on this endeavor.

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**COUNCIL OF ENERGY RESOURCE TRIBES**

**BNFL INC. - SELLEFIELD, LONDON, ENGLAND**

**1993 SUMMER INTERNSHIP PROGRAM**

**MARIA A. PEREZ, INTERN**

- **PERSONAL STATEMENT**
- **RESUME**
- **REPORT**

## **Maria A. Perez**

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I am of Tiwa and Hispanic decent. I was raised in Las Vegas, Nevada, by my parents Margaret and Frank J. Perez.

Although I was raised in what is considered the sin capital of the world, my parents kept me on the straight and narrow by encouraging my involvement in both academic and extracurricular activities. I attended public schools and was raised mainly in a white society. I was keen on topics of racial issues and discrimination which is discussed in many books and also obvious in everyday life. I experienced discrimination to a certain degree when I visited my relatives on the reservation, for I was the white relative from Vegas. My summer as a student in the TRIBES program opened my eyes to many Indian customs and beliefs that I had only seen as a child, but had never asked about the reasons behind them. I felt I needed to become more involved in tribal issues if I could not physically be a part of my tribe in New Mexico.

After TRIBES, I began my four year undergraduate degree at Claremont McKenna College in Claremont, CA. This summer when I was presented with the opportunity to work for CERT, I jumped at the chance. My summer assignment was to look at an established visitors center for a nuclear company in England. I spent five weeks at British Nuclear Fuel's Sellafield Visitors Center. My main objective was to look into how British Nuclear Fuels worked with the community and media and what made the Visitors Center such a success. I attended meetings pertaining to information services, education, tourism, media relations and community involvement. BNFL has five different sites where various operation are performed, and was fortunate to have toured three of them, Springfield, Chapel Cross and of course Sellafield. During my stay I became interested in the education programs provided and supplemented by BNFL and the education programs provided here in the United States. My next step is to become part of a team that will adapt different educational programs so that they are culturally suitable for schools in Indian Country.

Being the first of the CERT interns to have a special assignment outside of the United States, I think that the lessons on life and how to live within a different culture without losing my own beliefs are the main things I have learned. Also, to actually see what people in another country think of Indian peoples, or rather do not think of Indian peoples was an eye opening experience. I believe now more than ever that we as Indians must stand together and defend the sovereign rites which our ancestors fought and died for. Indian people must communicate to the world that we do actually exist, that reservations are not a bleep in history long forgotten, and that we have a rich culture to share with the world.

I would like to give special thanks to the helpfulness and friendship that my supervisors and mentors gave me during my stay abroad; especially Penelope Cater, Duncan Jackson, Catherine Giel, Marie Shawcross, Sarah Birtles and Mahmood Ahmed. Ta!

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**COUNCIL OF ENERGY RESOURCES TRIBES**

**1993 SUMMER INTERNSHIP REPORT**

**BNFL INC. - SELLEFIELD, LONDON, ENGLAND**

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**August 1993**

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## INTRODUCTION

Over the past eleven years a number of events have brought tribal lands into the forefront as possible hosts for a Monitored Retrievable Storage (MRS) facility.<sup>1</sup> The last of these events was the Nuclear Waste Policy Amendments Act (NWPAA) of 1987 that created the Office of the Nuclear Waste Negotiator along with the Monitored Retrievable Storage Review Commission to find a site willing and able for temporary storage of commercially spent fuel. The Mescalero Apache Tribe was the first community to acknowledge an interest in hosting such a facility, and they began their dealings with the Nuclear Waste Negotiator's Office a few years ago. It was obvious from the beginning that this interest in an MRS on Tribal land was not looked upon kindly by either the surrounding communities or the media. Negative press immediately began with hard hitting comments such as, "...the Indians, of all people, whose culture is based on harmony with nature, will make themselves the clowns of the nuclear industry and desecrate their sacred grounds!" as well as, "Only the poor, the desperate or the stupid would agree to such a doubtful project."<sup>2</sup> The Mescaleros had to start fighting a seemingly uphill battle to educate the community and the media to their true intentions, interests and goals of educating and training their people so that they can make an educated decision on whether or not to host an MRS facility.

Education and information provision should be the main ways of counterattacking the negative publicity already in circulation. Over the past twenty odd years the information about the nuclear industry in general has been overpoweringly negative. When the information going out to the masses about a single, isolated topic is predominantly negative then of course most people follow suit by responding negatively to nuclear power, and especially nuclear "waste". To overcome this negative publicity there needs to be an "open door" policy in the sharing of facts and information about past, present and future events.

This report will give some suggested guidelines for establishing education and information programs starting with a community emphasis and broadening out to the public as a whole. It will also discuss media tactics; how to put across the message intended, and to avoid the stigma of secrecy associate with the past nuclear industry. Once these stigma are sorted, the final product should be a common ground of trust and respect. These suggestions are inclusive of observations made while at British Nuclear Fuels Visitors Center in Sellafield. Consultations

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<sup>1</sup> For detailed summary refer to the State Legislative Report by Alex White Tail Feather, *Monitored Retrievable Storage of Spent Fuel: 1992 Update* Vol. 18, No.1, January 1993.

<sup>2</sup> Biehl, Maria, *Red Power*, Marie Claire, April 1993, translation.

with current employees in the following areas have provided the framework for the suggestions that appear in this report: Media Relations, Information Services, Public relations, Visitors Center staff and Education.

### **Community, Tribe and Government Harmony?**

Community education and involvement are issues of great importance. Respect and trust among people in the community with the tribe as well as that between the Office of the Nuclear Negotiators and the Tribe will take time, but both are essential for a successful MRS site. Stereotypes attached to Indians and those attached to government agencies must both be addressed. This can be accomplished through open forums where all parties involved come together, leave their political and social titles at the door and engage in straightforward and honest conversation. This will by no means be easy, as a matter of fact, it will probably be quite frustrating at first because of varied backgrounds and different communication styles.

The very historical relationship between Indian nations and the United States government will be one of the first areas of conflict. Many people from the "white" community see history as just that, history. Not many people place an emotional tie to the hardships and trials of their great, great grandfathers. But, Indians are just the opposite. The very basis of their beliefs comes from the long term relationship of respect and coexistence with all elements of nature. History to an Indian is his background, his foundation, while history to most of those from white society is just that, a detached part of the past. Looking back at the historical relationship of the United States government's treatment of the Indians, we can discern a pattern: promises then betrayal, new promises then betrayal and yet more promises and betrayals. The first Indian barrier to be broken is one of suspicion and mistrust towards the very government that have done nothing but break promise after promise. The ideology that what is the past is the past will not be sufficient for Indian leaders. The past is not a crutch that Indians use for sympathy, it is more like a constant reminder to them of what can happen when they are too trusting and let others make decisions for them. Those delegates assigned to work with the Indian nations have the obligation to put themselves on the line as a true ambassador of this country and must prove their worthiness.

A general respect for differences in cultures is a key element for establishing a good relationship. Some inherent beliefs of Indian culture that should be discussed are: government by consensus, respect for nature, seven generations into the future planning, contract by word of mouth versus written contracts, and other aspects specific to the Tribe. These outlooks of Indian people are actually very rare idealisms compared to the beliefs of mainstream American society. Sharing

these beliefs with the community and government representatives does not necessarily mean they will begin to believe in them; it simply gives an insight into how and why Indians make the decisions that they do. In return for their chance to voice their beliefs, Indians must then be willing to listen to the goals of the government in their search for a voluntary MRS host for this project. It is a fact that this policy of inviting Tribes and state governments to voluntarily research the planned MRS site in their lands has never been tried before. This search for a voluntary MRS site is the first of its kind for the United States government's nuclear policy. The old method of decide, announce, defend has been eliminated, and has been replaced by open discussions and voluntary involvement. Respecting the positions of all parties involved is essential for trust relationships to form.

At BNFL there is a saying, "A message sent is not necessarily a message heard," that should be kept in the back of people's minds. Although talks between different groups may appear to stimulate wonderful insights that should be accepted and develop into mutual respect and friendship, people still ingest information through their own cultural and religious screens. Speeches are all well and good to inform the masses in certain forums, but in regard to the dealings of the MRS project it is time to discuss and clarify what needs to be accomplished in the grand scheme as well as the actual responsibilities and benefits expected by all parties involved.

### **Community Perception**

Moving on to tribal and community discussion groups, one issue that must be addressed from the beginning is the normalization of nuclear waste management. Normalization is a term used for making an industry which initially appears to be inhuman or life threatening into one that is more ordinary, or human if you will. It is an exercise in "showing, by comparison, that the nuclear industry is not essentially different from any other industry and is within the compass of experiences that we all share."<sup>3</sup> This normalization of the nuclear industry has proven to be extremely difficult; but the message that must be provided can be accomplished by listing the jobs that will be available through the MRS project yet do not necessarily require prior nuclear hazard and safety training such as nurses, cooks, janitors, etc. Admittedly there will be many technical positions at an MRS site, but there will also be a great number of non-nuclear jobs that should be open to the tribal community from the beginning of the MRS hiring process. Community benefits of non-nuclear job opportunities as well as funded educational training for tribal and community members are another attractive benefit that should be discussed. This

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<sup>3</sup> Quote from fax communication between myself and Duncan Jackson, August 11, 1993.

training and eventual employment of locals at the MRS site is a strong foundation for their employment opportunities in the nuclear industry. They will become a highly skilled and disciplined work force that will be in demand in the years to come as aging nuclear power plants need to be decommissioned and as new plants are built.

As the community is trained, it will actually incorporate "nuclear" issues into everyday life, such that the culture itself will embrace nuclear. In and around the Sellafield site, nuclear energy, reprocessing, contamination and many other nuclear related topics are easily raised in social circumstances such as households, pubs, and schools. When the issue of nuclear is raised here in the United States, heated arguments usually follow. Emotional reactions are generally due to people's fear of the unknown. Nuclear energy and waste management in this country are greatly misunderstood or simply foreign to much of the population. This is where education and information provision play a vital role in creating support or at least understanding for an MRS site.

Eventual acceptance within the community will occur over time, and when it happens there will be two main categories into which people will eventually fall: one of true support and one of mere acceptance. The former because they will believe that it is in the country's and their own best interest to host such a facility. And the latter form of acceptance because although they may not "trust" in the nuclear industry, they will not argue with the company that puts the food on their families' tables.

### **Community Liaison Team**

A community liaison team is another tool for getting the community involved into discussions and idea exchanging about the nuclear issues. A team rather than one or two individuals is recommended since a team of people pooling their knowledge and relating slightly different points of view about the same topic adds richness to the information provided to the community. Liaison volunteers must be people who believe in the credibility and the safety of the project they are researching. Responsibilities of the community liaison team are two fold. One is to have credible and personable representatives of the Tribe go out into the community in their off hours and present the Tribal point of view pertaining to current MRS investigations. The other is to have this team of technically knowledgeable tribal people as a resource for students of all ages, ranging from elementary to college, who can give academic guidance. The first responsibility is based upon the foundation that each person of the liaison team truly and whole heartily supports the efforts of the Tribe and that each person is willing to take on the time and effort obligation of sharing their opinions and expertise with other members of the

Tribe and the surrounding communities. Academic advisor, the other role that these liaisons would take on, will give young people a readily available and trustworthy resource for advice in technical fields, or they would be able to refer them to the appropriate source(s).

It should be stressed that this liaison team is a voluntary group of individuals who want to share their ideas, beliefs and technical expertise. It should by no means be an obligatory committee that has to log in hours every time they put forth the effort to help the community. The best people to do this type of community work will possess the interpersonal skills of empathy, and the ability to actively listen and communicate in a Tribal setting as well as in non-Indian atmosphere. This team will be the best link in bringing together the Tribe with members of surrounding communities.

### **Education**

The terminology used in this paper of information and education must be clarified for there is a fine line between the two. Education will be defined as the program or programs that are developed for youth to be used in a classroom type setting. Information will be defined as resources available and distributed among adults of tribal governments and the community surrounding the reservation. The first recommendations presented here pertain to youth education programs: the fastest, most efficient method of beginning a Tribe specific program.

On a small scale, meaning starting at one reservation, such as the Mescalero Apache Tribe the first step is to borrow from an already developed nuclear educational program. At the time, the Department of Energy has developed an education program to be implemented in a junior high school in the Las Vegas area. The Las Vegas site was pinpointed due to the close proximity to the proposed repository at Yucca Mountain as well as the established nuclear testing facilities. Other points of reference for educational packets are United Kingdom Nirex Limited (UK Nirex) and BNFL who have multimedia educational sources. The Environmental Protection Agency also has a series of workbooks designed to increase environmental awareness in students. A supplement to the books and packets utilized inside the classroom are hand's on programs that give students a chance to see for themselves different levels of radiation as well as experiments that deal with environmental cause-effect relationships. Some applicable kits are already in existence and can be obtained through the Department of Energy.

Once a source or sources are selected a pilot study using a modified version with references applicable to the tribe should be started. Being the first of its kind, this program will be vital as a foundation for future education programs on other reservations. Accompanying the actual

pilot study should be an "on the job" teacher who would be able to make modifications on a day to day basis. This core teacher will need to be well versed in nuclear issues and a keen observer to see what the students true responses to the program are. Two suggested methods for greater student participation are role playing and problem solving. Material may be presented in a good manner, but the main goal of the education program should be stimulate the creativity of the Indian students. They should be encouraged to explore different solutions to the waste management problems that the United States is faced with. Even if they do not come up with new solutions, they will have a better understanding of the need for an MRS site.

Looking at a larger scale program that could be implemented at a national or regional level has different criteria. Please refer to Appendix A for a brief outline of a suggested sequence of implementation.

### **Information Library**

The information center that the Mescaleros have established is a good start in an attempt to inform the tribe of the latest breaking news events pertaining to Monitored Retrievable Storage. Both their MRS UPDATE publication, and the availability and helpfulness of the staff on site are assets to their information provision efforts.

On the basis of observations while working at the BNFL Visitors Center in Sellafield, the following prerequisites for a thorough information library for the Mescaleros are recommended. Informational brochures and or packets which address the following topics should be collected and available: history of the tribe, goals of the Tribe in each phase of their MRS studies, technical information about the nuclear industry, community benefits, controversial statements with responses, anti-nuclear material, normalization examples and governmental safety regulations.

A relatively brief, yet comprehensive history of the Tribe will allow the public to see what the Tribe is about. Each individual has a preconception of Indians. Some still believe in the cigar store Indian that could be bribed with a bottle of whisky, others believe in a hostile group of people with no reason for anger and even less reason for special treatment by the US government. And yet others really do not acknowledge that Indians and reservations actually exist in the late twentieth century. But, even though everyone has their own personal perception of what a Tribe is and what Indian beliefs are, if the information is provided straight away, then there is no room for speculation; in turn, there will be no misconceptions. Instead of misguided perceptions of how some Indians may have been in the past, this Tribal history will illustrate the strength and adaptiveness that the Mescaleros have used for their survival and prosperity. This

description of the Tribe can carry over into the intentions of the Tribe in their studies if an MRS site was to be constructed on tribal lands. It should be known that the MRS is for waste management and the tribe as a host of the MRS has the opportunity to make a significant contribution to clearing up the country's past problems. This is a major market opportunity and an ecologically worthwhile pursuit which the tribal community should be proud of.

Technical information about the nuclear industry is easily obtainable. The Department of Energy as well as various nuclear power producers have quite a few publications on general nuclear issues such as: radiation, nuclear power generation, nuclear waste management, transportation of nuclear waste, MRS history, and US waste management policies in perspective with those of other countries. These informational packets and brochures should be readily available to the public. And if the material that is already available does not meet the standard of the Tribe, then there should be an effort to create Tribally acceptable material.

People by nature are skeptical and concerned about issues that are foreign to them. Nuclear power and waste are not exactly foreign to most, but its mere mention evokes a strong emotional response. One way to make the facts of nuclear waste management seem less threatening or harmful to the environment and the people in it, is to point out the community benefits from having a temporary national dry storage facility. The primary benefit is that Indians, people who take their responsibilities to Mother Earth and future generation seriously, will be a major decision makers in the whole MRS processes. Other benefits include the jobs created by the site and industries that are attracted to the area along with educational funding so that locals will be able to fill the technical positions needed for the site. Also, those who work on the MRS site will then have a practical experience that will be needed when the planned underground repository opens. Always keep in mind that working in such a disciplined and regulated area such as nuclear waste management requires a great amount of knowledge of the nuclear industry, its benefits and its dangers. Future nuclear establishments or decommissioning projects will need that skilled, disciplined labor force.<sup>4</sup>

There will always be those skeptics and or anti-nuclear citizens that feel it their duty to make example of past problems, or incidents if you will, pertaining to the nuclear industry. The best response to their opposition is to have documented material on occurrences such as Chernobyl, Three Mile Island, Hanford, Atlantic se-dumping, submarine reactors and the Khysthm in the S. Urals. More times than not, uneasiness about the nuclear industry is due to lack of

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<sup>4</sup> More community benefits which the Mescaleros are asking for can be found in The Mescalero Apache Tribe's Approach to MRS Benefits Negotiation, 19 November 1992, Hudson Miller.

information. Thus, by openly addressing past errors of the nuclear industry, and illustrating how those incidents can not happen again, people generally reevaluate their opinion. Improvements in technology as well as more stringent government and industry regulations, usually help the idea of past incidents occurring again less prevalent in most minds.

Presenting anti-nuclear material to the public is another way of being open with the realities of the nuclear issue. People will be interested in what "the other side" has to say, and instead of having them go away feeling cheated or curious about those view points, it is advantageous to give them the other side while still at the information center. Then, after they have read both the pro-nuclear and anti-nuclear materials, it is up to them to inquire farther if their curiosity so persists. Or if their curiosity does not persist, they will hopefully have reached a point where they will have enough information to make an educated and rationally based stance on nuclear issues, rather than the emotional, knee-jerk stance taken by many Americans today.

Normalization, more thoroughly defined earlier in this paper, should put people in a position where they can see that the nuclear industry is much like other industries with which they are familiar. Examples of normalization are best presented through illustrations and pictures. Graphs and tables with percentages and numbers can not by any means have the same impact on an individual as actually seeing an employee in what is considered a "normal" job on a brochure or a poster produced by the Tribe.

A special section of the information library should be dedicated to responding to questions about nuclear accidents and mishaps. First, there should be a file of press releases from the actual time that the accident occurred and any subsequent articles. A response of how this incident could not happen again because of improvements in technology at the sites them selves as well as the implementation of more stringent safety regulations should also be on file. To adequately provide this information another file should have the government regulations pertaining to the different aspects of nuclear power, and most specifically the regulations pertaining to this new above ground high level storage. These regulations will be most useful if presented in two forms: the actual governmental version and also in a simplified version in layman's terms.

## Media

Negative publicity and coverage are inevitable, even with the best of educational and information provision efforts. The best motto when dealing with the media is to stay positive. Expect articles to give inaccurate and biased information, and keep responses factual and topical. When there is no positive way to respond to a commentary or article which is simply wrong and misrepresents the facts, then a hard hitting death count for death count retaliation is necessary (see Appendix B). Try to keep the opposing side's information out front, and give examples of how this information is inaccurate.

Another necessity when dealing with the media is to be the first to release the facts of developments, all developments. If a report begins, "an inside source claims" or "it has been discovered by..." then the Tribe is immediately put on the defensive. But if a press release is given before anyone has a chance to "leak" the information, then the articles will read, "it was reported by the Tribe that..." which lets the public know the Tribe is sharing information vital to public knowledge and safety rather than trying to be secretive. Releases of both negative and positive press should go to local and national sources.

Media relationships encompass more than just writing newspaper articles and press releases. It includes knowing where key people stand on the issues. This can be recorded by compiling a list of known community and government allies, anti's and agnostics. Allies must be kept informed on the latest breaking news so that they can rally support for the Tribe's decisions about the MRS investigations. Agnostics can be approached more at a corporate level. Present them with how these investigations and a possible MRS site in their area will benefit them personally or financially. When it comes to dealing with those individuals that are absolutely anti-nuclear, it is best to agree to disagree.

Media relationships should also include knowing where the newspaper editors and reporters stand on nuclear issues. Press officers and reporters themselves will give the facts their own personalized slant. In some cases, this will be advantageous for the Tribe, and in others it will be detrimental. The best to hope for is a balance of these two extremes. A good record should be kept of what the antis and the pros are saying so that those people running the information center can address these issues. Information truly is power, and with that power the Tribe can effectively communicate their position on the MRS project.

## A GLANCE INTO THE FUTURE

### Visitors Center

Looking into the future, a natural expansion of an information library is a visitors center. Complex as it may sound at first, it actually is just an enhancement of the information library previously discussed. An operating model of a nuclear visitors center is the BNFL Sellafield Visitors Center. They have on hand all of the following suggested materials and then some.

This new center at the MRS site should include actual examples of parts of the nuclear power productions and waste cycle, photographs and scaled down models of all steps of the nuclear energy production process, and some hands on materials that visitors can actually hold and examine for themselves. Examples of safe hands on materials are empty fuel rod canisters, uranium ore samples inside thick, clear plastic containers, kettle powered steam generators which produce energy in a manner similar to that of the nuclear power plant, minerals and everyday appliances (such as old watches) that a Geiger counter can pick up obvious radiation readings, just to name a few.<sup>5</sup> Aside from making the trip to the Visitors Center interesting, it will serve as a helping hand in the normalization process. Once a person has seen and touched tangible materials that were normally handled behind closed doors in the past, this usually helps to make the industry seem less harmful or secretive.

Applying a visitors center toward an MRS facility will be a large task. The coordination of a staff of information officers, a visit coordinator for large groups, a catering service, etc., will take a well trained and professional person to manage. As an example, Penelope Cater, the manager at Sellafield's Visitors Center compiled many different qualifications including an education in catering and working as the manager of a BNFL hostel, before taking on her current managerial position. The best way to begin developing a visitors center is to recruit a person with a personnel management background. They don't necessarily have to know everything about nuclear power and waste management, but they do need to be familiar with what people do know about various technical topics. There is more likely than not a manager at the Mescalero resort facilities who would be well qualified to manage a visitors center, but they must also be a person who is keen on acquiring and sharing information on new developments in energy production on the whole.

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<sup>5</sup> For more detailed information on the Sellafield Visitors Center write to Maria Perez at CERT or to the Sellafield Visitors Center, Sellafield, Whitehaven, Cumbria, CA20 1PG.

This is but an extremely brief explanation of some of the main elements needed for a successful visitors center. It should be noted that the Visitors Center in Sellafield started out as just an idea, much like this contemplation of a visitors center at an MRS site. The key to making this idea a reality is finding the correct personnel with the energy, enthusiasm and drive to carry this concept into a reality.

### **Speakers Panel**

Along the same lines as a community liaison team, a speakers panel would be an invaluable educational resource. Once a larger education program is established, this speakers panel would be available to go out to community schools and give short talks and demonstrations along the lines of environmental awareness for students. This team would be made up of staff of the MRS site who would be dismissed from their normal daily activities for a short period of time to participate in the education programs.

Why send representatives out into the schools? The visitors center described above would be a logical medium for public education, but reality dictates that many people, parents especially, who are scared of nuclear power and waste will simply refuse to make use of the center. If the Tribe can not get the children to the visitors center, then why not bring an ambassador of the MRS facility to the children. Many education programs are successful without the implementation of these speakers, but since the nuclear industry is currently such a controversial issue, it will take this extra effort and much patience to present educational information in a setting where students are truly open to learn.

### **SUMMARY**

We as Indian peoples are faced with an opportunity to help clean up and manage a potentially hazardous problem, that of high level nuclear waste. Proponents of the site being on Indian lands have a long road ahead of them that has new and more difficult obstacles around every corner. Facing the issue head on using factual information on possible dangers and probable benefits will allow Tribal leaders to make a sound and educated decision. This issue does not stop with an agreement between the Office of the Nuclear Negotiator and the elders of the Tribe, it has impacts on the surrounding community and local governments as well. Communications among the Tribe, their surrounding communities and government agencies are at a vital juncture at the present time. Relationships that are developed from this point on need to be based on mutual respect and trust. I believe this can be done through open discussions that give everyone

the opportunity to address where they stand as it pertains to the MRS site, and to ask for clarification on others point of view.

Fear of the unknown and misunderstood facts of the nuclear industry have already caused negative reactions in and around the Mescalero community. The education program and information library discussed in this report are the best weapons in fighting the ignorance about nuclear issues that is prevalent in mainstream society. Education and information provision, when handled properly will create a win, win situation. It is of the utmost importance that the Mescaleros start targeting people in their tribe or recruiting other reliable people to take on the various tasks of educating the young and providing information about the nuclear industry to the masses. The sooner this effort is begun, the sooner an answer to the question of hosting an MRS facility will make itself apparent.

## Appendix A

### General Education (going into public school curriculum)

#### A. Packet Production:

1. Recruit a team of educators: There is no better source than an educator who knows the intellectual level of their own students.
  - (a) Keep them focused on a common goal
  - (b) Give them free license, with stipulation of modifications...establishes a sort of ownership.
2. Format is vital. If the material is incredible, but not in a usable classroom format it will only collect dust.
  - (a) One program for adults at one sitting
  - (b) Modular system that can fit into a diverse array of education.
3. Give work to technicians to revise the educator material.
  - (a) Factual without changing meaning
  - (b) Use vocabulary hitting the targeted age group, as well as being careful to use examples that any nationality would relate to.

#### B. Distribution:

1. To the correct people, ones who will see the program implemented.
2. Follow up to see if people are actually using it.
3. Area availability
  - (a) Free to areas in a close proximity to the Tribe
  - (b) Charge for broader areas

## Appendix B

"Misleading comparisons" from *Whitehaven News*, July 14, 1993.

SIR, - Coun. MacCready (WN July 1) draws a number of comparisons between nuclear and fossil-fuel power stations which are potentially misleading.

Frankly I do not favor exchanging 'catalogues of doom' based on isolated accidents since our concern should be to improve the safety standards everywhere. Nonetheless, when discussing nuclear accidents perhaps Coun MacCready would find the following points useful.

- \* The Windscale Fire of 1957 has not been shown to have killed anyone as a result of radiation. Yet, since 1945, more than 2,000 coal miners have died as a result of pit accidents and many more have faced life shortening diseases. The alleged link between nuclear power and childhood leukemia is contested and rapidly being seen as unlikely in scientific circles. The fact of 147 deaths (mostly children) from the coal spoil tip slipping at Aberfan in 1966 is beyond dispute.
- \* The American "Three Mile Island" accident caused no harm to the local populace, although several thousands were temporarily evacuated. Yet the 1984 natural gas explosion at Mexico City killed 500 people, injured more than 4,000 and left 31,000 homeless.
- \* The Chernobyl accident is known to have killed 31 people direct. It also contaminated land and may contribute to some types of cancers. Yet, in terms of known impact, the chemical plant explosion at Bhopal in 1984, resulted in more than 2,000 deaths as a direct result and 200,000 are still suffering serious health effects.

Accidents have happened across the board in the fossil fuel industry, the nuclear industry and the chemical industry. I have no doubt that the other industries have responded as responsibly as the nuclear industry to ensure that there will be no repetitions.

A one-sided list such as that presented by Coun. MacCready does not help either considered discussions or the promotion of a culture continually improving standards of safety.

Duncan Jackson, Public Relations Manager BNFL Sellafield.

**COUNCIL OF ENERGY RESOURCE TRIBES**

**WRIGHT WATER ENGINEERS  
1993 SUMMER INTERNSHIP PROGRAM**

**DAMEN SACOMAN, INTERN**

- **PERSONAL STATEMENT**
- **RESUME**
- **REPORT**

## **Damen M. Sacoman**

---

I am a member of the Mescalero Apache Tribe of New Mexico. My grandmother was born on the Mescalero reservation in 1922 but was not considered a U.S. citizen until 1932. I have not known the pain of having no home, being herded like cattle, or having barely enough food to survive. These are all agonies endured by my ancestors barely two generations ago. Compared to these struggles, my life has been easy. My worries include what grade I got on my last chemistry test or if I will have time to go to the gym today. The agonies of ancestors' have given me the opportunity to live a happy life.

My father is non-Indian and works for the government so I have grown up far away from my reservation (North Dakota and Alaska) mostly with non-Indians. Through my mother and her family I have always been aware of my culture, but only over the past few years have I realized how important it is. Now living in the Southwest, I have spent more time on my reservation and feel I am becoming more connected to my culture.

In May of 1994 I will graduate from the University of Arizona with a Bachelor of Science degree in Biochemistry. Currently, I am in the year-long process of applying to medical school and hope to begin in the Fall of 1994. I have had experience with Orthopedics and Sports Medicine but am not sure what field I will pursue five years from now. Traditional medicine men follow a philosophy of treating the person and not just the problem. I hope to combine this philosophy with the technologies of modern medicine. Modern medicine is beginning to realize the benefits of this kind of thinking as indicated by the recent formation of a Division of Alternative Medicine at the U.S. National Institutes of Health.

**Damen M. Sacoman**  
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---

**Education**

University of Arizona, Tucson, AZ  
Major: Biochemistry  
B.S. expected May 1994

Minot High School, Minot, ND. Graduated 1990

**Experience**

- Summer 1993 - Internship with Council of Energy Resource Tribes (CERT) and Wright Water Engineers, Denver, CO.

Experience includes computer analysis of well systems and research of large scale groundwater monitoring program

- May 1991 to May 1993 - Undergraduate Research Assistant with J. A. Szivek, PhD., Director, Orthopedic Research Lab, University of Arizona Health Sciences Center.

Experience includes development of computer aided image analysis of bone sectional properties, histomorphometry of bone cells using light transmitted and fluorescence microscopy

**Presentations**

- Symmetry of Biomechanical Properties in Canine Femora, R.C. Kersey, J.A. Szivek, D. Sacoman, The 19th Annual Meeting of the Society for Biomaterials, Birmingham, Alabama, April 1993.
- Tibio-Femoral Contact and Stress Distribution Evaluation of Total Knee Replacements, J.A. Szivek, L. Cutignola, D. Sacoman, R.G. Volz, The Second International Knee Symposium, Tucson, Arizona, May 1992.

**Awards and Honors**

- Coalition to Increase Minority Degrees (CIMD) research grant Spring and Summer 1992, Spring 1993
- Phi Eta Sigma National Collegiate Honor Society
- Interviewed on "Arizona Alumni" TV program for participation in U. of Arizona Minority High School Research Apprenticeship Program, aired fall 1992 on KUAT (Tucson)

**Extracurricular Activities**

- 1990-91 member, U. of Arizona Marching Band, Wind Ensemble, and TubaCats
- Intramural football, basketball, and softball

**COUNCIL OF ENERGY RESOURCES TRIBES**

**1993 SUMMER INTERNSHIP REPORT**

**WRIGHT WATER ENGINEERS**

**Prepared by**

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## WRIGHT WATER ENGINEERS

Wright Water Engineers (WWE) is an environmental consulting firm consisting of approximately 30 full-time employees. The company offers a broad range of specialized planning and engineering services to meet the diverse water resources needs and requirements of the client. The staff of engineers, geologists, and environmental scientists provides services ranging from planning investigations to the design and construction supervision of water facilities for agriculture and industry. Examples of services provided include agricultural engineering (irrigation canals and reservoirs), wastewater management, groundwater development (well field design, aquifer evaluation), and storm drainage and flood control.

### Introduction to Groundwater

Because we see lakes, rivers and corresponding dams, levees, artificial reservoirs and irrigation canals, it is natural that people tend to think of that water as the major source for the world's needs. Actually, it water beneath the ground (groundwater) that accounts for over 97% of Earth's available fresh water. Fresh water in lakes and streams only represent water in transit while groundwater represents water in storage.

Many of our ancient civilizations utilized supplies of groundwater as well as surface waters. The ancient Persians constructed tunnels and shafts to tap groundwater and early Egyptians and Chinese used drilling methods to sink boreholes to obtain water from underground sources. Now that surface waters are becoming more and more exhausted, in terms of quality and quantity, groundwater is gaining importance.

As an intern, I worked on a variety of jobs mostly under the groundwater specialists of WWE. Groundwater engineering is a combination of geology, hydrology, engineering, and water rights. The following is an overview of three of the projects worked on over the summer.

#### **I. Well Analysis**

Extraction of water from a groundwater source is usually accomplished by drilling a well. Planning and construction of a well, or well field, is not a routine process. The variability of geologic conditions and groundwater occurrence are extensive and can make each operation somewhat of an exploratory undertaking. Wright Water's objective is to use the most up to date groundwater technologies and techniques to alleviate the variables associated with the development of a well system.

To evaluate the performance of newly drilled wells a pumping test is done to "see what she'll do." Although this is the basic idea, it is a little more complicated. Pump tests provide information not only about the performance and efficiency of the well being pumped but also about principle factors of aquifer performance. An aquifer is any geologic formation that is porous, permeable and stores and transmits significant amounts of water. Tests are important because any given aquifer will store and transmit water differently.

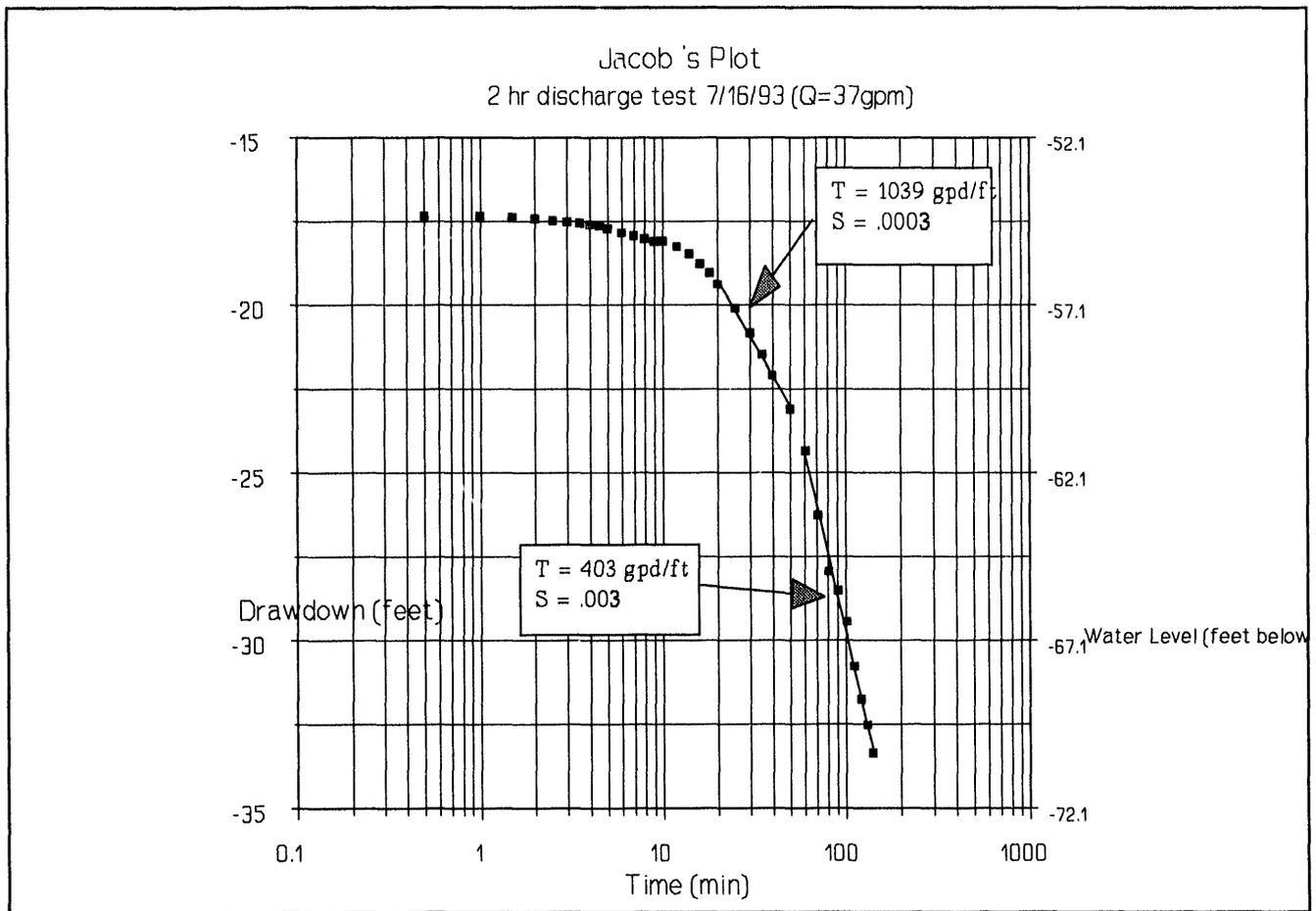
A pumping test consists of pumping a well at a measured pumping rate while recording the decline in water level (drawdown) in the pumped well and in other nearby observation wells. Measurements recorded include static water levels before pumping is started, rate of discharge from the pumped well, and dynamic water levels during the pumping period and after the pumping is stopped (recovery).

My task was to use this data to plot and analyze graphs to determine characteristics of the groundwater and its aquifer (see figure 1). Different specialized equations are applied to the key factors of pumping rate, drawdown, and time. Two important geologic characteristics determined from these equations include the ability of water to flow through the soil, known as its transmissivity, and the ability of the soil to hold water, known as its specific yield. These values aid in establishing a pumping rate which the well and aquifer can adequately support. If water is pumped too fast, the aquifer will be depleted and the well will run dry. Our goal is to establish a well system which will supply the client with sufficient water in the present and future.

## **II. Rocky Flats Plant**

The Rocky Flats Plant (RFP) has been part of a nationwide Department of Energy (DOE) complex for research, development, and production of nuclear weapons. Built in 1952, the plant was responsible for fabricating nuclear weapons components from plutonium, uranium, beryllium, and stainless steel. The mission changed in early 1992 with the cancellation of many planned weapons systems. No longer producing weapons components, the plant is in a transition phase of decontamination and decommissioning in which it is attempting to comply with environmental regulatory requirements.

I worked on a report of the condition of the Groundwater Monitoring Program at the Rocky Flats Plant. Initiated in 1960, the RFP Groundwater Monitoring Program provides data on radionuclide and chemical contaminants present in groundwater. As



**Figure 1** Plotted pumping test indicating transmissivity (T) and specific yield (S), gpm = gallons per minute, gpd/ft = gallons per day per foot

environmental regulations have evolved and expanded, changes have occurred in the program such as the installation of many additional monitoring wells. My task was to find the reasons each of the nearly 550 monitoring wells installed since 1960 were drilled. This involved several trips to the Rocky Flats Plant environmental library and interviews with plant managers and outside contractors. I compiled my findings into a 16-page data file that is part of the groundwater report (see figure 2).

Wells were installed for many different reasons and under many different programs. Many of the wells serve purposes no longer necessary and the large expense of maintaining and sampling these wells could be put to better use. My work will help to determine which wells are still needed in the present groundwater program and if additional monitoring is required.

### **III. Standing Rock Sioux**

Water rights can be a controversial issue on Indian reservations. I worked on a water rights job with the Standing Rock Sioux Reservation in North Dakota. Because this was a new job for WWE, I did not have the chance to get very involved. Water rights is a very complicated issue and I will only mention the small part of the issue to which I was exposed.

When determining how much water a land owner (or reservation) is allowed to take out of a stream or river, the law states that the uses of the water need to be claimed. One of these uses is irrigation of cropland. By analyzing soil types and their distributions throughout a designated area, our job as a consulting firm is to predict how many acres of land can be practically used for irrigated cropland. Using aerial photographs and soil classifications provided by the state, I performed a preliminary screening of the lands in North Dakota belonging to the Standing Rock Sioux Tribe. The next step will be to verify our findings in the field and to prepare our work for a court of law.

### **Conclusions**

All my life I've taken water for granted and now I'm amazed at how many issues there are concerning this invaluable substance. I experienced many things while working with Wright Water. As well as learning basic hydrology and geology, I improved my computer skills and communication abilities.

#	WELL NAME	WELL STATUS	WELL CLASS	WELL COMPLETION	PURPOSE
110	5486	ACTIVE	Special Purpose	BEDROCK	general site characteristics
111	5586	ACTIVE	Background	ALLUVIUM	"
112	5686	ACTIVE	CERCLA	ALLUVIUM	monitor groundwater in Woman Creek Drainage and downgradient of ash pits
113	5786	ACTIVE	CERCLA	ALLUVIUM	monitor groundwater in Woman Creek Drainage and downgradient of original landfill
114	5886	ACTIVE	CERCLA	ALLUVIUM	monitor groundwater in Woman Creek Drainage Basin
115	5986	ABANDONED	Special Purpose	BEDROCK	monitor groundwater downgradient of IHSS 130 & upgradient of S. Interceptor Ditch
116	5986R	ABANDONED	Special Purpose	ALLUVIUM	" replaced Well 5986
117	6086	INACTIVE	Special Purpose	ALLUVIUM	monitor groundwater downgradient of IHSS 130 and other 881 Hillside IHSSs
118	6186	ACTIVE	Special Purpose	ALLUVIUM	monitor groundwater in manufacturing area
119	6286	ACTIVE	CERCLA	BEDROCK	monitor groundwater downgradient of 903 Pad and IHSS 119.2
120	6386	ACTIVE	CERCLA	ALLUVIUM	"
121	6486	ACTIVE	CERCLA	ALLUVIUM	monitor groundwater near Woman Creek Drainage Basin & downgradient of
122	6586	ACTIVE	CERCLA	ALLUVIUM	IHSSs in OU1 & OU2
123	6686	ACTIVE	CERCLA	ALLUVIUM	monitor groundwater in Woman Creek Drainage Basin
124	6786	ACTIVE	Boundary	ALLUVIUM	proposed RFP-wide RCRA point of compliance well downgradient of E. Trenches & E. Sp
125	6886	ACTIVE	CERCLA	ALLUVIUM	monitor groundwater near Woman Creek Drainage Basin
126	6986	ABANDONED	Special Purpose	ALLUVIUM	monitor groundwater downgradient of IHSS 130
127	7086	ACTIVE	CERCLA	ALLUVIUM	monitor groundwater near Woman Creek Drainage & downgradient of original landfill
128	0187	ACTIVE	CERCLA	ALLUVIUM	characterize groundwater of 881 Hillside & downgradient of IHSS 145
129	0287	ABANDONED	Special Purpose	ALLUVIUM	characterize groundwater of 881 Hillside & downgradient of IHSS 107
130	0387	ABANDONED	CERCLA	BEDROCK	"

Figure 2 Sample of table from groundwater report

My internship showed me that work is very different from academics in that things are unpredictable. Unlike scheduled tests and classes during school, deadlines change and problems often develop. This means to work with a consulting firm one must be an excellent communicator. Although things may not be going well, we must remain under control in the view of the client or lose business. Even as an intern, I spent time dealing with clients and other people outside the company. It can be tricky obtaining information from people who are either busy with their own jobs or are unwilling to speak with you.

Working with CERT and Wright Water gave me valuable knowledge that will help me with all I do in the future. My eyes were opened to many issues and skills which cannot be learned at a university. I hope many other Indian students have the opportunity to participate in programs such as this.

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**COUNCIL OF ENERGY RESOURCE TRIBES**

**WESTERN AREA POWER ADMINISTRATION**

**1993 SUMMER INTERNSHIP PROGRAM**

**LISA V. WAYNE, INTERN**

- **PERSONAL STATEMENT**
- **REPORT**

## **Lisa V. Wayne**

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I am full-blooded Navajo and was raised in Pecos, Texas. Therefore, my life has been different from the ways of traditional Indians. But, this has not hindered my involvement with Indian communities.

This is my second internship with the Council of Energy Resource Tribes, and my second summer to work for Western Area Power Administration (Western) in Golden, Co. I was fortunate to work with Division of Land, supervised by Steve Warner. We tried to focus my summer learning experience around learning more about the negotiating process that takes place within Western. I can say our objective was met, and perhaps surpassed.

Currently, I am a senior at New Mexico State University, in Las Cruces, New Mexico. I plan to receive a degree in Business Administration concentrating my efforts in Economics. Once I receive my Bachelor's degree, I plan to attend graduate school.

**COUNCIL OF ENERGY RESOURCES TRIBES**

**1993 SUMMER INTERNSHIP REPORT**

**WESTERN AREA POWER ADMINISTRATION**

**Prepared by**

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## **HISTORY OF WESTERN AND DOE**

Western Area Power Administration (Western) and DOE both began operation in the year of 1977. Of the two federal agencies, the Department of Energy (DOE) was the first to be established. August 1977 marks DOE's birthdate. That summer that Congress passed the Department of Energy Organization Act (DOE Act--42 U.S.C. 7101). "Creation of DOE had at least two purposes: (1)to manage the Federal Government's energy functions, and (2)to provide a mechanism through which a coordinated National policy could be formulated and implemented to deal with the Nation's energy problems."<sup>1</sup> This one Cabinet level department could now coordinate and administer major Federal energy functions.

Under the Act, several power marketing administrations; the Alaska (APA), Bonneville (BPA), Southeastern (SEPA), and the Southwestern Power Administration (SWPA), formerly under Department of Interior's Bureau of Reclamation (BuRec) were transferred to DOE. In assuming BuRec responsibilities, which included selling and transmission of electrical energy, "Section 641 of the Act transferred statutory power marketing and other BuRec authorities to a new power marketing administration (PMA)."<sup>2</sup> Thereby creating administration with the western United States, hence Western Area Power Administration (WAPA) was created.

## **THE PUBLIC PROCESS**

Everyday, wherever we go, we see transmission lines. These lines drape from big steel structures to small wooden T-poles, ultimately bringing electricity into our homes.

In the 30's, people were generally excited to see the bright shining lights that illuminated the big cities. However, over the years, that excitement has dimmed: electricity has become a standard utility for every home. As a result, attitudes have changed towards electric power suppliers who wish to expand.

In the 90's, increased environmental awareness has made it difficult to win the public support on certain projects. Individuals and whole communities often feel that their environment is not considered when a supplier is attempting to expand its operation. In response to these fears,

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<sup>1</sup>Power Marketing Orientation, Western Area Power. September 1989.

<sup>2</sup>Western Area Power Administration, Power Marketing Orientation, p.IV-2

under the "Administrative Procedure Act (APA--60 Stat.237), agencies are required to consider public comment during decision making and development of policy."<sup>3</sup>

We (the concerned public) need to understand the basic economics involved in beginning a transmission project. Simple economics will tell you...as America's population increases so will its demand for any product, including electricity. Therefore, we (the consumers) are the reason additional lines have to be constructed; we have grown accustomed to this product and can't live without it.

Western spends an enormous amount of time keeping the public well-informed on projects. In order to accomplish such a task, they must and are willing to leave the lines of communications open. Before any construction begins, "the public should understand the *need, purpose, and intention* for Western's construction project."<sup>4</sup> Western tries to reach interested individuals by distributing mass mailings, news releases, and radio announcements. At various planning stages, Western schedules public meetings within the proposed location, which are both formal and informal. To add to this, a description of the programs are printed in the Federal Register. Western's personnel conduct the public forums, presenting key information, and addressing all questions and concerns. Overall, the public participation process is designed to gather valuable input and additional insight that will definitely be reviewed and evaluated; outcomes may change the original plans. If we (the consumer) are concerned about the impacts a transmission line will have on our lives, this is the time to voice our opinions.

Overall, Western is a agency that delivers electrical power to its customers while *caring* about our communities and the quality of life it's residents have to offer.

## LAND ACQUISITION

Before any construction begins, the land within the corridor must be acquired. Acquisition of land is handled within Western's Division of Land (Lands). Figure 11 is a flow chart that visually describes the planning activities within various departments.

"Rights-of-way generically refer to any agreement or purchase that gives Western use of a strip of land necessary for construction and maintenance of a transmission line. This may be an

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<sup>3</sup>WAPA, Power Marketing Orientation, September 1989, p.VI-2

<sup>4</sup>WAPA, Power System Orientation, September 1987, p.6-2

easement, permit lease, or license. Access, initially, is needed to determine whether the land in question is suitable for consideration for a project, and secondly for repair and maintenance, if the line is constructed.

Western has the responsibility to fully compensate property owners for their interest in the land, based on an appraisal. The amount offered cannot be less than the approved appraisal. Appraisals are based on **reasonable** value within the surrounding area. Additional payment of damages to adjacent property also may be included.

In most Western acquisitions involving transmission lines, the landowner is asked for a grant of easement (*legal term referring to the specific agreement for purchase of rights*). Under the easement, Western acquires the right to locate, construct, operate, maintain, repair, rebuild, upgrade, remove, and to patrol the transmission within the easement area. The land-owners retain the right to use the easement area as long as uses do not interfere with Western operations.

In dealing with private landowners, Western has clout in the form of eminent domain (condemnation). Eminent domain means that a Government has the right to annex private land if it is important to the well-being of the Government's general public. If an agreement cannot be negotiated between Western and a private property owner, then Western may acquire the property by initiating eminent domain proceedings. Every effort is made, however, to negotiate a harmonious settlement, avoiding a trip to the courthouse, and possible ill will between the agency and the property owner."<sup>5</sup>

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<sup>5</sup>WAPA, Power System Orientation, September 1987, p.6-15

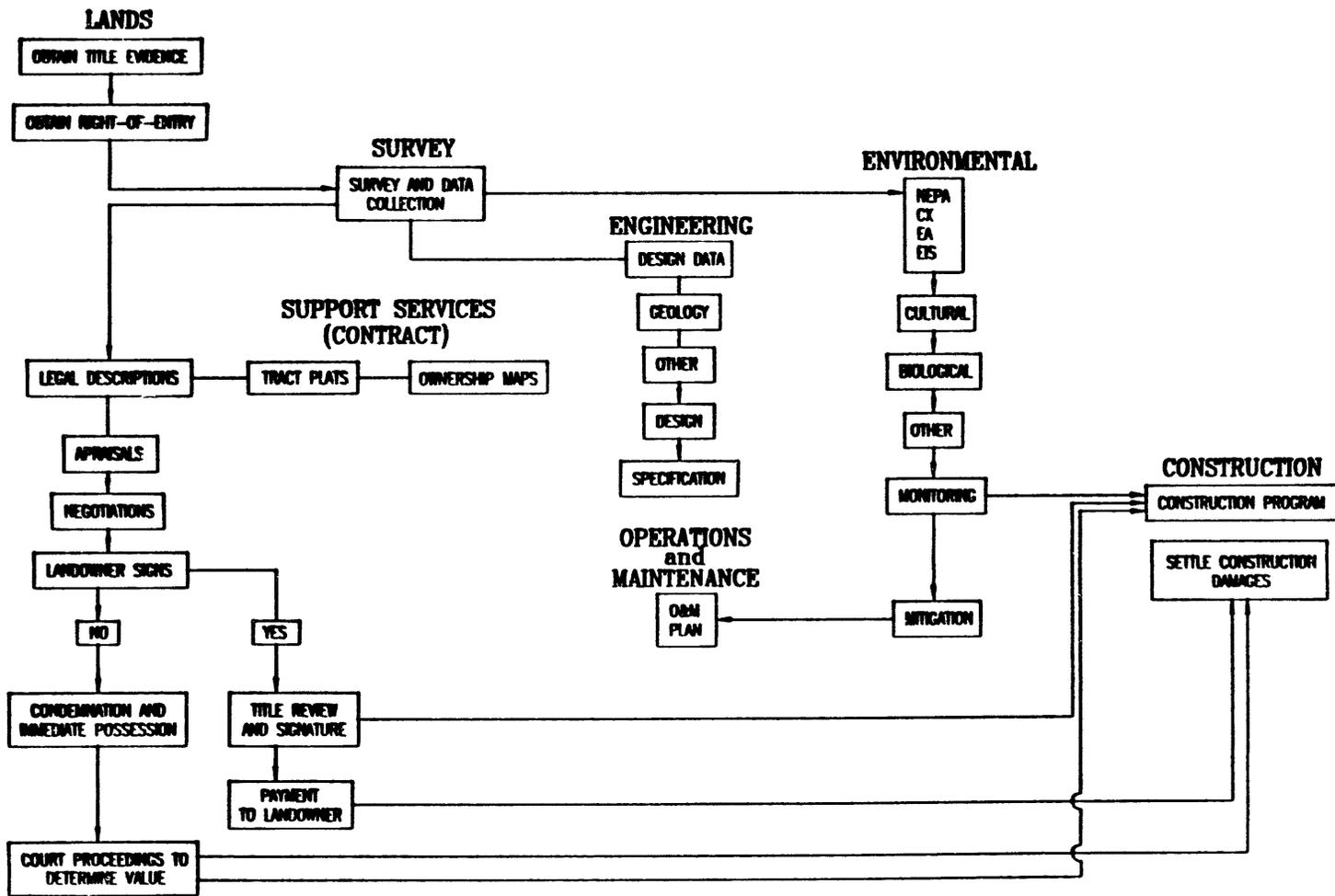


Figure 11

## ENVIRONMENTAL

Environmental protection is a movement that is growing throughout our society. With Western it continues to be a fundamental policy to carry out construction projects with the highest regard to the natural environment.

Western's Office of Environmental Affairs coordinates the environmental protection and enhancement during environmental planning for facilities. This process is required by law, as defined by the National Environmental Policy Act of 1969 (NEPA)(Public Law 91-190,42 USC 4321 et seq.). "NEPA establishes policy, sets goals, and provides means for carrying out the policy of protecting the nation's environment. In 1978, the Council on Environmental Quality (CEQ) issued regulations for implementing the procedural provisions of NEPA (40 CFR Parts 1500-1508)."<sup>6</sup> These detailed regulations are particularly critical before any action or decision can be made.

"The initial stages of environmental planning include an examination and analysis of the environment in and around the proposed project to identify problems and issues and determine the appropriate level of NEPA compliance (environmental assessment or environmental impact statement)."<sup>7</sup> An environmental impact statement (EIS) is necessary when potential significant impacts and/or public controversy have been *identified*. An environmental assessment (EA), is typically prepared when the potential for significant impacts is *unknown*, thus requiring less activities in certain areas of the process. Figures 9 and 10, provided by Dames & Moore have illustrated the major steps in the NEPA and EIS process.

Depending on the size of the project, several alternative routes are considered during the evaluation process but routes will be added or eliminated as the process continues, based on the environmental effects to the natural resources. Each alternate corridor represents a complete and reasonable route plan. Together, the corridors present a range of opportunities which address and, in part resolve the natural resource issues. A main factor in the resolution of these issues are resource inventory maps. "These are basis for the development of alternative corridors.

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<sup>6</sup>Dames & Moore, NTP Regional Environmental Feasibility Study, p.4-1

<sup>7</sup>WAPA, Power System Orientation, September 1987,p.6-6

Figure 9

### FEDERAL PROCESS NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

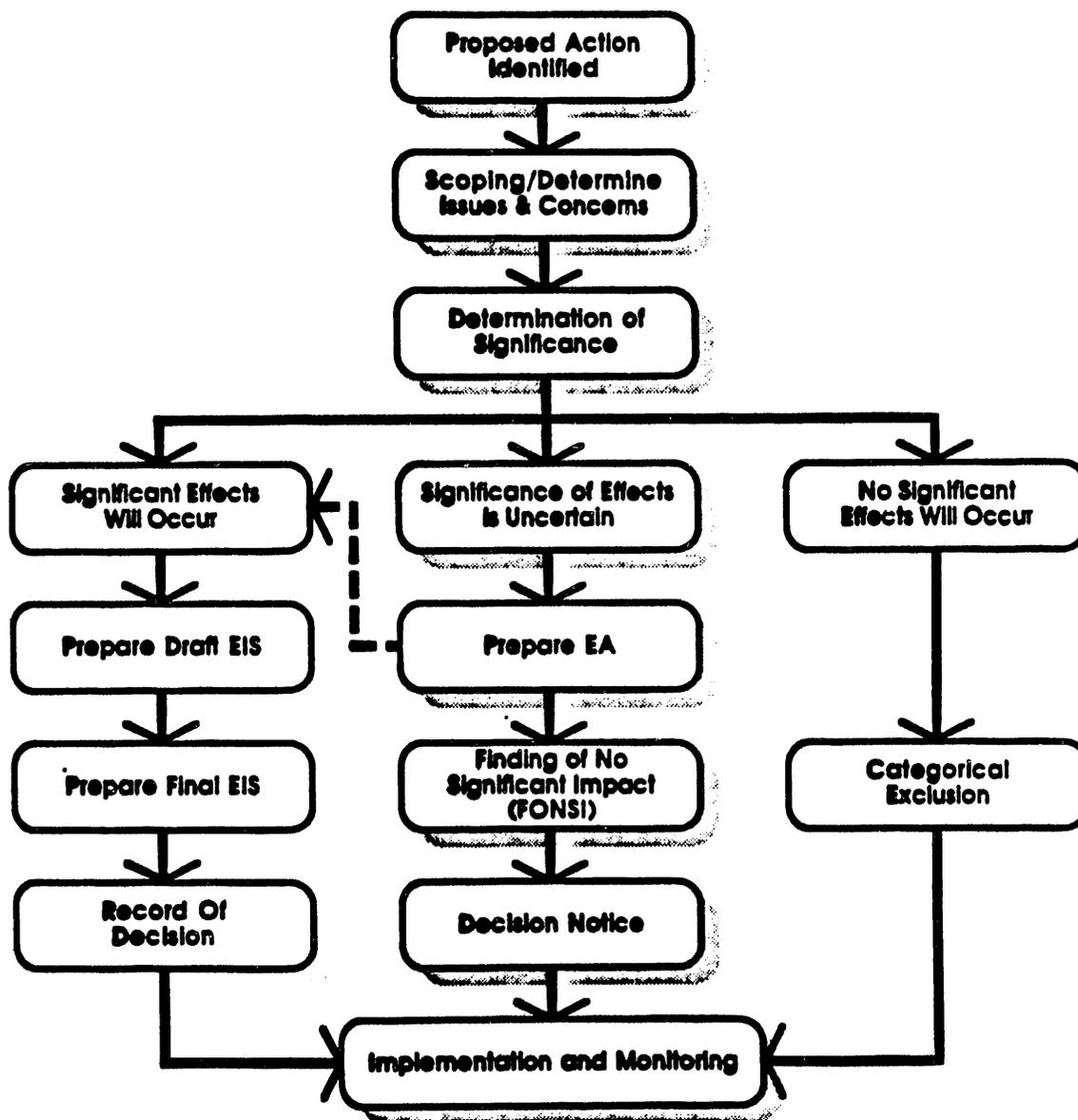
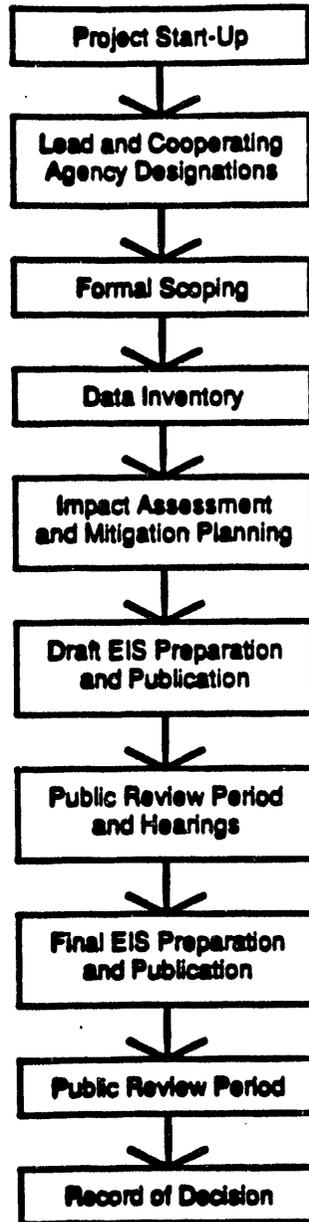


Figure 10

## MAJOR STEPS IN EIS PROCESS



Sensitivity maps are developed for each resource, identifying biological, visual, and cultural resources, and by means of a comparative analysis (an interdisciplinary process), the environmentally preferred alternative corridors are identified."<sup>8</sup> At this step of the evaluation process all the data is documented in a draft EIS for public review.

Referring to the draft EIS, 45-days are set aside for public hearings, these public comments are then analyzed and responded to, and the final EIS is published. The proposed transmission line route (TLR) and final EIS are distributed to the public in the final TLR/EIS document. A 30-day protest period is allowed before the TLR is adopted. A Record of Decision is published after a consideration of any protests. The final step involves monitoring and evaluating the resource conditions as the construction process is implemented. If monitoring shows that resource issues are not being satisfactorily resolved or the desired results outlined by the TLR are not being met, the plan may be amended or totally revised.

## CONCLUSION

I can only read about the incidents that happened long ago, when my people's homeland, as well as their rights to decision, were taken away. Fortunately, legislative people and their policies were not successful in their attempts to diminish the Indian way of life.

This summer, I have seen that in Indian country some tribes have persevered against the long history of poverty and powerlessness; whereas, other tribes are complacent or are continuing to struggle with Federal agencies, not to mention States and private corporations over land bases and natural resources. However, these current issues are no longer settled on the battle fields, but are now resolved on paper. Therefore, it is just as difficult to fight these agencies today as it was 200 years ago.

Through comprehensive planning, many tribes believe that moving towards management of their own natural resources will protect them. However, such extensive planning becomes irrelevant, if the tribe loses their water, wildlife, or mineral resources. In an effort to protect tribal environment from being nibbled away, tribes need to improve their *negotiating* skills and gain control of these win-lose situations; learning how to negotiate successfully should become a tribal objective. Negotiating has become a vital ingredient that is needed to enhance the protection of overall tribal environments. It is possibly the best resolution to solving these intergovernmental disputes---it beats litigation.

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<sup>8</sup>WAPA, Power System Orientation, September 1987, p.6-7

In our continuing struggle to change our relationship with government agencies, we should never forget the incidents that happened long ago....It is to our advantage.....We Indians know best....The tactics that an opposing organization will use in order to achieve their goals.

Below are The Nine Commandments of Good Negotiating put together by the Cooper Management Institute.

1. Remember....EVERYTHING'S negotiable!
2. Never accept their first offer. Don't be easy to get.
3. Start high. Nibble at the end.
4. No free gifts! Trade every concession! Use the Big "IF.."
5. Start slowly. Be patient.
6. Krunch early and often.
7. Make smaller concessions especially at the end.
8. Keep looking for creative concessions to trade.
9. Leave the other side feeling it's done well.

**COUNCIL OF ENERGY RESOURCE TRIBES**

**NATIONAL COUNCIL OF STATE LEGISLATORS**

**1993 SUMMER INTERNSHIP PROGRAM**

**W.A. WHITE-TAIL FEATHER, INTERN**

- **PERSONAL STATEMENT**
- **RESUME**
- **REPORT**

---

## **W.A. White-Tail Feather**

---

I am of Pomo Indian and Middle Eastern descent. For the next year my internship is to continue at the Department of Energy in Washington D.C.. This year-long internship is in the Environmental Restoration and Waste Management Division, Section 4 of DOE. During the internship I am applying for graduate school for the Fall of 1994. After the internship is completed I hope to pursue a Ph.D. in comparative literature.

**W.A. White-Tail Feather  
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---

**Education**

Rocky Mountain College. Billings, MT. BA in English Literature

**Work Experience**

Present to  
August 1984

CERT intern with the Department of Energy, Washington D.C.

June 1993 to  
August 1993

Intern, National Conference of State Legislatures (NCSL)  
Intern, Council of Energy Resource Tribes (CERT) Tribal Intern.

Researched TRANSAX '92 and compiled a State Legislative Report.

Complex issue concerning emergency response preparedness.

Update 1992 State-Tribal legislation of Native American issues for the 1993 legislative sessions throughout the 50 states.

June 1992 to  
August 1992

Intern, National Conference of State Legislatures (NCSL)  
Intern, Council of Energy Resource Tribes (CERT) Tribal Intern

Researched Monitored Retrievable Storage and compiled a State Legislative Report. MRS is the facility for the storage of nuclear waste.

Researched 1992 State-Tribal legislation of Native American issues. Amalgamated dead and enacted legislation into a State Legislative Report.

**References** Available upon request.

**COUNCIL OF ENERGY RESOURCES TRIBES**

**1993 SUMMER INTERNSHIP REPORT**

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## **Emergency Response for Radioactive Waste Transportation Incidents (Review Draft)**

### **Background**

TRANSAX '92 was a transportation accident exercise held in September 1992 for Waste Isolation Pilot Plant (WIPP) shipments. This exercise was a catalyst for the reservation and state personnel to organize a cohesive emergency response team capable of functioning as a coordinated unit for the protection of the citizens and the environment. The Department of Energy National Security and Military Applications of Nuclear Energy Act of 1980, required the Secretary of Energy to construct the Waste Isolation Pilot Plant in southeast New Mexico. WIPP is an underground disposal facility, for research and development for the safe storage and retrieval of radioactive transuranic (TRU) wastes. WIPP is carved out of the Permian Basin salt near Carlsbad, New Mexico. The majority of radioactive wastes are to be shipped from the Idaho National Engineering Laboratory (INEL) in southeast Idaho with smaller amounts being transported from sites throughout the United States. Transuranic waste is created during production of nuclear weapons.

### **Idaho National Engineering Laboratory**

INEL is located on 890 square miles in the southeastern part of Idaho which contains nine development and research facilities. The current activities of the center include the management of transuranic contaminated solid and low-level radioactive waste resulting from research and national defense programs, research of shallow land burial technology, waste processing and retrieval technology, as well as the temporary storage of TRU waste destined for permanent storage in a federal repository.

Several communities in western states voiced concerns about the transportation of TRU waste to the WIPP facility. The Department of Energy has attempted to respond to these concerns with various initiatives designed to educate and mollify fears of citizens living along the INEL to WIPP shipping corridor about the safety of TRU waste shipments, these include an 8 hour mitigation course which trains those who are to evaluate the effects of a TRU transportation accident on the environment and humans, a twenty-two hour Command and Control Course which trains individuals about the contents of a TRU WIPP shipment, the human and environmental impact as well as the roles of the first responders, A third course is offered in basic knowledge of WIPP, waste transportation shipments, radiological hazards, potential impacts, and the effective performance of emergency response tasks as well as the incident

command system called the First Responders Course. TRANSAX is also one of these programs. This initiative tests the WIPP emergency response component. When WIPP is operational, 25 states will experience waste shipments and the consequent need for coordinated and effective emergency response.

### **TRANSAX 1992**

The DOE has made the WIPP shipping program the initial focus of its comprehensive, cooperative transportation accident exercise (TRANSAX) program series. The first of the series took place in 1990 at Colorado. The exercises are in anticipation of WIPP opening for tests in late 1993 or 1994. The 1992 exercise simulated a transportation emergency involving a transuranic waste shipment from INEL to WIPP. The exercise demonstrated, evaluated and improved the emergency response capability needed when responding to emergency transportation incidents. The Shoshone-Bannock Indian Tribe hosted the 1992 exercise on the Fort Hall Indian Reservation and was designated to be first responders to the accident. The participation of the Tribe was important to test the capability, coordination and proficiency of the participating Tribal, state, local and DOE emergency preparedness systems to respond to a transportation accident involving a WIPP waste shipment. The focus was be on integration of effort and cooperation among different emergency response organizations.

### **TRU Waste**

There are two types of TRU waste, contact handled (CH-TRU) and remote handled (RH-TRU). The CH-TRU waste emits of alpha radiation which can be stopped by a sheet of paper or the skin. Ninety-seven percent of the waste scheduled for the WIPP facility will be CH-TRU waste.

Much of the waste are by-products resulting from the design, development, testing and fabrication of nuclear weapons for national defense consists of everyday items used by the workers such as rubber gloves, clocks, pens, cloth lab coats, plastic bags, laboratory glass, rags, and shoe covers. These wastes do pose significant health hazards because they are water-soluble and contaminate a myriad of objects. Most of the radiation is no more radioactive than many low level wastes; however, the lengthy duration or half-life of the waste puts it into a special handling category. For example, half of the plutonium in plutonium-239 made and used today will still be left 24,000 years from now. The Department of Energy is currently responsible for approximately 60,000 cubic meters of currently stored and recently created TRU waste.

## **TRUPACT-II**

Contact handled TRU waste is compacted and stored in 55 gallon drums. A transuranic packaging transporter (TRUPACT-II) is used to ship the CH-TRU waste to the WIPP facility. Each TRUPACT-II container can hold up to fourteen 55 gallon drums. The Nuclear Regulatory Commission (NRC) certifies each container and inspects containers for compliance with all applicable federal regulations.

The TRUPACT-II is a cylinder 10 feet in height and 8 feet in diameter of two stainless steel shells separated from a third outer stainless steel skin by a thick polyurethane foam cushion; each stainless steel shell is a quarter inch thick. The TRUPACT-II's are to be carried on a flat-bed trailer with no more than three TRUPACT-II's per flat-bed. The payload will be 21,000 pounds for each transport. Until the Waste Isolation Pilot Plant is operational the TRU waste is temporarily being stored at the DOE weapons complex.

## **TRANSCOM**

The shipments from locations throughout the United States to the WIPP facility are monitored by a satellite tracking and two-way digital communications system. Two-way communication is accomplished using telecommunications satellites linking the vehicle and control center. The Transcom Control Center (TCC) located in Oak Ridge, Tennessee is upgrading a computer network and data base that will provide easy access to shipment information to DOE, state, and Tribal government officials.

## **Highway Route Selection**

The present route for the transportation of TRU waste from INEL to WIPP is U.S. Highway 285 in New Mexico, Interstate 25 in Colorado, Interstate 80 in Wyoming, and Interstate 15 in Idaho. Due to the real and perceived risk of transporting radioactive materials and after incidents like the torpedo spill in Denver's infamous "Mousetrap" some local government entities began banning or limiting the movements of radioactive materials through their jurisdictions. The United States Department of Transportation published a final rule on the issue of routing, known as HM-164. Essentially this rule states that the movement of radioactive materials be routed on the federal Interstate Highway System for maximum safety. Alternate routes can be designated by states after conducting a routing safety analysis. There are presently over two million shipments of radioactive materials and radioactive wastes that are annually transported by

private and public companies in the U.S.; approximately eighty percent of the shipments involve items with low radioactive levels, largely from pharmaceutical and medical sources.

One factor in using the Fort Hall reservation as the site for TRANSAX '92 may have been an incident on the Fort Hall reservation in October of 1990. The Shoshone-Bannock Tribes stopped, issued a citation to and returned a semi-tractor trailer carrying spent nuclear fuel from the Ft. St. Vrain nuclear power plant in Colorado destined for storage at INEL. A ruling by the United States district judge resolved the issue by stating that the Tribe does have jurisdiction over the transport of hazardous and radioactive materials through the reservation. The Tribes asked that the shipments be halted until the DOE provided money to implement an emergency response plan on the reservation, personnel to respond to a radioactive spill and money to purchase monitoring equipment. The Tribe also asked for pre-notification before a shipment comes through the reservation. If an accident happens on the reservation, it is the responsibility of the Tribe to respond and to notify the state emergency response officials. This scenario is precisely what TRANSAX '92 tested.

### **Cultural Awareness Day**

To facilitate mutual understanding between state, city, county, Tribal officials and personnel, the DOE sponsored a Tribal Perspectives Workshop on May 21, 1992, prior to TRANSAX. Concepts of federal Indian law and policy were presented by Jeanette Wolfly, attorney for the Shoshone-Bannock Tribes, which covered topics such as treaty rights and jurisdiction. James Osborne, Vice Chairman of the Shoshone-Bannock Tribes presented Tribal perspectives, specifically the sacredness of the land. The chief prosecutor for the Tribes, Diana Yupe, presented views on the protection of Tribal resources and consultation. Members of the Tribal Council spoke as well. In addition, a briefing on legal aspects and history of nuclear waste issues was shared, as well as views from an Indian archaeologist and anthropologist. Dennis Green, the Emergency Planning Coordinator from the DOE's field office in Idaho, helped plan Cultural Awareness Day and said it was very effective in addressing cultural differences. Wilson C. Moore, Community Response Coordinator, Shoshone-Bannock Tribes, said the event was well attended and an integral part in the process of cooperation between local, state and Shoshone-Bannock governments.

### **Pre-Exercise**

The planning of the program was integral to its eventual success. The Exercise Planning Committee began meeting in December of 1991. The committee and the program participants

engaged in analysis, extensive planning sessions, workshops, table-top exercises, functional drills and a preliminary full scale exercise. The drills were the best tool in streamlining and clarifying the duties of the participants. One addition from TRANSAX '90 was a medical scenario.

### **TRANSAX '92 Scenario**

A TRUPACT-II transporter was forced from its designated route on Interstate 5 to Exit 89 by a speeding vehicle. As the semi-tractor trailer traveled the ramp, a van collided with the semi. Five of the seven occupants were ejected from the van. A fire started when the van landed on the side of the road and ruptured a natural gas line.

The TRUPACT-II transporter bounced over uneven ground, struck a power pole, and ruptured its left fuel tank. Container #2 landed upright on the median with a fallen power line across it. Container #3 landed on its side sustaining damage to its outer skin. Container #1 remained on the flatbed seemingly undamaged. The drivers notified the WIPP central monitoring room using TRANSCOM and evacuated due to the fire and leaking fuel and asked the central monitoring room to make the remainder of the required notifications.

### **Participants**

The on-scene response included more than 200 emergency personnel from differing organizations: the Fort Hall Police and Fire departments and Quick Response Unit, Bannock Life Flight Ambulance, Bingham County and State Bureau Disaster Services, State HAZMAT Response Team, Idaho Division of Environmental quality, DOE-ID Radiological Assistance Team, TRUPACT-II Accident Response Team (TART), Dawn Enterprises (the trucking company carrying the TRUPACT-IIs), Idaho Power Company, Bingham County Sheriff, Blackfoot Fire and Ambulance, Idaho State Police District V, Idaho Transportation Department, State INEL Oversight Office and Intermountain Gas Company.

### **Response Problems**

As the event unfolded a few errors were made. Early on, the Fort Hall dispatch did not receive quick and formal notification of the accident; this stemmed from inadequate knowledge of notification requirements. There was also difficulty in reaching Fort Hall dispatch. These combined factors inhibited the dispatch of emergency personnel to the scene in a timely fashion. The major barrier to overcome during the exercise was communication. There were not enough shared channels and some agencies did not have access to enough frequencies to establish all

communication links. Inadequate coordination and misallocation of available communication channels also contributed. A misidentification of a hazardous material also resulted from imprecise communication. Some legitimate emergency response personnel lacked proper identification and were delayed in gaining access onto the scene. Confusion regarding the DOE field office responsible for keeping the press at bay and engine trouble with the helicopter ambulance were minor problems. The final exercise was viewed as dissatisfying because jurisdictional units which had not been trained during the preliminary exercises and planning process were utilized; however, there were many accomplishments despite the initial lack of communication.

### **On-Scene**

The Fort Hall Police Department's patrol captain was the incident commander and established a command structure with the Idaho State Police, District V commander. The drivers of the flatbed truck and the accident victims from the van were dispersed to the Bannock Regional Medical Center, Bingham Memorial Hospital, and Pocatello Regional Medical Center where they were treated for potential radioactive contamination and injuries resulting from the accident. The Idaho Power Company and the Intermountain Gas Company dispatched personnel to examine damaged power lines and a gas pipeline casing vent. The TRUPACT-II accident response team was dispatched by air from New Mexico and arrived within ten hours and recovered the two downed TRUPACT-II containers. The entire exercise took approximately ten hours to complete.

### **Achievements**

As shown by the exercise, the Shoshone-Bannock Tribes have acquired and demonstrated a first response capability, and eleven emergency medical personnel were trained and achieved Emergency Medical Technician status. Bingham Memorial Hospital received radiological training and gained hands-on experience during TRANSAX '92. Bannock Regional Medical Center and Pocatello Regional Medical Center applied and tested their skills in the treatment of radiologically contaminated patients. The most substantive facet of the exercise is that the Tribes have a working relationship with other jurisdictional units and are able to use the knowledge of other personnel and services that can be called upon in a hazardous materials incident. The TRUPACT-II accident response team was field tested. Upon inspection of the road by the ISP WIPP officers, the road was found to have road worthiness deficiencies. Some media personnel raised the question of drugs as the cause of the incident. The issue of immediate drug testing after an accident is being studied by the DOE.

## Conclusion

Participating departments were encouraged to undertake internal evaluations and follow-up of performances. Joint DOE-INEL/Tribal/State/Local emergency preparedness meetings, conducted quarterly in Idaho may be used to monitor completion of corrective actions. According to Steve Oberg of the INEL Oversight Program, this exercise helped the differing agencies to coordinate and dispel misconceptions they had about each others' responsibilities, and clarified each department's role in case of such an emergency. It forced Idaho to rethink its plans for such an emergency and the DOE greatly benefits from the exercises. Overall, the project was a success.

Wilson Moore of the Shoshone-Bannock Tribes said the entire process has created a better working relationship with the Idaho State Police and the HAZMAT Emergency Response Team. He said efforts such as inviting people from differing jurisdictions and outside observers to sponsored programs, workshops and classes is highly beneficial to the cooperation process. "I think we did an outstanding job...we would never have been able to respond to that accident a year ago." The exercise has motivated personnel from all teams and units to undergo the necessary training and to work as a single unit in the wake of a radioactive waste transportation incident.

Regardless of the position taken on the subject of nuclear energy, the consequences of half a century of nuclear technology must be dealt with. If the U.S. were to reverse its policy on nuclear energy and began to decommission and decontaminate the present reactors and weapons facilities, the transportation of nuclear waste would still be a situation to be dealt with by states and Tribes. The TRANSAX '92 exercise is a prime example of the cooperation that states and Tribes can exhibit for the health, safety and welfare of this nation.

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**State-Tribal Legislation 1993: An Update  
(Review Draft)**

In 1993 approximately 238 bills, resolutions and memorials have been introduced into the state legislatures concerning state-Tribal issues. The National Conference of State Legislatures has tracked state-Tribal relations in the 1991, 1992 and 1993 sessions. The major topics in the past two sessions and the current session are: authority for intergovernmental agreements, burial protection, child welfare, cultural and historical preservation, designation of Native American days or weeks, economic development, education, federal recognition of certain Indian Tribes, gambling, jurisdiction, natural resources allocation and protection of hunting, fishing, timber, and water rights, religious freedom, sovereignty, taxation, Tribal courts and waste disposal. These issues are the subject of a book being compiled by the National Conferences of State Legislatures' State-Tribal Relations Task Force.

The reasons for the trend of increasing bills and resolutions being considered by the state legislatures is fourfold. First, there are increasing numbers of American Indians, Native Alaskans and Hawaiians being elected to the state legislatures. Second, Indian Tribes have been given the authority to implement federal regulatory programs similar to those of states causing the reevaluation of the relationship between Tribal programs to state programs. Third, many state policy makers are becoming more aware of the importance of Tribal issues within the states. Lastly, for many years Indian Tribes and states have settled issues in the courts resulting in a costly and time-consuming resolution.

A definitive statement on state-Tribal relations is not found in any state or Tribal constitution, nor in the U.S. Constitution. Frank Pommersheim, professor of law at the University of South Dakota draws the conclusion that this lack of a statement yields the potential for "creative free-play and mutual governmental respect and advancement" between states and Tribes; however, this lack of a definitive statement has often led to "acrimonious enmity" between the Tribes and the states. The majority of this enmity has been settled in the courts.

Usually these cases are decided by the U.S. Supreme Court. The bulk of the U.S. Supreme Court litigation concerning Indian Law has dealt with issues between states and Tribes. Recently these decisions by the U.S. Supreme Court have been unfavorable to Indian Tribes. For Tribal governments the state political processes are alternatives to the judicial system for the resolution of conflicting state-Tribal interests.

Gambling was the principle issue discussed in Arizona, California, Idaho, Iowa, Kansas, Louisiana, Minnesota, Mississippi, Nebraska, Nevada, New Mexico, New York, Oklahoma and Oregon's sessions. Many states requested the U.S. Congress and President to review the Indian Gaming Regulatory Act as to its constitutionality. States also proposed authorizing the governor to negotiate and execute compacts. State-Tribal gaming compact were also ratified. Many states introduced legislation restricting the duration of these compacts.

Education garnered as much priority as gambling in Arizona, California, Colorado, Hawai'i, Michigan, Minnesota, Montana, Nevada, New Mexico, North Dakota, South Dakota, Washington and Wisconsin's legislatures. These measures included the implementation of American Indian history, language and culture into the curriculum, college scholarships and tuition issues.

Indian Affairs Offices and Commissions were renamed, created, received revisions of duties, or were considered as permanent committees of the state's Congress in the states of Florida, Idaho, Louisiana, Maryland, Mississippi, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, Tennessee, and Wyoming.

Natural resources protection and allocation was considered in the states of Hawai'i, Maine, Minnesota, New Mexico, New York, Oregon and Washington.

Protection and identification procedures for burial grounds and funerary objects received attention in the state legislatures of Alabama, California, Maryland, Minnesota, Nevada, New Mexico, New York, Oregon, Pennsylvania and Utah. Many states debated severity of penalties for infringement of the burial sites or for the sale of objects recovered from burial sites.

Taxing issues were considered in the states of Nevada, New Mexico, New York, North Dakota, Oregon and South Dakota. A bill in the Kansas legislature was defeated that ceded taxing jurisdiction over Indian Tribes. Montana considered special taxation of coal that was produced by an Indian Tribe.

The issue of sovereignty was considered in Alabama, Georgia, Hawai'i, Louisiana, New Mexico, New York, Rhode Island, South Carolina and Vermont. Education of the public and investigations into the sovereignty of Tribes was debated. An Alabama resolution clarifying, defining, and reaffirming its sovereign relationship with the Choctaw Indians was not passed. This resolution was previously defeated in the 1992 session.

Hawai'i with 72 and New Mexico with 43 bills and resolutions comprise the bulk of legislation to be introduced into a state legislature. The topics of each state are similar and cover most issues seen elsewhere in the 50 states concerning state-Tribal issues.

In the states of Maine, North Carolina, New Mexico and South Dakota there were American Indians newly elected to legislatures. Presently 11 indigenous Hawaiians serve in the Hawaiian legislature.

As Pommersheim has noted, "Tribal-state relations have foundered conceptually, politically and economically from the earliest days of the republic." But the manifold problems that exist are not intractable. An increasingly important arena for the reconciliation of state-Tribal issues are the legislatures of the states. A state-by-state analysis of bills relating to American Indian issues follows, duplicate bills are in parenthesis.

### **Alabama**

The three bills introduced into the Alabama legislature concerning American Indian issues did not pass. The first reaffirmed the sovereign relationship between the state of Alabama and the Choctaw Indians. The second created the Alabama Indian Housing Authority and the third increased the penalty for desecration of Indian burial sites to a Class C felony.

### **Alaska**

Two bills were held over for the next session in the Senate Judiciary Committee. The first bill allowed the reinstatement of involuntarily dissolved Native Corporations. The Second related to state and local taxation as affected by the Alaskan Native Corporations Settlement Act. Senate Bill 20, a duplicate of the first bill was held over for the next session in the Senate Committee on Regional Community Affairs. One resolution and Committee Substitute Bill were passed.

CSHB 217-Gives minors in the custody of the state that are members of Native corporation eligibility to receive dividends or other distributions resulting from ownership or stock in a Native Corporation. Signed by the governor on July 6, 1993..

HJR 25-Requests the United states Coast Guard not to require alterations of a vessel or equipment of a vessel used in the Aleutian trade which would not disrupt essential freight service to the Aleutian Islands chain. Signed by governor on March 10, 1993.

## **Arizona**

Seven of nine bills failed to pass as well as one House memorial and House concurrent resolution. In the Appropriations Committee, two pieces of legislation died. The first clarified the responsibilities of the Office of Indian affairs, and the second would have funded Indian programs through the Department of Economic Security. A House Memorial asking the United States government to reopen the Navajo-Hopi land dispute negotiations died in the Judiciary Committee. The last two House bills both dealt with the Arizona Racing Department and both died in Committee. The first allowed for the nomination of one American Indian to the Arizona Racing Commission, and the second authorized the Arizona Department of Racing to oversee the implementation of compacts for Indian lands. In the House Committee on Commerce a bill limiting the governors authority to execute Tribal-state gambling died as well as a resolution requesting clarification of the Indian Gaming regulatory Act. A bill setting a sunset date for Tribal-state compacts did not pass the Senate.

Two Senate Bills, one House Bill and a House Resolution failed to pass in the special legislative session. HB 2002 would have allowed the governor to negotiate and execute Tribal-state gaming compacts. A House Concurrent resolution requested the U.S. Congress to revise and clarify the Indian Gaming Regulatory Act. Senate Bill 1001 was a duplicate of HB 2002 and SB 1005 which established a duration limit and voter approval renewal clause for state-Tribal gaming compacts. The following two pieces of legislation were enacted.

HB 2016-Authorizes the superintendent of public instruction to enter into compacts with adjacent states containing federally recognized Indian Tribes to allow access to Arizona public schools by students on the same Indian reservation yet residing in a different state. Signed by the governor on March 3, 1993.

SB 1080-Allows Indian reservation "community colleges" to be exempt from the State Community College Board's jurisdiction. Signed by the governor on April 20, 1993.

## **California**

The California Legislature adjourns in late August, One bill failed to pass authorizing the repatriation of Native American remains, the following pieces are still being considered.

AB 1051-Reactivates inoperative Indian education centers and establishes a new sunset date of January 1, 1997. Sent to the governor on July 14, 1993.

AJR 40-Asks the Congress of the United States to amend the Indian Gaming Regulatory Act to clarify that Tribes are under the same restrictions as other state citizen operations, as well as to define "good faith". Referred to Assembly Committee on Governmental Organization.

AJR 41-Requests the U.S. President and Congress to provide at least 2 federally owned sites for the burial and reburial of Native Americans. On second reading in the Senate Committee on Natural Resources and Wildlife.

### **Colorado**

One bill and one resolution in the legislature dealt with education. House Joint Resolution 1032 encouraged the instruction of Native American language and culture in the public education system, it passed the House and failed in the Senate. SB 93 was postponed indefinitely in the Senate. It would have required the study of Native American history, culture and contributions to the civil government be added to the public school curriculum.

### **Connecticut**

House Bill 7219 withholds funds from federally recognized Indian Tribes unless the Tribe establishes and adopts an Employment Rights Code for member and non-member employees of the Tribe and allows the governor to negotiate rights for employees of commercial enterprises that are subject to Tribal jurisdiction. Signed by the governor on July 1, 1993.

### **Florida**

A bill creating the Indian Gaming Commission to be responsible for the negotiations between states and Tribes died. The following bill and resolution were passed.

HR 2385-Commemorates September 24, 1993 as Native American Day. Passed the House on March 31, 1993. (HR 1909)

SB 34-Renames the Northwest Florida Creek Indian Council as the Creek Indian Council, revises its membership and sets requirements for meetings and terms. Signed by the governor on April 1, 1993. (HB 1261).

## **Georgia**

The one bill in the Georgia Legislature is being held over for the 1994 session. It officially recognizes the Georgia Tribe of Eastern Cherokee, the Lower Muskogee Creek Tribe, and the Cherokee of Georgia Inter-Tribal Council as legitimate American Indian Tribes of Georgia.

## **Hawai'i**

In the 1993 legislature, 72 bills and resolutions were introduced concerning native Hawaiian issues. Of these nine, dealt with education, 13 dealt with economic development, four with health, four with preservation of cultural sites, 24 with sovereignty, and nine with natural resources. The following are those signed by the governor, or have passed either the Senate, House or both.

HB 1178-Authorizes the issuance of special revenue bonds to assist Native Hawaiian-owned industrial enterprises. Signed by the governor on June 18, 1993.

HB 1955-Amends the historic preservation law by adopting general rules of use for significant cultural, historic, and prehistoric sites and monuments. Signed by the governor on June 22, 1993.

HB 2010-Creates processes for individuals to resolve claims under the Hawaiian Home Lands Trust for damages resulting from a breach of trust by an employee of the state in the management and disposition of trust resources. Signed by the governor on July 1, 1993.

HB 2014-Authorizes the state to pursue claims against the federal government for the improper use, transfers or takings of Hawaiian home lands by the federal government and appropriates money to provide additional means to rectify these events. Signed by the governor on July 1, 1993.

HB 2015-Establishes a commission to manage the Kaho'olawe Island Reserve and preserve its cultural and historic resources for the people of Hawaii. Signed by the governor on July 1, 1993.

HB 2019-Relates to the Hawaiian Homes Commission Act. Signed by the governor on May 21, 1993.

HR 24-Requests the U.S. President and Congress to honor and fulfill the federal trust obligation to Native Hawaiians. Adopted April 19, 1993.

HR 27-Supports discussion and debate that will enable all citizens of the state of Hawaii to understand sovereignty, as well as urging the U.S. Congress to provide funds for this program through the Administration for Native Americans. Adopted April 16, 1993.

HR 58-Requests the U.S. Congress to review the wrongs done to the Hawaiian people and to develop procedures for returning the Hawaiian people to the Hawaiian lands. Adopted April 16, 1993.

HR 159-Requests a report on progress being made to fulfill the mandate of accessing water resources for the settlement of Hawaiian Homestead lands. Adopted April 19, 1993.

HR 161-Requests a report on progress being made to fulfill the mandate of assessing water resources for the settlement of Hawaiian Homestead Lands. Adopted April 30, 1993.

HR 175-Requests the U.S. president and Congress to issue an apology to Native Hawaiians for the overthrow of the Kingdom of Hawaii by the United States of America. Adopted April 14, 1993.

HR 210-Reaffirms support for the restoration of human, civil, property, and sovereign rights of Hawaii's indigenous people. Adopted April 19, 1993.

HR 270-Requests the U.S. President and Congress to formally recognize Native Hawaiians as Native Americans. Adopted April 19, 1993.

HR 273-Recognizes 1993 as the year of the worlds indigenous people. Adopted April 19, 1993.

HCR 179-Requests the U.S. President and Congress to issue an apology to Native Hawaiians for the overthrow of the kingdom of Hawaii by the United States of America. Adopted April 30, 1993.

HCR 213-Reaffirms support for the restoration of human, civil, property, and sovereign rights of Hawaii's indigenous people. April 30, 1993 passed the Senate.

HCR 272-Requests the U.S. President and Congress to formally recognize Native Hawaiians as Native Americans. Passed the Senate on April 30, 1993, and sent to the House for Concurrence.

HCR 275-Recognizes 1993 as the year of the worlds indigenous people. Adopted April 30, 1993.

SB 1027-Establishes a 7 member Salary Commission to determine salaries for the board of trustees of the Office of Hawaiian Affairs. Signed by the governor on July 1, 1993.

SB 1028-Provides for referendum to investigate whether or not to establish a Hawaiian Sovereignty Commission. Signed by the governor on July 1, 1993.

SR 18-Supports efforts to achieve sovereignty for Native Hawaiians and believes that the process of gaining sovereignty is a matter of federal jurisdiction and an obligation premised on the status of Native Hawaiians as Native American people. Adopted April 19, 1993.

SR 39-Supports appropriate incentives to enable young persons of Hawaii or part Hawaiian ancestry to achieve the education required for a career in public schools. Adopted April 19, 1993.

SR 46-Requests the feasibility of establishing a Hawaiian Cultural Center Complex. Adopted April 19, 1993.

SR 55-Urges the University of Hawai'i Board of Regents and Administration to establish a Hawaiian Immersion lab school at the University of Hawai'i. Adopted April 19, 1993.

SR 118-Reaffirms support for the restoration of human, civil, property and sovereign rights of Hawaii's indigenous people. Adopted April 19, 1993.

SR 187-Requests state assistance in the symbolic reinforcement of cordial relations between Great Britain and Hawaii. Adopted April 19, 1993.

SR 191-Requests the Department of Land and Natural Resources to affect the transfer of land surrounding Mo'okini Heiau to ensure its preservation. Adopted April 19, 1993.

SR 222-Requests the East-West Center and the Office of International Relations to investigate establishing project Ma'alo to promote the protection, registration, and inventory of held artifacts of the Pacific. Adopted April 19, 1993.

## **Idaho**

Three bills died in the State Affairs Committee. Two were slated to create a commission to review American Indian issues. The third required that any negotiated compact between the state and Tribes be ratified by the legislature. A bill regulating cigarette sales pursuant to a cooperative agreement between the state and Tribes died in the Senate Revenue and Tax Committee. Two bills were enacted.

SB 1196-Designates the governor to represent the state of Idaho in ongoing negotiations required between the state and federally recognized Indian Tribes. The negotiated compact will only allow those forms of gambling authorized by state law to be conducted by Indian Tribes. Signed by the governor on January 1, 1993.

SB 1284-Asks that an 11th amendment defense not be used by the state in order to resolve types of disputes over limits upon Class III gaming. (A ruling is being sought from the U.S. District Court for the District of Idaho by the Coeur d'Alene, Nez Perce, and Kootenai Tribes. The state is also asking if the Indian Gaming Regulatory Act violates the 10th amendment of the U.S. Constitution). Signed by the governor on January 1, 1993.

## **Iowa**

One piece of legislation died in the House Human Resources Committee. It would have created a state-wide commission to review the delivery and quality of health service to American Indians in the state of Iowa. The second piece is being considered by the governor:

HB 484-Authorizes access to criminal histories of certain Tribal gaming officials. Signed by the governor on April 27, 1993.

## **Kansas**

Two of the three bills introduced this session are being held over for the 1994 session. One deals with the relinquishment of taxing jurisdiction over Indian Tribes, and the second outlines procedures for negotiating, entering, and implementing state-Tribal gaming compacts. The third bill was ratified.

HB 2023-Provides procedures for negotiating and entering state-Tribal gaming compacts through the governor or the governor's designated representative as well as creating a joint committee on gaming compacts. Signed by the governor March 3, 1993.

## **Louisiana**

Four of the two bills introduced did not pass. The first concerned the appointment of an Indian Gaming Commission to negotiate gaming compacts with Tribes; it died in the House Criminal Justice Committee. The second died in the House Judiciary Committee; it allowed Tribal police to be designated peace officers following training and certification. One resolution and two bills were passed and signed.

HB 1217-Creates the Governor's Office of Indian Affairs and establishes its duties and guidelines. This commission is to serve as the negotiating agent between the state and Tribes. Signed by the governor on June 2, 1993.

SB 496-Gives the governor authority to appoint an Indian Gaming Commission to negotiate gaming compacts on behalf of the state with Indian Tribes and to enter into and sign state-Tribal gaming compacts. This act also stipulates that no compact shall be binding upon the state for more than seven years. Signed by the governor on June 22, 1993.

SCR 16-Formally recognizes the Caddo Adais Indian Tribe and requests the U.S. Congress and the Bureau of Indian Affairs to formally recognize the Caddo Adais Indian Tribe. Signed by the President of the Senate and Speaker of the House on June 1, 1993.

## **Maine**

A Senate Bill allowing qualified individuals including members of Maine Indian Tribes to be eligible for complimentary antlerless deer permits died in the Joint Committee on Fisheries and Wildlife. Two house Bills were passed.

HB 584-Grants to the Passamaquoddy Tribe trademark protection for the name "Passamaquoddy". Signed by the governor on June 2, 1993 and is Public Law 210.

HB 1053-Makes the violation of protection orders issued by the Tribal court of the Passamaquoddy and Penobscot Tribes a Class D criminal offense in the state court system. Signed by the governor on July 13, 1993 and is Public Law 469.

## **Maryland**

A House Bill allowing descendants, heirs, or appointed representatives access to American Indian burial sites with the consent of the land owner received an unfavorable report from the Environmental Committee. The following bill was enacted.

HB 343-Allows the Commission on Indian Affairs to accept designated gifts and grants and to maintain any unused moneys to be held in a special fund and to be carried over into the next fiscal year. Signed by the governor on April 26, 1993.

## **Massachusetts**

The Massachusetts Legislature meets throughout the year and these bills are being considered.

HB 402-Declares the third Friday in September as Native American Day. Is on Third reading in the House.

HB 1533-Allows teachers who have worked in VISTA or the Indian Bureau to buy that time into the teacher's retirement system. Is in the Committee on Public Service.

## **Michigan**

The Michigan House of Representatives recently passed a bill providing tuition waivers for North American Indians in public state or junior community colleges, public colleges, or public universities. It presently is in the Senate Education Committee.

HB 4156-Allows law enforcement officers of a Michigan Indian Tribe to be certified as a police officer under the Michigan Law Enforcement Officers Training Council Act of 1965. Is in the Senate Committee on Judiciary.

## **Minnesota**

Minnesota considered 21 measures in the 1993 session. Senate Bill and its two companions, SB 220 and HB 575) all failed to pass. These bills resolved claims by the Mille Lacs Band of Chippewa of natural resource rights under treaty. A resolution died in the Government Operations Committee, two related to gambling negotiations, the third related to the council on Indian Affairs. In the Health and Human Services Committee a bill died reimbursing administrative costs for services to the Red Lake Indian Reservation. The following were ratified.

HB 264- Authorizes Tribal Indian housing demonstrations of innovative methods for the housing of urban Indians. Signed by the governor on April 19, 1993.

HB 1146-Creates a special definition of pupil units, early retirement levies and special transportation aid to a public school when pupils attend a non-public school on a reservation in the same district as a public school. Incorporated into the Omnibus K-12 Education and Finance Bill, Ch. 224.

HB 1604-Establishes procedures for accepting applications by the board of public defense to be funded by an American Indian nonprofit law corporation for representatives involved in a case covered by the Indian Child Welfare Act. Is in the House Committee on Judiciary. Incorporated into the Omnibus Judiciary and Appropriations bill, CH 146.

SB 1315-Provides for a civil action against a person violating Indian burial grounds. Passed, and is Chapter 288. Signed by the governor on May 19, 1993.

SB 97-Allows an American Indian adult to furnish tobacco products to an American Indian minor in public schools if it is used as part of a traditional Indian spirituality ceremony. Passed the Senate and is in the House Committee on Judiciary. Incorporated into the Omnibus K-12 Education and Finance Bill, CH. 224.

## **Mississippi**

Two companion bills were introduced into the House and Senate. Both authorized the governor to negotiate and execute on behalf of the state, any Tribal-state gaming compact authorized under federal law. Both died in the House and Senate Ways and Means Committees respectively.

## **Montana**

A Senate bill declaring the fourth Friday in September as American Heritage Day was killed on second reading. The House Committee on Education tabled a bill appropriating money to help the recruitment and retention of American Indians in higher education. Three other bills died in committee as well. The first gave hiring preferences to Indians for state projects on the reservation. The second prevented dual taxation of alcoholic beverages on the reservation, and the last granted greater interpretive latitude to the Gambling Control Division of the Department of Justice for the Indian Gaming Regulatory Act. House Bill 767 was indefinitely postponed on second reading in the House and would have exempted certain royalties received by an Indian Tribe from taxation. A bill appropriating money for Tribally controlled colleges was tabled in the Special Joint Subcommittee on Education. Four bills were enacted.

HB 92-Clarifies the State-Tribal Cooperative Agreements Act authorizing the state to assess, collect, or refund a tax, license, or permit fee, and requires a public agency to hold public forums prior to entering into an agreement on taxation, gambling, fish and game, or environmental regulations with a Tribal government. Signed by the governor on May 10, 1993.

HB 283-Prevents dual taxation on cigarettes sold on Indian reservations, and requires the Montana Department of Revenue to share revenue with Tribes determined by a negotiated population formula, as well as penalties for the selling of unstamped cigarettes. Signed by the governor on April 16, 1993.

HB 693-Increases from four to eight the membership of the Committee on Indian Affairs. Signed by the governor on May 11, 1993.

SB 368-Cedes to the confederated Salish and Kootenai Tribes criminal misdemeanor jurisdiction on the Flathead reservation from the State of Montana. Signed by the governor on April 24, 1993 and is chapter 542.

### **Nebraska**

Two resolutions died in the Legislative Committee on Executive Board. the first requested the examination of the Indian gaming regulatory Act for types of gaming subject to negotiation, legal parameters and sovereign rights of Indian Tribes, the second requested the Nebraska Commission of Indian Affairs to assess methods of effective advocacy for minorities and women in Nebraska. Two bills were passed and signed.

LB 231-Authorizes the governor or representative to negotiate with Tribes in good faith for the purpose of entering into Tribal-state compacts regarding Class III gambling. Signed by governor on June 10, 1993.

LB 725-Allows Tribal governments in distressed areas with high unemployment to apply for designation as an enterprise zone which will entail economic development plans and new action encouraging private investment in the area. Signed by the governor June 8, 1993.

### **New Jersey**

The New Jersey Legislature meets throughout the year. A bill establishing the New Jersey Commission on Indian Affairs and the designation of an American Indian day are being considered.

### **Nevada**

Two bills died in the Ways and Means Committee. The first dealt with the special educational needs of American Indians, the second would have appropriated money for the building of a school on an Indian reservation. A bill to exempt Indian reservations from certain state gasoline taxes was indefinitely postponed in the Assembly Committee on Taxation, as well as a bill

allowing Indian reservations to impose an excise tax on liquor. A resolution asking for the Indian Gaming regulatory Act to be Amended or for a moratorium to be declared on new compacts died in the Senate Judiciary Committee. Four pieces of legislation were enacted.

AB 618-Relinquishes state claims to sections of the beds and banks of the Truckee River on the Pyramid Lake Indian reservation. Signed by the governor on July 9, 1993.

AB 653-Asks that the Department of Transportation to designate specific property to the United States for the use of the Walker River Paiute Tribe. Signed by the governor on July 12, 1993.

SB 408-Alters the penalties of the protection of Indian burial sites. Signed by the governor on June 28, 1993.

SB 443-Allows for the addition of a representative of the Inter-Tribal Council of Nevada, Inc. to the Nevada State Board on Geographic Names. Signed by the governor on June 11, 1993.

## **New Mexico**

Forty-three pieces of legislation concerning American Indians were considered. Four House Bills were vetoed by the governor. The first Authorized the New Mexico Office of Indian affairs to negotiate and execute Tribal-state gaming compacts. The second related to the Commission on Indian Affairs. The third provided for wholesale liquor sales to certain Indian Tribes. The last would have allowed Tribal and Pueblo police officers to be designated as New Mexico peace officers by reducing law enforcement jurisdiction by the state of New Mexico. The following measures were passed and signed.

HB 164-Stipulates penalties for person(s) damaging cultural property. This is to be known as the Cultural Properties Protection Act, providing for restoration, preservation and stabilization of cultural properties. Signed by the governor on April 3, 1993.

HB 181-Authorizes all persons who are duly commissioned officers of the sheriff's department of any New Mexico Indian Tribe or pueblo to be recognized and authorized to act as New Mexico peace officers. Signed by the governor on April 3, 1993.

HB 231-Includes Indian Tribal governments under the provisions of the Litter Control and Beautification Act. Signed by the governor on April 7, 1993.

HB 501-Appropriates funds for the University of New Mexico in Bernalillo County to its New Mexico Natural Heritage program. Signed by the governor on April 8, 1993.

HM 13-Encourages the continued and expanded use of Native American names and images by athletic teams. Signed by the Officials of the House on March 8, 1993.

HM 18-Recognizes the healing and spiritual benefits of the art of the "Sobada". Signed by the officials of the House and awarded as a certificate on February 5, 1993.

HM 20-Recognizes and supports the efforts of U. S. Congressman Bill Richardson to promote Native American sovereignty and self-sufficiency. Signed by the officials of the House and awarded as a certificate on February 15, 1993.

HM 26-Supports requests for federal funding for completion of the Navajo Indian Irrigation Project by the Navajo Agricultural products and industry. Passed the House on March 6, 1993.

HM 55-Requests the death investigation services performed by the Navajo Nation be studied with special emphases on jurisdiction and financial issues. Passed the House on March 17, 1993.

HM 58-Requests that federal, state and local environment regulatory requirements be complied with by federal, state, Indian Tribal and local governments. Passed the House on March 17, 1993.

SB 61-Gives inmates of Native American descent in correctional facilities the same access to spiritual leaders, and religious items afforded to those of Judeo-Christian religions. Inmates will no longer be required to have hair cut if it conflicts with native religious beliefs. Signed by the governor on March 31, 1993.

SB 829-Requires notice of application for permitting of solid waste facilities to be sent to Indian Tribes and pueblos when boundary of reservation on pueblo is within 10 miles of the proposed site. Signed by the governor March 2, 1993.

SJM 4-Requests the president of the United States to appoint Native Americans to federal judgeships. Signed by the officials of the Senate on March 13, 1993.

SJM 19-Requests the U.S. Congress the completely fund the Indian Child Protection and Family Violence Protection Act. Passed the House on March 19, 1993.

SM 12-Requests the governor to appoint more Native Americans to state judgeships. Signed by the officials of the Senate on February 7, 1993.

SM 18-Requests the governor to appoint Native Americans to University Boards of Regents. Passed the Senate on March 11, 1993.

SM 20-Supports the Navajo agriculture products industry and requests federal funding for completion of the Navajo Indian Irrigation Project. Signed by the officials of the Senate on March 12, 1993.

SM 24-Requests that solid waste management programs on Indian lands be federally funded and that the New Mexico legislature fully support such processes. Passed the Senate on March 10, 1993.

SM 26-Requests the Rural Electrification Administration to provide assistance to the Navajo Utility Authority to give immediate attention to the rectification of isolated areas without electrical service necessary for basic human existence and minimum quality of life. Signed by the officials of the Senate on March 18, 1993.

SM 36-Requests the U.S. Congress to fund the conservation of soil and stop erosion of soil on Navajo Lands. Passed the Senate on March 10, 1993.

SM 37-Recognizes the importance of the Pinion-Juniper ecosystem and the pinion nuts as supplemental food and income to the traditional inhabitants of New Mexico. Passed the Senate on March 12, 1993.

SM 61-Requests a task force to study the delivery of Indian Children Services. Passed the Senate on March 19, 1993.

SM 73-Encourages enhanced interstate and international trade with Indian Tribes and pueblos. Passed the Senate on March 19, 1993.

SM 92-Requests a feasibility study of an arts and crafts cooperative for the Eastern Navajo Agency in McKinley County. Passed the Senate on March 19, 1993.

## **New York**

The legislature meets year round and these bills are being considered.

AB 2167-Authorizes trustees to allot Tribal lands to families for oversight of lands, firewood, timber cutting and to lease land for the benefit of the Tribe with the consent of three town justices. Is in the Assembly Government Operations Committee.

AB 4712-Establishes guidelines and authorization for the taxation of motor fuel and cigarettes sold to non-natives on Indian reservations. Is in the Assembly Committee on Ways and Means.

AB 5144-Designates the third Monday in June as Native American Day. Referred to Committee on Government Operations.

AB 6298-Asks the state to protect non-Indian land owners from Indian settlement claims by functioning as guarantor of the monetary value of the land and reimbursor of last resort for land owners who do not win settlements. Referred to Committee on Government Operations.

AB 6743-Allows enrolled members of an Indian Tribe or nation within the State to hunt, fish and trap off the reservation. In the Environmental Conservation Committee.

AB 6966-Strengthens the state's commitment to the protection of Native American Indian burial sites from deliberate or inadvertent disturbance and looting. In the Codes Committee.

AB 7755-Provides that a minimum rather than a maximum of 0.5 percent of federal funds received by the state to fund Indian Tribes. Is in the Assembly Committee on Social Services.

AB 8559-Provides for the licensing of gaming employees, registration of gaming service enterprises, investigation gaming enterprises and regulating gaming under a compact between an Indian nation or Tribe. Passed the Assembly and is in the Senate Committee on Rules. (SB 6089)

SB 3157-Designates the third Monday of June to be known as Native American Day. No action, Referred to the Judiciary Committee.

SB 3920-Authorizes the state to act as guarantor of last resort for property owners who have lost property due to successful claims by an Indian Tribe. Introduced to Senate Committee on Judiciary.

SB 5629-Provides for a reduced motor fuel exercise tax in certain regions facing competition from bordering states on Indian reservations. Is in the Senate Committee on Investment, Taxation and Government Operations.

SB 5942-Allows the state police to have jurisdiction within the gaming Casino and Adjacent grounds under the terms of a Tribal-state gaming compact and for the Oneida Tribe to reimburse the state for expenses incurred. Is in the Senate Committee on Rules and has been amended.

### **North Carolina**

Two bills were passed and signed. The first renames the State Indian Housing Authority to the Indian Housing Authority and was ratified on June 23, 1993. The second relates to the North Carolina Indian Cultural Center and was signed by the heads of the two chambers.

### **North Dakota**

Two bills failed to pass the House. One created a center for the study of American Indian Law, and the other provided financial assistance to Indian students attending Tribally controlled colleges. Two bills have been signed by the governor. A House Concurrent Resolution passed both the House and Senate but has not been prioritized. It requested a study of eligibility of the state to receive land from the Three Affiliated Tribes and the Standing Rock Sioux Tribe.

HB 1323-Directs the Department of Transportation to incorporate the number of motor vehicles registered under Tribal authority when calculating the distribution of the highway tax fund to each county. Signed by the governor on April 4, 1993.

SB 2007-Appropriates money to defray the expenses of the Indian Affairs Commission. Signed by the governor on April 28, 1993.

## **Ohio**

Newly introduced Senate Bill 189 blocks the use of public money for the Cleveland Indians' new Gateway Ballpark if they use Chief Wahoo as their symbol.

## **Oklahoma**

A bill for subsidized adoption of children under permanent control of the Department of Human Services, including those of Federal Indian Tribes didn't pass the Senate. A bill failed to pass that authorized the Oklahoma Legislature to regulate gaming machines used by Indian Tribes. A Senate Bill failed to pass that authorized the governor to negotiate and enter into cooperative agreements with Tribes. Another Senate Bill authorized the State Bureau of Investigation to monitor Indian gaming compacts died in Senate Committee. The following were ratified.

HB 1479-Allows federally recognized Tribes to inspect court records of juveniles of concern to the Tribe without a court order. Signed by the governor April 20, 1993.

HB 1595-Declares the Oklahoma State Bureau of Investigation to be the agency responsible for monitoring and oversight of approved Indian gaming compacts.

SB 42-Designates the drum as the Native American Musical Instrument in Oklahoma. Signed by the governor on June 3, 1993.

SB 113-Creates the Oklahoma Indian Affairs Commission, the purpose of which is to promote unity, purpose and understanding among Indian and non-Indian people of Oklahoma. Signed by the governor on June 7, 1993.

SB 576-Appropriates money to the Indian Affairs Commission for operating costs. Signed by the governor on May 27, 1993.

SCR 13-Supports the Teen-age Suicide Awareness Project as coordinated by the Indian Capital Vo-Tech Practical Nursing Chapter of the Health Occupations Students of America in Muskogee. Passed the Senate and House on March 4, 1993.

## **Oregon**

Four House Bills and two Senate Bills will probably see no further action in their respective Committees. HB 5038 appropriates money for biennial expenses of the Commission on Indian Services and is in the Appropriations Committee. In the Sub-committee on Transportation is a bill requiring the smooth transfer of a city cemetery property to a Tribal council. In the house General Government Committee are two bills, the first creates policy regarding Native American archaeological sites; the second allows for special assessment of taxes of property containing American Indian artifacts. In the Senate Judiciary Committee are two bills dealing with American Indian burial rights as well. The first provides that no person without permit and Tribal approval may remove Tribal property. The second creates penalties for disturbance of Native Indian burial sites. Three pieces of legislation have been enacted.

HB 2109-Defines procedures for conducting negotiations with any federally recognized Indian Tribe that may have a federal reserved water right claim in Oregon. Signed by the governor on April 1, 1993.

HB 3286-Increases limit on amount of salmon provided to Confederated Coos, Lower Umpqua and Siuslaw Tribes for ceremonial purposes. Referred to the Natural Resources Committee. Signed by the governor on July 28, 1993.

HB 3288-Exempts from taxation land that is being transferred into trust acquired after January 1, 1991, and continues till June 1, 1996. Signed by the governor on July 6, 1993.

## **Pennsylvania**

The Legislature meets throughout the year and these bills are being considered.

HB 1771 Provides for the protection of unmarked human burial sites, and provides for the respectful treatment of human resources and repatriation of Native Americans and funerary objects. Is in the House Tourism and Recreation Development Committee.

SB 1107-Provides for the identification and protection of Native American Indian burial sites and imposes penalties.

## **Rhode Island**

In the House Labor Committee a bill died that asked Indian Tribes employing Rhode-Island Residents to adopt a labor relations code protecting workers rights. A bill authorizing cities to create Indian Housing Authorities died in the House Committee on Corporation. One bill was ratified.

HB 6539-Provides for housing of Indians with low income by empowering Rhode Island cities and towns to create an Indian Housing Authority. Signed by the Governor on July, 29 1993.

## **South Carolina**

Two bills were signed by the governor, Senate Bill 608 and 695. The first implemented the settlement of Catawba Indian land and the second provides for a two and one-half million dollar payment to the Catawba Indian Tribe for a portion of the Land Settlement Act.

## **South Dakota**

A Senate bill that would have continued the implementation of the cooperative state-Tribal tax agreement with the Cheyenne River-Sioux died at the end of the calendar. The duplicate Senate Bill of House Bill 1246 was tabled in the Appropriations Committee. Two pieces of legislation were passed.

HB 1001-Establishes a continuing state-Tribal Relations Committee. Signed by the governor on February 8, 1993.

HB 1246-Appropriates money to fund the Indian scholarship program. Signed by the governor on March 30, 1993

## **Tennessee**

One bill would have increased the number of American Indians appointed by the governor to the Tennessee Commission of Indian Affairs from three to four. The measure died in the Government Operations Committee.

## Utah

A House Joint Resolution urging the Skull Bad of the Goshute Nation not to host a Monitored Retrievable Storage facility died in the House, the following bill was enacted.

HB 368-Appropriates money for the reburial of Native American remains recovered from sites throughout the state. Signed by the governor on March 19, 1993.

## Vermont

The Legislature considered two bills relating to state-Tribal interests. The first required a space on Vermont vital records for American Indian racial origins and it died in the House Health and Welfare Committee. In the House General and Military Affairs Committee a bill died proposing to recognize the Abenaki people as a matter of state law and assist the Tribe in obtaining federal recognition. This bill previously died in the 1992 session.

## Washington

Nine bills were debated by Washington policy makers. A bill establishing a center for the development of curriculum American Indians of the Northwest did not pass the House. House Bill 2073 included Indian Tribes in mental health systems, it died in the House Human Services Committee. Modifications to the methods of commercial salmon fishing without affecting existing treaty on Indian fishing rights were provided for in Senate Bill 5087, it died in the Natural Resources Committee of the Senate. A bill that died in the Senate Energy and Utilities Committee would have directed the governor to assemble representatives from state, local and Tribal governments to prepare a report on water reserve issues in the Central Puget Sound Area. A Senate Bill requiring counties to invite affected Indian Tribes to better coordinate programs of water resource planning died in the Energy and Utilities Committee. In the Senate Natural Resources Committee died a bill requesting Indian Tribal fishing interests be represented in development of plans for selected fisheries. Three bills were passed and signed.

HB 1174-Includes in the Washington state history or Pacific Northwest history requirement the cul' ure, history, and government of the American Indian peoples of the state and region. Signed by the governor on April 21, 1993.

HB 1175-Allows the requirements of basic skills in reading/language arts to be able to be met by studying American Indian languages in all grades. Signed by the governor on May 15, 1993.

HB 2048-Clarifies procedures for appropriating money for scholarships from the American Indian Scholarship Endowment Fund. Signed by the Governor on May 15, 1993.

### **Wisconsin**

The Wisconsin State Legislature convened on January 12, 1993 and meets throughout the year. These bills are being considered.

AB 296-Establishes a council on American Indian health preparation, plans, projects, and intercultural training with community program boards. In the Assembly Committee on Health.

AB 382-Allows for the investigation and obtainment of records, criminal arrests, convictions of prospective racing, lottery or Indian gaming employees, licensees or vendors. In the Special Committee on Gambling Oversight. (SB 182)

AB 401-Relates to Tribal reporting of recoveries of public assistance benefits. Is in the Assembly Committee on Rules.

AJR 27-Requests the school board of every public school districts in the state to study whether or not use of an American Indian logo, mascot, or nickname is reinforcing a stereotype or creating an intimidating or offensive environment. Is in the Senate Committee on Education.

### **Wyoming**

The Legislature of Wyoming considered one bill that required Wyoming courts to grant Tribal acts, rewards, and judicial proceedings full faith and credit. This bill died in the Senate Judiciary Committee. It was reintroduced from the 1992 session.

**COUNCIL OF ENERGY RESOURCE TRIBES**

**SALISH KOOTENAI TRIBES**

**1993 SUMMER INTERNSHIP PROGRAM**

**ELEANOR M. YELLOWROBE, INTERN**

- **PERSONAL STATEMENT**
- **RESUME**
- **REPORT**

## **Eleanor M. Yellowrobe**

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My name is Eleanor Yellowrobe and as an MBA graduate student and an enrolled member of the Gros Ventre Tribe of the Fort Belknap Reservation, I have a strong commitment to serve Indian people in the field of economic development. I would like to focus my energy into assisting the development of small businesses by Indian entrepreneurs. I see this as an important strategy that Tribes need to foster and promote on the reservations. The Tribe and individual Tribal members need to look to small businesses as a means of providing needed services for the reservations, and most importantly, as a vehicle for self-employment and self-sufficiency among their people.

This past summer's work experience in tourism development has taught me that development should be approached cautiously, and risks should be calculated. The Tribe's culture should be constantly considered while implementing programs that could affect it. If Tribes have culture committees, their opinions should be continually considered out of respect so misunderstandings about decisions implemented by those affected will not occur, especially in the volatile field of Indian tourism.

**Eleanor M. Yellowrobe**  
118 B Sisson  
Missoula, MT 59801  
(406) 549-7532

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**Objective**

To work in the field of Indian economic development and business consulting.

**Qualifications**

**Administration and Management**

- Wrote business plan for Northern Lights Sewing Enterprise, Hamilton, MT.
- Constructed break-even analysis and three-year cash flow projections for business plan.
- Wrote consulting recommendation report for Fruitland Acres, Thompson Falls, MT.
- Designed business outreach program serving Native American college-bound high school students.
- Administered \$2,000 Montana Human Rights Commission Grant.
- Prepared and disbursed checks, keeping accurate accounting records.
- Entered figures to generate monthly and quarterly accounting records.
- Maintained unit training plans and made appropriate arrangements.

**Public Relations and Writing**

- Current knowledge of Indian Economic Development issues and policies.
- Registered voters for Discover the Indian Vote Campaign.
- Recruited Native American students to the University of Montana.
- Academic advising of Native American students.
- Edited environmental assessment documents.
- Wrote article for "*Northern Region News*", 1989.

**Computer Skills**

- IBM and compatible, Government Data General and Macintosh.
- Software: Wordperfect, Quatro, Lotus, Peachtree Accounting, dBase III, Windows and Drawperfect.

## **Experience**

- Administrative Assistant, Tourism Development Institute, Summer 1993.
- Business Consultant Trainee, University of Montana, School of Business, 1992 - 1993.
- Project Coordinator, Native American Business Institute, University of Montana, School of Business, 1991 - 1993.
- Budget and Accounting Analyst Trainee, U.S. Forest Service, 1991.
- Fiscal Agent, Kyi-Yo Indian Club, University of Montana, Spring 1991.
- Technical Writer Trainee, U.S. Forest Service, Summers of 1989 and 1990.

## **Education**

**B.S.**, Business Administration, Small Business Development emphasis. Native American Studies minor, University of Montana, June 1993.

**A.A.**, Business Administration, Haskell Indian Junior College, 1987.

## **Activities & Honors**

- Captain, Intramural Softball, 1993.
- Secretary-Treasurer, American Indian Science and Engineering Society, 1990 - 1992.
- Advocate, University of Montana, Student Services, 1991 - 1992.
- Peer Mentor, University of Montana, Native American Studies, 1990- 1993.
- Chairperson, Native American Studies Faculty Review Board, 1990.
- Telemarketer, University of Montana Alumni Foundation Phone-a-Thon, 1990.
- Secretary-Treasurer, Kyi-Yo Indian Club, 1988 - 1989.
- Certificate of Merit and Cash Award, U.S. Forest Service, 1988.
- 1st Place, Kate Wagon Smith Creative Writing Contest, 1987.
- Dean's Honor Roll, Haskell Junior College, 1985 - 1987.

## **Reference**

Larry Ginachetta, Dean, School of Business, University of Montana, (406) 243-6195.

**COUNCIL OF ENERGY RESOURCES TRIBES**

**1993 SUMMER INTERNSHIP REPORT**

**SALISH AND KOOTENAI TRIBES**

**Prepared by**

**ELEANOR YELLOWROBE**

**Intern**

**August 1993**

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## **TOURISM DEVELOPMENT ON THE SALISH KOOTENAI INDIAN RESERVATION**

The Salish Kootenai Tribes of the beautiful Flathead Reservation are in the development and implementation phase of the current wave in Indian Economic Development, tourism.

The Salish Kootenai Tribe is taking advantage of an economic opportunity that has existed on their reservation for many years. Prior to the Tribe's involvement, the tourism market on the reservation was estimated at 90 - 99% non-Indian owned and operated.

The Tribe entered the tourism industry not only to take advantage of the economic opportunities that existed, but to develop a policy for the Tribal government to control the current tourism on the reservation and manage the impacts of tourism to protect the cultural and natural resources of the area. Most importantly, the Tribe wants to educate Tribal members, reservation non-Indian community members, and the tourists about the culture and life ways of the Salish and Kootenai Tribes.

Tourism is attractive as an economic development strategy for the Tribe because it is a growing industry in the State of Montana and can uniquely benefit the Salish and Kootenai Tribal community. The Salish and Kootenai Tribe is taking advantage of a trend in the travel and tourism industry which is experiencing an increased demand for experiential and nature-based travel, learning through travel, and a phenomenon referred to as "eco-tourism." In the tourism industry, "sustainable development" has become the enlightened approach to tourism development for current and planned projects impacting cultures and environments.

In planning and implementing, the Salish and Kootenai Tribes have targeted tourism development as a vehicle to assist in achieving their social and economic objectives. To monitor this approach, the Tribe established the Tourism and Recreation Advisory Council (TRAC) which consisted of Tribal employees and community members currently involved in an aspect of tourism, or those concerned with protecting the cultural and natural resources of the reservation. Members include the economic development staff, the natural resource department, the Salish and the Kootenai culture committees, the staff of the culture center, Tribal Council members, and other interested community members.

Through TRAC's policy formation, tourism development will take into account these Tribal objectives:

1. The Salish and Kootenai Tribe must maintain control over their land base and it's resources while managing the impacts of increased tourism activity to the area.
2. The Salish and Kootenai Tribe insists on maintaining the integrity of their cultural heritage.
3. Development must be structured to enable the maximum return to the community and the distribution of benefits must be perceived as fair and appropriate.
4. Tribal assets such as, culture, natural resources, labor, and goodwill and capital must be managed for the long-term. So that the assets are protected and return is "optimized" to create a self-sustaining economic base for the community.

Through the initiative of one enterprising visionary of the Tribes enterprise office, a grant was written to the Administration of Native Americans (ANA) to fund a tourism development program for the Salish and Kootenai Tribes to capitalise on their tourism opportunities while, at the same time, protecting and preserving their unique cultural and natural assets. In May 1993, ANA granted a large sum to the Tribe to pursue this economic opportunity, thus established the Salish and Kootenai Tourism Development Institute.

The Tourism Development Institute (TDI) was organized to develop, test market, and implement appropriate tourism and recreation economic development strategies to benefit the Salish and Kootenai Tribes and their members. Specific objectives include:

1. Developing and implementing a comprehensive marketing and promotional plan for marketing the Reservation as a destination for special interest "test" tour packages.
2. Preparing and implementing a hospitality training program and tourism-related incubator for entrepreneurial development with emphasis on special interest tour operations.

3. Adoption by the Tribal Council of a Tourism and Recreation Strategy and Policy to apply to the future development of this sector of the Reservation economy.
4. Implementing a Native American theme throughout KwaTaqNuk Resort to increase occupancy, repeat visits, and the average length of stay.

Major benefits expected as a result of tourism development by the Salish and Kootenai Tribes include: increased opportunities for quality employment and entrepreneurial development for Tribal members; a well planned, community supported Tourism and Recreation Strategy and Policy which will provide a central theme and guiding principles for a sustainable tourism and recreation-based economy; and increased year-around occupancy with extended lengths of stay for KwaTaqNuk Resort.

Those benefiting from this project will be primarily the Salish and Kootenai Tribes, as sole shareholder of the stock in KwaTaqNuk Resort, and the individual Tribal members who train and work directly in the tourism-related industry in the area. As a secondary benefit, the Reservation community as a whole, will benefit by a sustainable approach to tourism development which will protect and preserve the integrity of the land, people and cultures within the communities on the Reservation as well as providing additional motivation for young people of the Tribes to learn and retain their cultural heritage. Besides the Tribal training and educational benefits, the interpretive programs developed by TDI will become part of the Tribal cultural center's programs by the summer of 1994. The intent is for the interpretive programming to serve as a revenue generator for the center.

The scope of this project is enormous, and the process slow and determined, nevertheless, accomplishments were made during the summer of 1993. Equipment was purchased to ease in the implementation of the project. The most important being the purchase of two Macintosh computers to ease the development of brochures essential to advertising.

A script was researched and prepared for use in the background and history of the Salish, Kootenai, and Pend D'Orielle people of the Flathead Reservation to be told during the guided interpretive programs.

Three tours, or more specifically called, interpretive programs were developed to highlight three existing tourist attractions on the Flathead Reservation, the National Bison Range, the

picturesque St. Ignatius Mission, and Kerr Dam. The guided interpretive programs were designed to inform the touring visitors, about the Salish, Kootenai, and Pend D'Orielle's history, life ways, and views and concerns towards these attractions on their reservation. In other words, give their side of the story regarding the events that led up to the establishment of the reservation and the way in which the people live and maintain their heritage today.

These programs were test marketed late in the summer with good customer response. The initial interest in the programs was low, but after a few programs were given, interest was sparked. Those visitors who participated in these guided tours responded well, and were appreciative of the history and accomplishments of the Tribes. This accomplished a goal of educating the non-Indian to appreciate Native Americans and their achievements and to accept different cultures for the values they have.

A coup to the Tourism Development Institute was through the fortunate luck of having a writer for a travel and leisure magazine wander onto an interpretive program. The article that she would write about TDI and it's programs would generate an enormous amount of free publicity and advertising. This could not have occurred at a better time for TDI. I was enthusiastic about the program and enjoyed her guided interpretive program. She planned to promote the program as a definite must see experience.

At the end of the summer, trade magazines, newspapers, and other prospective advertising sources were being accumulated to be explored for their cost effectiveness for market reach potential. These magazines accept advertising in the fall of the year to be published in the winter for advertisements to be promoted in the spring and summer. Advertising is launched two seasons in advance to reach the market due to tourists planning their vacations two seasons in advance.

The work that TDI is accomplishing is a pledge to their economic and social goals, which the Tribe has established for the members of the Salish and Kootenai Tribes. TDI enables the Tribe to capitalize on their tourism opportunities, while at the same time and most importantly, to protect and preserve their natural resources and unique culture.

**DATE  
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5/12/94

**END**

