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OFFICE OF SECRETARY  
RULEMAKINGS AND  
ADJUDICATIONS STAFF

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:  
E. Roy Hawkins, Presiding Officer  
Richard F. Cole, Special Assistant  
Robin Brett, Special Assistant

In the Matter of:	)	
	)	
HYDRO RESOURCES, INC.	)	Docket No. 40-8968-ML
P.O. Box 777	)	ASLBP No. 95-706-01-ML
Crownpoint, New Mexico 87313	)	
	)	
	)	

**INTERVENORS GRACE SAM'S, MARILYN MORRIS', EASTERN NAVAJO  
DINE AGAINST URANIUM MINING'S, SOUTHWEST RESEARCH AND  
INFORMATION CENTER'S WRITTEN PRESENTATION IN OPPOSITION TO  
HYDRO RESOURCES, INC.'S APPLICATION FOR A MATERIAL LICENSE  
WITH RESPECT TO:**

**CULTURAL RESOURCES ISSUES**

April 28, 2005

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Exhibit C – Declaration of Thomas Morris, Jr.

Exhibit D – Excerpts from *Crownpoint Uranium Project Consolidated Operations Plan, Rev. 2.0* (ACN 9712310298, NB 10.2)

Exhibit E – Excerpt from Marshall, *A Cultural Resources-Environmental Assessment and Management Plan for the Proposed Hydro Resources, Inc., Crownpoint Lease in the Eastern Navajo District, New Mexico* (ACN 9610070106, NB 9.10)

Exhibit F – Excerpt from Blinman, *Cultural Resources Inventory of Proposed Uranium Solution Extraction and Monitoring Facilities at the Church Rock Site and of Proposed Surface Irrigation Facilities at the Church Rock Site and of Proposed Surface Irrigation Facilities North of the Crownpoint Site* (ACN 9704140140, NB 10.1)

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Exhibit H – Excerpt from the Affidavit of Robert D. Carlson, Attached as Staff Exhibit 3 to *Staff's Response to Motion to Stay* (February 20, 1998) (ACN 9802260247)

Exhibit I – NRC letter to Lynne Sebastian, NMSHPO, making determination that there will be no effect on historic properties on Section 17. (May 20, 1998) (ACN 9805270086)

Exhibit J – Testimony of Mr. William A. Dodge, Attached as Intervenors' Exhibit 2 to *Intervenors' Brief in Opposition to Hydro Resources Inc.'s Application for a Materials License with Respect to Compliance with the National Historic Preservation Act, Native American Graves Protection and Repatriation Act, and Related Cultural Resource Issues* (December 7, 1998) (ACN 9812110027).

Exhibit K – NRC Letter to Dr. Phillip Shelley, NMSHPO, dated October 2, 1996 (ACN 9610070079, NB 9.10)

Exhibit L – HRI letters sent to tribes requesting cultural information, Attachment 3 to Request for Additional Information Response Supplement No. 23 (ACN 9605080097, NB 9.8)

Exhibit M - Letter from Mark Pelizza, HRI, to J. Holonich, NRC, forwarding responses to Requests for Additional Information, questions 1-48 (questions 22, 23, and 24 address cultural resources) (February 20, 1996) (ACN 9602220389, NB 9). Responses to questions 22, 23, and 24 are attached as the Exhibit.

Exhibit N - Report from Lorraine Heartfield, indicating that the effort HRI made in contacting neighboring tribes “provided only limited response”. (April 30, 1996) (ACN 9605080097, NB 9.8)

Exhibit O – Letter from Pueblo of Zuni to Mark Pelizza (March 28, 1996) (Attachment 5 to Heartfield Report (ACN 9605080097, NB 9.8).

expenditure of any Federal funds on the undertaking or prior to the issuance of any license.” 36 C.F.R. § 800.1(c).

Second, the Final Environmental Impact Statement (“FEIS”) fails to address cultural resources adequately as required by the National Environmental Policy Act. Further the FEIS is deficient in its discussion and analysis of the impact of the project on cultural resources.

NUREG-1508, Final Environmental Impact Statement to Construct and Operate the Crownpoint Uranium Solution Mining Project, Crownpoint, New Mexico (February 29, 1997) (“FEIS”) (ACN 9703200270, NB 10).

This brief is accompanied and supported by the expert declaration of Dr. Thomas King and Mr. Thomas Morris. Dr. King is a qualified expert in cultural resource management and historic preservation law and policy. King Declaration is attached as Exhibit B. Dr. King’s declaration explains and provides the factual basis for his opinion that the NHPA Section 106 review process is incomplete and that “phased compliance” does not satisfy the requirements of the NHPA. Mr. Morris is a qualified expert in Navajo tradition and medicine. Morris Declaration is attached as Exhibit C. Mr. Morris’ declaration explains and provides the factual basis for his opinion that the NRC Staff’s documentation of traditional cultural properties is inaccurate and under-inclusive.

## **REGULATORY FRAMEWORK**

### **A. National Historic Preservation Act**

#### **1. Background**

The NHPA seeks to preserve from development irreplaceable heritage in the public interest. 16 U.S.C. § 470. The NHPA created the National Register of Historic Places. Section 106 requires agencies to consider the effects of their actions not only on properties listed in the



Register but on those that are eligible for listing. 36 C.F.R. Part 63; 36 C.F.R. Part 800. Further, landscapes and cultural places may also be protected by the NHPA. 36 C.F.R. Part 63.

The NHPA was amended in 1992 to include an explicit recognition that properties of traditional religious and cultural importance to Indian tribes or Native Hawaiian organizations may be eligible for listing in the National Register, and therefore subject to consideration under Section 106 of the NHPA. 16 U.S.C. § 470a(d)(6).

As will be discussed *infra*, due to the NRC Staff's violation of the NHPA at the time of license issuance, they should be subjected to scrutiny under the Advisory Council on Historic Preservation's ("ACHP") regulations as amended in 2000. *See* 65 Fed. Reg. 77,698 *et. seq.*

## 2. Section 106 Consultation

Under Section 106, federal agencies with jurisdiction over federally licensed undertakings are required to take into account the effects of their undertakings on properties eligible for inclusion in the National Register of Historic Places prior to an expenditure or issuance of a license. 16 U.S.C. § 470f; 36 C.F.R. § 800.1(c). An "undertaking" is defined as a project, activity, or program carried out, in whole or in part, under the direct or indirect jurisdiction of a federal agency. 16 U.S.C. § 470w(7); 36 C.F.R. § 800.16(y). An undertaking also means projects, activities, or programs carried out with federal financial assistance, and those requiring a federal permit, license, or approval. *Id.* An "eligible property" is defined, in general, as a property that is at least 50 years old, has historic significance, and retains its integrity (its ability to convey significance). 36 C.F.R. § 60.4.

The process required of a federal agency before a federal undertaking may be approved include: (1) identify potential historic properties, (2) identify the appropriate State Historic Preservation Office ("SHPO") and/or Tribal Historic Preservation Office ("THPO"), and plan, in

consultation with the SHPO/THPO to involve the public, local governments, applicants, and Indian tribes that attach significance to an historic property that could be affected by the undertaking, (3) determine, in consultation with the SHPO/THPO, the area of potential effects, as defined in 36 C.F.R. § 800.16(d); conduct a review of existing information on historic properties within the area of potential effects, and inquire of others potentially knowledgeable about historic properties within the area of potential effects, which requires making a reasonable and good faith effort to identify historic properties (4) evaluate the identified properties to determine whether they meet the National Register Criteria, (5) if potential adverse effects are identified, then develop a plan to avoid or minimize an effects. 36 C.F.R. Part 800.

The 2000 amendments to the ACHP regulations did not substantially change the consultation requirement of Section 106. “The Council retained the core elements of the Section 106 process...[c]hanges adopted were primarily modifications to remove operational impediments in the process and clarification of certain provisions and terms.” 65 Fed. Reg. 77,699. Significant changes to the regulations include: (1) Clarification of the role of the Indian Tribes and Tribal Historic Preservation Officers; (2) Reinforcement of the federal agency’s responsibilities in identifying historic properties; (3) Revision of the use of environmental impact statements to comply with Section 106. *Id.* Other significant changes are not applicable to this case. The remaining changes to the rules are merely “technical and informational edits.” *Id.*

#### B. National Environmental Policy Act

NEPA is the nation’s basic charter for environmental protection. 40 C.F.R. § 1500.1(a). NEPA analysis “must insure that environmental information is available to public officials before decisions are made and actions are taken.” *Id.* at § 1500.1(b). Ultimately, NEPA’s purpose is intended to “help public officials make decisions that are based on understanding of

environmental consequences, and take actions that protect, restore, and enhance the environment.” *Id.* at § 1500(c). NEPA requires all agencies to consider the effects of their actions on all aspects of the human environment. 42 U.S.C. § 4332.

NEPA applies to cultural resources as is implied in the phrase “human environment”. The phrase human environment is given meaning in the regulations as “shall be interpreted comprehensively to include the natural and physical environment and the relationship of people with that environment.” 40 C.F.R. § 1508.14. A thorough NEPA analysis should address both the “human” – social and cultural – aspects of the project as well as the relationship between natural and cultural.

Further, the action agency is required, in the environmental impact statement, to include a discussion of: “[u]rban quality, **historic and cultural resources**, and the design of the built environment, including the reuse and conservation potential of various alternatives and mitigation measures.” *Id.* at § 1502.16. *See also* §§ 1508.27(b)(3) and (8).

### C. Burden of Proof

The applicant for a materials license bears the ultimate burden of proof. 10 C.F.R. §§ 2.732, 2,1237(b); *See also*, *Metropolitan Edison Co.* (Three Mile Island Nuclear Station, Unit 1), ALAB-697, 16 NRC 1265, 1271 (1982). Thus, in order for the applicant to prevail on each contested factual issue, the applicant’s position must be supported by a preponderance of the evidence. *Louisiana Energy Services, L.P.* (Clairborne Enrichment Center), LBP-96-7, 43 NRC 142, 144-145 (1996).

## **FACTUAL AND PROCEDURAL BACKGROUND**

### A. FACTUAL BACKGROUND

HRI has applied for and received a materials license to conduct in situ leach mining on

Section 17 in Church Rock, New Mexico and Unit 1 and Crownpoint in the town of Crownpoint, New Mexico.<sup>1</sup> SUA-1508, (ACN 980116066, NB 11). See Exhibit A. HRI's application proposes processing the uranium extracted from each site at its Crownpoint processing facility. COP at 2 (August 15, 1997) (ACN 9712310298, NB 10.2). Attached as Exhibit D. The NRC has recognized that the licensing of HRI's project is an undertaking within the definition of the National Historic Preservation Act and is therefore subject to NHPA's requirements. FEIS at 3-73.

The Crownpoint Uranium Project lies within an area of cultural significance for numerous tribes. Marshall, *A Cultural Resources-Environmental Assessment and Management Plan for the Proposed Hydro Resources, Inc., Crownpoint Lease in the Eastern Navajo District, New Mexico*, at 27, (September 15, 1992). ("Marshall Crownpoint Report"), (ACN 9610070106, NB 9.10) Attached at Exhibit E. Prehistoric human occupation occurred in the area from 12,000-7,500 B.C. (Paleoindian period) and 7500 B.C. to A.D. 200-400 (Archaic period). Blinman, *Cultural Resources Inventory of Proposed Uranium Solution Extraction and Monitoring Facilities at the Church Rock Site and of Proposed Surface Irrigation Facilities at the Church Rock Site and of Proposed Surface Irrigation Facilities North of the Crownpoint Site, McKinley County, New Mexico* at 7 (April 4, 1997) ("MNM Report") (ACN 9704140140, NB 10.1) Attached as Exhibit F.

Between A.D. 600 and 1500 A.D., the Anasazi civilization dominated the Crownpoint, then Church Rock areas (Basketmaker III period – Pueblo III period). MNM Report at 8. See Exhibit F. Anasazi community complexes are found in the Crownpoint, Unit 1 and Church Rock

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<sup>1</sup> HRI initially intended to mine exclusively at Section 8, but later amended the application to include processing in Crownpoint, and mining at Section 17, Unit 1, and Crownpoint. See Consolidated Operations Plan, Rev. 2.0 at 2-5 (Aug. 15, 1997) (ACN 9712310298, NB 10.2) ("COP"), attached as Exhibit D.

project areas. *Id.*, Marshall Crownpoint Report at 27 *See* Exhibit E. The Kin Yaa'a community complex, part of which is included in Chaco Canyon National Historical Park and State Cultural Properties Register Site No. 57, encompasses the Crownpoint mine site. Marshall Crownpoint Report at 27 *See* Exhibit E. Unit 1 is within the Chacoan Muddy Water community complex, part of which is included in the Muddy Water Chacoan Protection Site and State Cultural Properties Register District. Marshall, *A Cultural Resources-Environmental Assessment and Management Plan for the Proposed Hydro Resources, Inc. Unit No. 1 Lease in the Crownpoint Area of the Eastern Navajo District, New Mexico* at 28, (ACN 9610070079, NB 9.10). Attached as Exhibit G, ("Marshall Unit 1") (December 15, 1991). The Kin Yaa'a and Muddy Water complexes may form a single cultural landscape, eligible itself for listing with the National Register. 36 C.F.R. § 63.

Following the Anasazi civilization, early Navajos settled the area around Crownpoint and Church Rock. MNM Report at 8, *See* Exhibit F. Crownpoint and Unit 1 are the location of extensive historic Navajo settlement. Marshall Crownpoint Report at 27, *See* Exhibit E, Marshall Unit 1 Report at 28, *See* Exhibit G. Some of the early Navajo sites are present near Church Rock. MNM Report at 8, *See* Exhibit F. During the historic period (past 400 years) the project area was the site of interaction among Navajo, Pueblo, Spanish, and Anglo cultures. *Id.* at 9. The area continues to be inhabited by Navajo people and traditional Navajo land use continues. *Id.* at 13.

Further, the area is sacred to traditional Navajo practitioners. Morris Declaration at ¶ 10, 12. The current areas of uranium mining are avoided due to the feared effects the mining has on healing herbs. *Id.* at ¶ 16. Further expansion of mining is likely to have cultural effects on local traditional practitioners as they will have fewer places to gather their herbs. *Id.* at ¶ 17.

## B. PROCEDURAL BACKGROUND

### 1. Intervenors' Hearing Request and Evidentiary Presentations for Section 8

Intervenors, Grace Sam, Marilyn Morris (Sam), ENDAUM, and SRIC, requested a hearing on HRI's license application in December 1994. Intervenors ENDAUM and SRIC amended their request after the FEIS was issued on February 29, 1997. ENDAUM and SRIC's Second Amended Request for Hearing, Petition to Intervene, And Statement of Concerns (August 15, 1997) (ACN 9703080068) ("Second Amended Petition to Intervene"). On January 5, 1998, Staff issued license SUA-1508. The Presiding Officer granted ENDAUM, SRIC, Grace Sam, and Marilyn Morris standing as parties and admitting a number of their concerns for adjudication. *In the Matter of Hydro Resources, Inc.* LPB-98-9, 47 NRC 261, 266 (1998).

The Presiding Officer admitted that the following issues regarding cultural resources were germane: (1) Violation of the National Historic Preservation Act by not identifying historic properties or consulting with the Navajo Nation Historic Preservation Department (2) Violation of the Native American Graves Protection Act by failing to comply with the consultation and concurrence requirements (3) The FEIS and HRI's Environmental Reports do not adequately examine the impacts of the project on cultural resources, Traditional Cultural Properties and traditional cultural practices. *Id.* at 282 and notes 60, 61, and 62. The Presiding Officer further notes that these issues are primarily legal, not factual. *Id.* Intervenors presented evidence for all areas of concern with respect to Section 8. Intervenors' evidence regarding cultural resources for Section 8 are as follows: Intervenors' Written Presentation In Opposition To Hydro Resources, Inc.'s Application For A Materials License With Respect To Compliance With The National Historic Preservation Act, Native American Graves Protection And Repatriation Act And Related Cultural Issues (December 7, 1998) (ACN 9812110027) ("Intervenors' Section 8

Cultural Resources Presentation”); ENDAUM and SRIC’s Second Amended Request for Hearing, Petition to Intervene, And Statement of Concerns (August 15, 1997) (ACN 9703080068).

2. Licensing Board Decisions Relating to Cultural Resources at Section 8

With respect to cultural resources issues for Section 8, the Licensing Board and the Commission issued the following decisions:

a. LBP-98-3, 47 NRC 7 (1998)

In response to Intervenor’s Motion to Stay, which argued that the January 5, 1998 license issuance was unlawfully premature under NHPA Section 106, 16 U.S.C. § 470f, the Presiding Officer imposed a temporary stay on the effectiveness of HRI’s license on January 23, 1998.

b. LBP-98-5, 47 NRC 119 (1998)

The Presiding Officer revoked the temporary stay and denied Intervenor’s Motion to Stay on the effectiveness of HRI’s license on April 2, 1998. The Presiding Officer found that the phased NHPA compliance “does not appear to violate the statute.” LBP-98-5, 47 NRC 119, 125 (1998).

c. LBP-99-9, 49 NRC 136 (1999)

In this Partial Initial Decision regarding cultural resources at Section 8, the Presiding Officer held that the Intervenor failed to prove that HRI’s “phased compliance” plan as to cultural resources was violative of the NHPA. Further, the Presiding Officer found that Intervenor had not proven that the NRC Staff had failed to act in compliance with the step-by-step process of the NHPA. As to the Native American Graves Protection and Repatriation Act, the Presiding Officer finds this statute inapplicable to this case. Finally, as to the National

Environmental Policy Act (“NEPA”) claims, the Presiding Officer found that they were without basis.

3. Commission Decisions Relating to Cultural Resources at Section 8

a. CLI-98-4, 47 NRC 111 (1998)

Intervenors filed a “Petition for Review of LBP-98-5” with the Commission, and on April 16, 1998, the Commission issued another temporary stay, pending its consideration of the Petition.

b. CLI-98-8, 47 NRC 314 (1998)

In CLI-98-8, the Commission reviewed the Presiding Officer’s decision denying Intervenors’ Motion to Stay. The Commission denied the Petition for Review and lifted its temporary stay on June 5, 1998. The Commission did not reach the merits of the question whether NHPA Section 106 requires completion of the NHPA process prior to the issuance of a license.

c. CLI-99-22, 50 NRC 3

On July 23, 1999, the Commission reviewed the Presiding Officer’s decision in four partial initial decisions: LBP-99-1 (Waste Disposal Issues), 49 NRC 29 (1999); LBP-99-9 (Historic Preservation), 49 NRC 136 (1999); LBP-99-10 (Performance-Based Licensing), 49 NRC 145 (1999); and LBP-99-13 (Financial Assurance), 49 NRC 233 (1999). The Commission partially affirmed LBP-99-1, LBP-99-9, and LBP-99-10. 50 NRC 3.

With respect to historic preservation, the Commission held that “phased compliance” was acceptable under applicable law. *Id.* at 12-13. As to NEPA, the Commission held that the release of cultural supporting documents after the Final Environment Impact Statement was



## INTRODUCTION

As part of their presentations pursuant to 10 C.F.R. § 2.1233, Intervenors Grace Sam and Marilyn Morris, Eastern Navajo Diné Against Uranium Mining (“ENDAUM”), and Southwest Research and Information Center (“SRIC”) (“Intervenors”), hereby submit the following legal brief and declarations in support of their opposition to Hydro Resources, Inc.’s (“HRI”) April 13, 1988, materials license application (“Application”), as amended, and its license, (SUA-1508) issued by the United States Nuclear Regulatory Commission (“NRC”) on January 5, 1998 (“License”) (ACN 980116066, Hearing Notebook (“NB”) 11), attached as Exhibit A. Intervenors oppose HRI’s Application and License because HRI’s Application and License fail to satisfy federal laws and regulations governing the protection and preservation of cultural resources.

As litigation regarding HRI’s proposed operations at Section 8 in Church Rock concluded earlier this year, Intervenor’s presentation covers issues pertaining to HRI’s proposed mining operations at Section 17 in Church Rock and Unit 1 and Crownpoint in the town of Crownpoint, New Mexico. *In the Matter of Hydro Resources, Inc.*, LBP-04-3, 59 NRC 84, 109 (2004).

HRI’s materials license should be revoked or amended with respect to Section 17, Unit 1, and Crownpoint for two reasons. First, HRI’s license application fails to comply with Section 106 of the National Historic Preservation Act (“NHPA”). This section requires that agencies consider the effects of their actions on historic properties. The regulations implementing Section 106 (36 C.F.R. Part 800) establish a detailed process of analysis and consultation by which such consideration is to be accomplished. Consultation has been initiated in this case, but is far from complete. Completion of the Section 106 process is a requirement “prior to the approval of the

published, did not require the completion of a Supplemental Environmental Impact Statement.

*Id.* at 14.

## ARGUMENT

### I. THE NRC STAFF VIOLATED THE NHPA BY ISSUING A LICENSE TO HRI WITHOUT COMPLETING THE SECTION 106 PROCESS.

#### A. Section 17

The NHPA specifically requires that “any Federal department or independent agency having authority to license any undertaking shall, ...*prior* to the issuance of any license... take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register.” 16 U.S.C. § 470f (emphasis added). The advance timing requirement in the plain language of the statute is echoed by the Advisory Council on Historic Preservation’s, (“ACHP”) governing regulation, which is binding on all federal agencies. That regulation explicitly states that the “agency official must complete the section 106 process ... prior to the issuance of any license.” 36 C.F.R. § 800.1.

As is made clear in several documents, the HRI lease area is located within a “cultural district of considerable significance.” See e.g. Marshall Crownpoint Report at 27 (ACN 9610070106, NB 9.10). See Exhibit E. Despite this acknowledged fact, the NRC staff has failed to comply with the NHPA. As various Courts of Appeal have held, “§ 106 is a ‘stop, look, and listen’ provision, requiring an agency to acquire and consider information prior to making a decision. *Friends of Atglen-Susquehanna Trail, Inc. v. Surface Transportation Board*, 252 F.3d 246, 263 (3d Cir. 2001); *Illinois Commerce Commission v. ICC*, 848 F.2d 1246, 1260-61 (D.C. Cir. 1988); *Muckleshoot Indian Tribe v. U.S. Forest Service*, 177 F.3d 800, 805 (9th Cir. 1999). “While [Section 106] may seem to be no more than a ‘command to consider,’ ... the language is

mandatory and the scope is broad.” *United States v. 162.20 Acres of Land, More or Less*, 639 F.2d 299, 302 (5th Cir.1981), *cert. denied*, 454 U.S. 828 (1981).

The NRC Staff rely on HRI’s ‘phased approach’ to mining activity in order to justify the failure to comply with the NHPA requirements. This issue has been addressed by both the Board and the Commission previously. In LBP-98-5, 47 NRC 119, the Presiding Officer states that “[p]etitioners are silent on the acceptability of the phased approach in complying with the requirements of NHPA”. LBP-98-5, 47 NRC 119, 125-5 (1998). Also as stated by the Commission in CLI-98-8, 47 NRC 314, “[t]he statute itself contains no such prohibition [against phased compliance], federal case law suggests none, and the supporting regulations are ambiguous on the matter...” CLI-98-8, 47 NRC 314, 323-4 (1998). However, circumstances have changed since the previous decisions in this case. Congress has enacted amendments to the NHPA and the ACHP has spoken to address this issue head-on in 36 C.F.R. § 800.4(b)(2). The regulations are no longer “ambiguous on the matter” as they may have been in 1999. CLI-98-8, 47 NRC 314, 323-4 (1998). The federal courts have also spoken on the matter. As discussed below, the new ACHP regulations and federal case law make clear that phased compliance is not applicable to HRI, as both its sites for mining and alternative are firmly known, and thus they do not qualify for phased compliance.

The new regulation addressing phased compliance is at 36 C.F.R. § 800.4(b)(2). It states that “[w]here alternatives under consideration consist of large corridors or large land areas, or where access to properties is restricted, the agency official may use a phased process to conduct identification and evaluation efforts.” 36 C.F.R. § 800.4(b)(2) *emphasis added*. This new regulation makes clear that once an alternative has been chosen, phased compliance is prohibited. As will be discussed *infra*, the new regulations make clear that the NRC Staff’s

issuance of the license prior to the completion of the NHPA process was also in violation of the NHPA regulations in effect at the time of issuance.

In a case presenting similar circumstances to the license at issue, the Mid States Coalition for Progress, among others, alleged that the Surface Transportation Board (“Board”) violated the NHPA by approving the license of the Dakota, Minnesota & Eastern Railroad Corporation to construct a rail line without fully completing the NHPA process. *Mid States Coalition for Progress v. Surface Transportation Board*, 345 F.3d 520 (8th Cir. 2003). The Court recognized that the NHPA sets out a general three-step process of identification, assessment, and mitigation. *Id.* at 553. The Court further recognized that generally, an agency will complete one step before moving on to the next, but that the regulations permit an agency to use a “phased process” of identifying and evaluating properties where “alternatives under consideration consist of corridors or large land areas.” *Id.* at 553-554, *citing* 36 C.F.R. § 800.4(b)(2). The regulation goes on to state that the agency’s phased process “should establish the likely presence of historic properties within the area of potential effects for each alternative ... through background research, consultation and an appropriate level of field investigation, taking into account the number of alternatives under consideration, the magnitude of the undertaking and its likely effects, and the views of the [historic preservation officers] and any other consulting parties.” 36 C.F.R. § 800.4(b)(2).

The Board alleged that due to the large project area and the variety of alternatives, the ACHP regulations allowed it to defer making a final evaluation or adopt specific measures to avoid or mitigate any adverse effects until after the license had been approved. *Mid States Coalition for Progress*, 345 F.3d 520, 554. The Board had completed the consultation process, identified some potentially affected sites, completed a Draft Environmental Impact Statement

and a Final Environmental Impact Statement on the project and then approved the railroad's license, dependent on future identification of cultural sites. *Id.*

The Court held that the Board's interpretation of the regulation was acceptable only at the beginning of the project. *Id.* Once "specific aspects or locations of an alternative are refined", the regulation required that the agency "proceed with the identification and evaluation of historic properties." *Id. citing* 36 C.F.R. § 800.4(b)(2). The Court stated that "[t]he ACHP's regulations, when read in their entirety, thus permit an agency to defer completion of the NHPA process until after the NEPA process has run its course (and the environmentally preferred alternatives chosen), but require that NHPA issues be resolved by the time that the license is issued." *Id.* As interpreted by another Court, the "phased process" of postponing the process of identifying sites is permitted until the agency chooses between the alternatives. *Pit River Tribe v. Bureau of Land Management*, 306 F. Supp.2d 929, 945 (E.D. Cal. 2004).

The *Mid States Coalition for Progress* Court further discusses that in lieu of full compliance with NHPA prior to the issuance of a license, the regulations provide for the development of a programmatic agreement. 345 F.3d 520, 554. A programmatic agreement, according to the regulations, may be used to substitute for full compliance with the Section 106 process. 36 C.F.R. § 800.14. A programmatic agreement may be negotiated between the Council and the agency official "to govern the implementation of a particular program or the resolution of adverse effects from certain complex project situations or multiple undertakings." *Id.* at § 800.14(b). A programmatic agreement may be used: "(i) when effects on historic properties are similar and repetitive or are multi-State or regional in scope; (ii) when effects on historic properties cannot be fully determined prior to the approval of an undertaking; (iii) When nonfederal parties are delegated major decisionmaking responsibilities; (iv) where routine

management activities are undertaken at Federal installations, facilities, or other land-management units; or (v) where other circumstances warrant a departure from the normal section 106 process.” *Id.* The Court held that since the Board neither fully complied with the NHPA nor secured a programmatic agreement in accordance with the regulations prior to the issuance of the license, it was in violation of the NHPA. The Board was ordered, on remand, to either fully complete the NHPA process or secure an alternative programmatic agreement. *Mid States Coalition for Progress*, 345 F.3d 520 at 554-555.

The NRC Staff has committed the same mistake as the Board in *Mid States Coalition for Progress*. On January 5, 1998, the NRC Staff issued to HRI the Materials License at issue. See Exhibit A. The NHPA process was not completed prior to the issuance to the license, nor has it been completed to date. HRI freely admits that compliance with the NHPA is not complete. See COP at 23 (ACN 9708210179, NB 10.3). Attached as Exhibit I. The Materials License further emphasizes the fact that the NHPA process is not complete, stating that “[b]efore engaging in any construction activity not previously assessed by the NRC, the license shall conduct a cultural resource inventory. All disturbances associated with the proposed development will be completed in compliance with the National Historic Preservation Act of 1966, as amended, and its implementing regulations (36 C.F.R. Part 800), and the Archeological Resources Protection Act of 1979, as amended and its implementing regulations (43 C.F.R. Part 7).” HRI Materials License at ¶ 9.12, attached as Exhibit A. Further, this fact is freely admitted in Affidavits attached to the NRC Staff’s previously filings. Staff’s Response to Motion to Stay (February 20, 1998), Affidavit of Robert D. Carlson (February 20, 1998), ¶ 13 (“NHPA process is far from concluded”). (ACN 9802250238) Attached as Exhibit J

If an agency chooses to prepare a programmatic agreement as an alternative to completing the NHPA process, it must consult with the Advisory Council on Historic Preservation (“ACHP”) and the State Historic Preservation Officer (“SHPO”). *Walsh v. United States Army Corps of Engineers*, 757 F.Supp. 781, 789 (W.D. Texas 1990), *citing* 36 C.F.R. § 800.13(b). The ACHP, with the assistance of the agency, must arrange for public participation in the process. *Id.*, *citing* 36 C.F.R. § 800.13(c). After consideration of any public comments and reaching final agreement, the agency and the ACHP may then execute the programmatic agreement, thereby satisfying the agency’s Section 106 responsibilities. *Id.* An approved programmatic agreement satisfies the agency’s Section 106 requirements for all individual undertakings carried out in accordance with the agreement until it expires or is terminated. *Id.*, *citing* 36 C.F.R. § 800.13(e).

The NRC Staff has not executed a Programmatic Agreement in compliance with the NHPA regulations governing Programmatic Agreements as discussed above. No consultation with the ACHP has ever taken place during the course of this project.

Since the NRC Staff has failed to comply fully with the requirements of the NHPA and has not completed the alternative Programmatic Agreement, HRI’s Materials License was issued in violation of the NHPA.

In 1992, Congress enacted amendments to the NHPA. See King Declaration at ¶ 36. The regulations were revised in compliance with the amendments in 2000. 65 Fed. Reg. 77,698. Notably, the revised regulations removed 36 C.F.R. § 800.3(c), which mentioned “phased” compliance while leaving the term open to interpretation, and substituted a much more elaborate discussion of “phased identification and evaluation” at 36 C.F.R. § 800.4(b)(2). King Declaration at ¶ 37. In Dr. King’s opinion, the discussion of “phased identification and

evaluation” was elaborated on because the Advisory Council on Historic Preservation (“ACHP”) recognized that the approach was being used precisely as it has been used in this case – to reach Federal agency decisions without complying with the regulatory requirements, based on the mere promise to do so at a later date. *Id.* at ¶ 38.

The current regulations governing Section 106 compliance went into effect on January 11, 2001. 65 Fed. Reg. 77,698 (2000) (final rule). The ACHP reviewed the previous regulations and discussed the reasons for the changes to the regulations. The ACHP stated that the reasoning behind 36 C.F.R. § 800.4(b)(2) was that “[a]ny further deferral of final identification would complicate the process and jeopardize an adequate assessment of effects and resolution of effects.” 65 Fed. Reg. 77,719. The ACHP further stated that they “retained the core elements of the Section 106 process that have been its hallmark since 1974.” *Id.* at 77,699. The *Highlights of Changes* section of the new rule further clarifies that the ACHP does not view the addition of 36 C.F.R. § 800.4(b)(2) as a “major change” as it is not described in that section. Thus, one is left to assume that the ACHP considers the addition of 36 C.F.R. § 800.4(b)(2) a “technical or informational edit” as was made “throughout the rule”. *Id.*

Both Dr. King’s declaration and the current regulations and comments therein make clear that the approach that the NRC Staff has taken in this case is clearly against the spirit of the NHPA regulations that were in effect at the time of the undertaking. King Declaration ¶ 16. This approach does not allow the agency to “take into account the effects of their undertakings on historic properties.” 36 C.F.R. § 800.1

Further, the NRC Staff has subjected themselves to the new regulations due to their violation of the NHPA at the time of the issuance of the license. In a case presenting similar circumstances, the Federal Transit Administration, undertook archeological exploration of a site



that was likely to contain historic resources. *Preservation Coalition of Erie County v. Federal Transit Administration*, 356 F.3d 444, 447 (2nd Cir. 2004). The Federal Transit Administration concluded that there would be no adverse effect on historic resources. *Id.* at 448. During excavation, an historic property was recovered and the State Historic Preservation Officer (“SHPO”) was contacted. *Id.* The FEIS in this project and all consultation occurred prior to the publication of the new ACHP regulations. *Id.* The Court found that the FEIS was inadequate and that this subjected the Federal Transit Administration to the new ACHP regulations. *Id.*

Similarly, in this case, as the NRC Staff was in violation of the existing regulations, they should be held subject to the new regulations. It is irrelevant that the NRC Staff has already made a determination of no effect on historic properties on Section 17. See NRC letter to Lynne Sebastian, (May 20, 1998) (ACN 9805270086) Attached as Exhibit K. The fact that the entire NHPA process has not been fully completed prior to issuance of the license puts the entire project in violation of the NHPA.

B. Unit 1

As the NRC Staff’s violation of the NHPA is project-wide, rather than site-specific, all arguments from Section 17 are hereby incorporated by reference.

C. Crownpoint

Similarly, as the NRC Staff’s violation of the NHPA is project-wide, rather than site-specific, all arguments from Section 17 are hereby incorporated by reference.

D. Summary of Decisions Regarding License Issuance Prior to Completion of Section 106 Process at Section 8

1. Summary of Intervenors’ Evidence for Section 8

In their 1998 evidentiary presentation on cultural resources issues, Intervenors ENDAUM and SRIC challenged the NRC Staff issuance of the HRI Materials License based on the failure

of the NRC Staff to complete the NHPA process. Intervenor's Brief in Opposition to Hydro Resources Inc.'s Application for a Materials License with Respect to Compliance with the National Historic Preservation Act, Native American Graves Protection and Repatriation Act, and Related Cultural Resource Issues at 40-45 (December 7, 1998) (ACN 9812110027).

ENDAUM and SRIC contended that the NRC Staff violated the ACHP regulations by issuing the license prior to the completion of the NHPA process. In support of their argument, Intervenor's relied upon the ACHP regulations and the expert testimony of Mr. William A. Dodge. Attached as Exhibit L.

2. Summary of Evidence and Decisions Regarding License Issuance Prior to the Completion of Section 106 Process at Section 8
  - a. Presiding Officer's decision regarding license issuance prior to the completion of Section 106 process at Section 8

The former Presiding Officer, Judge Bloch, issued his determination on all the cultural resource issues for Section 8 in LBP-99-9, 49 NRC 136 (1999). With respect to the issuance of HRI's Material License prior to the completion of Section 106 requirements, Judge Bloch found that Intervenor's had not provided legal proof that NRC's "phased compliance" was not in accordance with the NHPA.

- b. Commission's decision regarding license issuance prior to completion of Section 106 process at Section 8

The Commission, in CLI-99-22, 50 NRC 3 (1999), affirmed the Presiding Officer's decision regarding cultural resources in LBP-99-9, 49 NRC 136 (1999). The Commission also found that Intervenor's had provided the Commission with no guidance to show that the NHPA did not allow for phased compliance of the kind that the NRC Staff proposed.

3. Section 17, Unit 1, and Crownpoint are Unlike Section 8 for Purposes of Completion of Section 106 Process

The review of Section 17, Unit 1, and Crownpoint are vastly different than the circumstances that presented themselves upon the review of Section 8 in 1999, as discussed more completely above. The primary reason for this is the increased understanding of the requirements of the NHPA. Additional guidance has come from the Congress, the courts and the ACHP. Since the previous decision, Congress has provided additional guidance by amending the NHPA in 1992 and the ACHP has provided additional guidance by amending the regulations accordingly in 2000.

Cases such as *Mid States Coalition for Progress v. Surface Transportation Board*, have been decided by the federal courts which give the clear direction the Presiding Officer was lacking in his 1999 review of Intervenors' presentation. 345 F.3d 520 (8th Cir. 2003).

II. THE NRC STAFF FAILED TO FOLLOW THE SECTION 106 PROCESS ESTABLISHED BY ACHP REGULATIONS.

A. Section 17

1. Consultation

Section 106 of the NHPA and its implementing regulations describe a step-by-step process imposed on federal agencies to consider the effect of any federal undertaking on properties listed or eligible for listing on the National Register of Historic Places. 36 C.F.R. § 800; *See also* King Declaration ¶ 9. The steps required of an agency under Section 106 of the NHPA include: identification of historic properties; assessment of any adverse effects of the proposed undertaking on such properties; and creation of a plan to avoid, minimize, or mitigate those adverse effects. 36 C.F.R. § 800.1(a); King Declaration ¶ 10.

As a preliminary matter, there is a federal “undertaking” involved as the HRI Materials License is an undertaking within the scope of the NHPA because it involves the issuance of a federal license. 16 U.S.C. § 470w(7); 36 C.F.R. § 800.16(y); *See* FEIS at 3-73.

As set out by the NHPA implementing regulations, “the agency official may use the services of applicants, consultants, or designees to prepare information, analyses and recommendations under this part. The agency official remains legally responsible for all required findings and determinations.” 36 C.F.R. § 800.2(a)(3). Further, the regulations provide that Section 106 process should be initiated early. *Id.* at § 800.1(c).

Section 106 review begins with consultation between the responsible federal agency and the SHPO, tribes, and other interested parties, together with planning for public participation. 36 C.F.R. § 800.3(c); King Declaration ¶ 10. The process has begun, but has not been completed and thereby has not fulfilled the requirements of the NHPA. *Id.* ¶ 11. The NRC Staff initiated the consultation process by contacting the New Mexico State Historic Preservation Officer (hereafter “SHPO”), Dr. Phillip Shelley, by letter dated October 2, 1996 (ACN 9610070079, NB 9.10) Attached as Exhibit K. HRI also sent form letters to area THPO’s or tribal leaders on February 22, 1996 Attachment 3 to Request for Additional Information Response Supplement No. 23 (ACN 9605080097, NB 9.8) Attached as Exhibit L. These brief letters informed the tribes of the project, then asked the tribes to “[p]lease notify us of traditional cultural properties that might be located in or near the site locations described above, so that they can be considered in the planning process.” *See* Exhibit L. This approach is insulting to the tribes and does not approach the matter in a government-to-government relationship. King Declaration ¶ 12. The letter is sent on HRI letterhead and makes no mention that they are attempting to initiate Section 106 consultation under the NHPA. Further, the letter makes no mention of the involvement of

the NRC Staff. A similar set of facts presented itself in *Pueblo of Sandia v. U.S.* 50 F.3d 856 (10th Cir. 1995). In that case, the Forest Service sent form letters to tribes and individual tribal members who were known to be familiar with traditional cultural properties. *Id.* at 860. The letters requested detailed information including the location of the sites, activities conducted there, and the frequency of activities. *Id.* The Forest Service also addressed meetings of tribal organizations. *Id.* None of these efforts yielded the information that the Forest Service requested with respect to cultural properties. *Id.* The Court held that “the information the tribes did communicate to the agency was sufficient to require the Forest Service to engage in further investigation, especially in light of regulations warning that tribes might be hesitant to divulge the information sought.” *Id.* Although the Court in *Pueblo of Sandia* did not hold that form letters violated the NHPA, they did however, indicate that it was inadequate consultation under Section 106. *Id.*

The NRC Staff has similarly provided for inadequate consultation to the tribes, particularly Hopi, Laguna, Acoma, and Zuni. King Declaration ¶ 17. It has completed nothing much beyond the form letters to these tribes with respect to traditional cultural resources consultation as set out below.

As a follow up to materials previously provided to the NRC, in January, 1996, the NRC Staff sent HRI three Requests for Additional Information on the subject of cultural resources. Letter from Mark Pelizza, HRI, to J. Holonich, NRC, forwarding responses to Requests for Additional Information, questions 1-48 (questions 22, 23, and 24 address cultural resources) (February 20, 1996) (ACN 9602220389, NB 9). Responses to questions 22, 23, and 24 are attached as Exhibit M. HRI states in the cover letter that all responses (22, 23, and 24) related to cultural resources are incomplete as they “will be the subject of additional work by our cultural

resources contractor.” See Exhibit M. Request for Additional Information Question No. 24 directly requested information regarding consultation with Navajo, Hopi, Zuni, Acoma, Laguna, as well as other potentially affected tribes describing the Traditional Cultural Properties of each tribe at or near each of the three sites, in accordance with the National Park Service’s National Register Bulletin 38, Guidelines for Evaluating and Documenting Traditional Cultural Properties. *Id.* at 7. This answer was subsequently supplemented in May 1996, when HRI submitted a report from Lorraine Heartfield, indicating that the effort HRI made in contacting neighboring tribes “provided only limited response”. (April 30, 1996) (ACN 9605080097, NB 9.8). Attached as Exhibit N. The Heartfield report admits that she had an in-person meeting with only the Navajo Nation Historic Preservation Department. *Id.* at 2. Ms. Heartfield made follow-up telephone calls to the February 22, 1996, form letters to ensure they were received. *Id.* at 3.

On March 28, 1996, the Pueblo of Zuni did indeed respond to HRI’s letter. Attachment 5 to Heartfield Report (ACN 9605080097, NB 9.8). Attached as Exhibit O. The Director of the Heritage and Historic Preservation Office stated that the “Pueblo of Zuni may well have places of traditional and cultural importance within the project area.” *Id.* The Director further states that the Zuni Cultural Resources Advisory Team would need to do a review of the area to identify potentially effected cultural resources. *Id.* The Director further indicated that he believed that this effort would be required in order to comply with Section 106 of the NHPA. *Id.* It appears from the record that this action by the Zuni Cultural Resources Advisory Team was never undertaken.

In fact, beyond the limited actions taken by Ms. Heartfield, it appears from the record that no other attempts to receive information on traditional cultural properties from tribes have

occurred. The only other contacts with tribes appear to be the forwarding of the various archaeological reports.

This lack of consultation does not fulfill the requirements of the Section 106 consultation process. King Declaration ¶ 11, 25. The facts of this case are similar to *Pueblo of Sandia*. 50 F.3d 856. In that case, the Forest Service had gotten some information that the project area was of traditional importance to the Pueblo of Sandia. *Id.* at 860. In this case as well, the NRC Staff has been informed that the area could contain places of cultural importance to the Pueblo of Zuni. In not pursuing this information, the NRC Staff did not make a “reasonable and good faith effort” to evaluate the project area’s eligibility for inclusion in the National Register in violation of 36 C.F.R. § 800.4(b).

As the NRC Staff remains responsible for completing the requirements of consultation under the NHPA and they have failed to complete these requirements, they erred by issuing HRI the materials license. As required in the implementing regulations, the agency official must complete the section 106 process prior to the issuance of any license. 36 C.F.R. § 800.1(c). To issue the license prior to the completion of the section 106 process is a clear violation of the NHPA and HRI’s license should be revoked until all Section 106 requirements are fulfilled by NRC Staff.

## 2. Site-Specific Analysis

A cultural resources inventory was completed on Section 17 and 8 in 1997. This inventory was commissioned from the Office of Archaeological Studies, Museum of New Mexico. MNM Report (ACN 9704140140, NB 10.1). On May 20, 1998, relying on the MNM Report, the NRC Staff made a finding of no effect on historic properties on Sections 8, 17, and Crownpoint Section 12. See NRC letter to Lynne Sebastian, (May 20, 1998) (ACN

9805270086) Attached as Exhibit I. The MNM Report does not consider the presence of non-Navajo Traditional Cultural Properties. King Declaration ¶ 17. As the consultation process was incomplete, any finding of no effect on historic properties was premature.

B. Unit 1

1. Consultation

As the consultation process was undertaken project-wide, rather than on site-specific locations, the Section 17 argument with respect to consultation is hereby incorporated by reference.

2. Site-Specific Analysis

Unit 1 mining is proposed for Sections 15, 16, 21, 22 and 23, T17N, R13W. FEIS at 2-26. The Marshall Unit 1 Report is a “preliminary planning document for cultural resource management in the proposed HRI Unit No. 1 lease area.” Marshall Unit 1 Report at 1 (December 15, 1991) (ACN 9610070114, NB 9.10). *See* Exhibit G. The report recognizes that the area is located within the Chacoan Muddy Water community complex and is in an area of considerable significance. *Id.* at 28. *See* Exhibit G. Further, the author recognizes that the lease area “...has the potential to contain properties of sacred or traditional value. Numerous cultural properties that qualify for nomination to the National Register are clearly present in the lease area.” *Id.*

This report makes clear that further studies should be completed to confirm that all cultural properties are identified to ensure that the NRC Staff is aware of the full cultural impact of the license issuance.

C. Crownpoint

1. Consultation



As the consultation process was undertaken project-wide, rather than on site-specific locations, the Section 17 argument with respect to consultation is hereby incorporated by reference.

## 2. Site-Specific Analysis

The Crownpoint site encompasses portions of Sections 19, 24, and 25, T17N, R13W, and Section 29, T17N, R12W. FEIS at 2-28. In September, 1992, the Marshall Crownpoint Report was prepared for Sections 19, 25, and 29 of the Crownpoint site, but not Section 24. As stated in the report, it does not contain site surveys, rather it is a "preliminary planning document for cultural resource and traditional site management." Marshall Crownpoint Report at 1 (September 15, 1992), (ACN 9610070106, NB 9.10). Attached as Exhibit E.

The report admits that a Class III Cultural Resources Inventory needs to be completed. *Id.* at 5. *See* Exhibit E. Further, it admits that the Section 106 process of the NHPA has not yet been completed. The report states, that during the course of the Class III Cultural Resources Inventory, "[e]ach site will also be evaluated with respect to its significance in terms of the National Register (36 C.F.R. 60.4), the Archeological Resources Protection Act (43 C.F.R. 7.3), and the American Indian Religious Freedom Act (AIRFA)." *Id.* This is despite the fact that the report states that the lease area is "located within a cultural district of considerable significance", and thus a systematic Class III cultural (archaeological) inventory and traditional site inquiry are necessary. *Id.* at 27. *See* Exhibit E.

Therefore, even though the Marshall Crownpoint Report recognizes the area is of great cultural significance, and states that a more in-depth survey is required, minimal work was done, with the result that important resources may have been overlooked. Therefore, similar to Unit 1,

additional studies should be completed to ensure that all cultural resources are properly identified.

D. Summary of Evidence and Decisions Regarding Section 8 Compliance with the NHPA Section 106 process.

1. Summary of Intervenor's Evidence for Section 8

Intervenors primarily relied upon the testimony of William A. Dodge for their evidence regarding the adequacy of the Section 106 compliance process. Attached as Exhibit J. Through the use of the MNM Report, Intervenor argued that the finding of no effect was premature and also only applied archaeological sites, not Traditional Cultural Properties.

2. Summary of Decisions Regarding Section 8 Compliance with the NHPA Section 106 Process.

a. Presiding Officer's decision regarding Section 8 compliance with the NHPA Section 106 Process

The Presiding Officer, in LBP-99-9, 49 NRC 136 (1999), found that the Intervenor had failed to raise serious doubts that the NRC failed to comply with the NHPA Section 106 process.

b. Commission's decision regarding Section 8 compliance with the NHPA Section 106 Process

The Commission upheld the Presiding Officer's decision in LBP-99-9, 49 NRC 136 (1999), holding that the Intervenor had failed to demonstrate any violation of the NHPA. CLI-99-22, 50 NRC 3 (1999).

3. Section 17, Unit 1, and Crownpoint are Unlike Section 8 for Purposes of Compliance with the NHPA Section 106 Process.

Crownpoint and Unit 1 have not had the more extensive Cultural Resources Inventory completed as have Section 17 and Section 8. The NRC Staff should be required to complete

similar inventories on project areas to see the full archaeological impacts that this project will have on the lease area.

**III. THE FINAL ENVIRONMENTAL IMPACT STATEMENT FAILS TO ADEQUATELY ADDRESS THE IMPACTS OF THE PROJECT ON CULTURAL RESOURCES.**

**A. Section 17**

Courts have held that federal agencies must take a “hard look” at all of the significant consequences of their actions. *Baltimore Gas & Electric Company v. Natural Resources Defense Council*, 462 U.S. 87, 97 (1983). In order to take a hard look, the NRC Staff must “[f]ully consider the impacts of [its proposal] on the physical, biological, social, and economic impacts of the human environment.” 40 C.F.R. § 1508.14. As demonstrated below, the NRC Staff has failed to take the requisite hard look at the impacts of the HRI Materials License on cultural resources.

In order to take a hard look at the environmental consequences, an agency must consider all relevant scientific information. “Accurate scientific analysis, expert agency comments, and public scrutiny are essential in implementing NEPA.” 40 C.F.R. § 1500.1(b). “An agency takes a sufficient ‘hard look’ when it obtains opinions from its own experts, obtains opinions from outside the agency, gives careful scientific scrutiny and responds to all legitimate concerns that are raised.” *Hughes River Watershed Conservation v. Johnson*, 165 F.3d 283, 288 (4th Cir. 1999); *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 353 (1989). Further, an FEIS must evaluate environmental impacts in sufficient detail to permit a meaningful analysis. *Montgomery v. Ellis*, 364 F. Supp. 517, 521 (N.D. Ala. 1973) (rejecting EIS for insufficient project description).

In this case, the FEIS was drafted and published while the NRC's Section 106 process was in the initial identification phases. Since not all cultural resources had been identified at the time, nor have they yet, the NRC Staff did not take the requisite hard look at the environmental consequences of this action. The FEIS admits that "[f]ew project-specific data exists." FEIS at 3-68. Further, the FEIS focuses on only the impacts to cultural resources that result from physical damage and only covers sites that have been discovered within the project. FEIS at 4-109; King Declaration at ¶ 11, 27. By failing to identify exactly what environmental effects this project will cause prior to the decision to issue the license, the NRC Staff has violated the NEPA.

**B. Unit 1**

As the NRC Staff's violation of the NEPA is project-wide, rather than site-specific, all arguments from Section 17 are hereby incorporated by reference.

**C. Crownpoint**

Similarly, as the NRC Staff's violation of the NEPA is project-wide, rather than site-specific, all arguments from Section 17 are hereby incorporated by reference.

**D. Summary of Evidence and Decisions Regarding Section 8**

**1. Summary of Evidence Regarding Sufficiency of FEIS in Relation to Cultural Resources for Section 8**

Intervenors previously relied upon the NEPA statute itself as well as the implementing regulations to argue that the NRC Staff failed to take the requisite hard look at the environmental impacts of the project.

**2. Summary of Decisions Regarding Sufficiency of FEIS in Relation to Cultural Resources for Section 8**

**a. Presiding Officer's decision regarding sufficiency of FEIS in relation to**

cultural resources for Section 8

The Presiding Officer in LBP-99-9, 49 NRC 136 (1999), held that since there were no deficiencies in the Section 106 NHPA process, that there likewise no deficiencies with respect to the NRC Staff's NEPA analysis. *Id.* at 11. In coming to this conclusion, the Presiding Officer relied upon the NRC's Staff recommendation in the FEIS that HRI implement a final cultural resources plan for all mineral operating lease areas and other lands affected by license activities pursuant to the NHPA Section 106 review and consultation processes. *Id.* citing FEIS at 4-111,112.

b. Commission's decision regarding sufficiency of FEIS in relation to  
cultural resources for Section 8

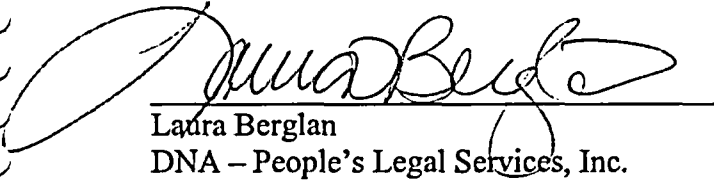
The Commission upheld the Presiding Officer's decision with respect to compliance with NEPA in CLI-99-22, 50 NRC 3 (1999).

3. Section 17, Unit 1, and Crownpoint are Unlike Section 8 for Purposes of  
Evaluating the Sufficiency of FEIS

Section 17, Unit 1, and Crownpoint differ from Section 8 in regards to NEPA issues because, similar to NHPA Section 106 compliance, Unit 1 and Crownpoint lack the extensive archaeological survey that occurred on Section 17 and Section 8. It is impossible for the NRC Staff to "make decisions that are based on understanding the environmental consequences" when they are not aware of all the environmental consequences. 40 C.F.R. § 1500.1; King Declaration ¶ 30.

**CONCLUSION AND REQUEST FOR RELIEF**

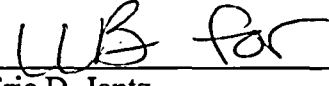
For the foregoing reasons, HRI's License for Section 17, Unit 1, and Crownpoint should be revoked or otherwise amended as requested.



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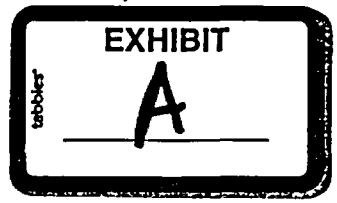
MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

1. Hydro Resources, Inc. Licensee 2929 Coors Blvd, NW Suite 101 Albuquerque, NM 87120	3. License Number	SUA-1505
	4. Expiration Date	January 5, 2003
	5. Docket or Reference No.	40-8968
6. Byproduct, Source, and/or Special Nuclear Material	7. Chemical and/or Physical Form	8. Maximum Amount that Licensee May Possess at Any One Time Under This License
Uranium	Any	Unlimited

SECTION 9: ADMINISTRATIVE CONDITIONS

- 9.1 The authorized place of use shall be the licensee's Crownpoint Uranium Project which includes the Crownpoint, Unit 1, and Church Rock uranium recovery and processing facilities in McKinley County, New Mexico.
- 9.2 All written notices and reports required under this NRC license (with the exception of effluent monitoring reports required under License Condition (LC) 12.3 and 10 CFR Part 40.65, which shall also be submitted to Region IV) shall be addressed to the Chief, Uranium Recovery Branch, Division of Waste Management, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Mail Stop T-7J9, Washington, DC 20555. Incidents and events that require telephone notification shall be made to the NRC Operations Center at (301) 816-5100.
- 9.3 The licensee shall conduct operations in accordance with all commitments, representations, and statements made in its license application submitted by cover letter dated April 25, 1988 (as supplemented by the licensee submittals listed in Attachment A), and in the Crownpoint Uranium Project Consolidated Operations Plan (COP), Rev. 2.0, dated August 15, 1997 - except where superseded by license conditions contained in this license. Whenever the licensee uses the words "will" or "shall" in the aforementioned licensee documents, it denotes an enforceable license requirement.
- 9.4 A) The licensee may, without prior NRC review or approval: (i) make changes in the Crownpoint Project's facilities or processes as described in the COP (Rev. 2.0); (ii) make changes in its standard operating procedures; and (iii) conduct tests or experiments, if the licensee ensures that the following conditions are met:
  - (1) the change, test, or experiment does not conflict with any requirement specifically stated in this license, or impair the licensee's ability to meet all applicable NRC regulations;



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- (2) there is no degradation in the safety or environmental commitments made in the Crownpoint Uranium Project Consolidated Operations Plan (COP), Revision 2.0, or in the approved reclamation plan for the Crownpoint Project; and
- (3) the change, test, or experiment is consistent with NRC's findings in NUREG-1508, the Final Environmental Impact Statement (FEIS, dated February 1997) and the Safety Evaluation Report (SER, dated December 1997) for the Crownpoint Project.

If any of these conditions are not met for the change, test, or experiment under consideration, the licensee is required to submit a license amendment application for NRC review and approval. The licensee's determinations as to whether the above conditions are met will be made by a Safety and Environmental Review Panel (SERP). All such determinations shall be documented, and the records kept until license termination. All such determinations shall be reported annually to the NRC, pursuant to LC 12.8. The retained records shall include written safety and environmental evaluations, made by the SERP, that provide the basis for determining whether or not the conditions are met.

- 8) The SERP shall consist of a minimum of three individuals employed by the licensee, and one of these shall be designated the SERP chairman. One member of the SERP shall have expertise in management and shall be responsible for managerial and financial approval changes; one member shall have expertise in operations and/or construction and shall have responsibility for implementing any operational changes; and, one member shall be the Environmental Manager, with the responsibility of ensuring that changes conform to radiation safety and environmental requirements. Additional members may be included in the SERP as appropriate, to address technical aspects such as health physics, groundwater hydrology, surface-water hydrology, specific earth sciences, and other technical disciplines. Temporary members or permanent members, other than the three above-specified individuals, may be consultants.

9.5

As a prerequisite to operating under this license, the licensee shall submit an NRC-approved surety arrangement to cover the estimated costs of decommissioning, reclamation, and groundwater restoration. Generally, these surety amounts shall be determined by the NRC based on cost estimates for a third party completing the work in case the licensee defaults. Surety for groundwater restoration of the initial well fields shall be based on 9 pore-volumes. Surety shall be maintained at this level until the number of pore volumes required to restore the groundwater quality of a production-scale well field has been established by the restoration demonstration described in LC 10.28. If at any time it is found that well field restoration requires greater pore-volumes or higher restoration costs, the value of the surety will be adjusted upwards. Upon NRC approval, the licensee shall maintain the NRC-approved financial surety arrangement consistent with 10 CFR Part 40, Appendix A, Criterion 9.

Annual updates to the surety amount, required by 10 CFR Part 40, Appendix A, Criterion 9, shall be provided to the NRC at least 3 months prior to the anniversary date of the license issuance. If the NRC has not approved a proposed revision 30 days prior to the expiration date of the existing surety arrangement, the licensee shall extend the existing arrangement, prior to expiration, for 1 year. Along with each proposed revision or annual update of the surety the licensee shall submit supporting documentation showing a breakdown of the costs and the basis for the cost estimates with adjustments for inflation (i.e., using the approved Urban Consumer Price Index), maintenance of a minimum 15 percent contingency, changes in engineering plans, activities performed, and any other conditions affecting estimated costs for site closure.



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The licensee shall provide an NRC-approved updated surety before undertaking any planned expansion or operational change which has not been included in the annual surety update. This surety update shall be provided to the NRC at least 90 days prior to the commencement of the planned expansion or operational change.

The licensee shall also provide the NRC with copies of surety-related correspondence submitted to the State of New Mexico, a copy of the State's surety review, and the final approved surety arrangement. The licensee must also ensure that the surety, where authorized to be held by the State, identifies the NRC-related portion of the surety and covers the above-ground decommissioning and decontamination, the cost of off-site disposal, soil and water sample analyses, and groundwater restoration activities associated with the site. The basis for the cost estimate is the NRC-approved site closure plan or the NRC-approved revisions to the plan.

- 9.6 The licensee shall dispose of 11e.(2) byproduct material from the Crownpoint Project at a waste disposal site licensed by the NRC or an Agreement State to receive 11e.(2) byproduct material. At each project site, the licensee shall maintain an area within the restricted area boundary for storing contaminated materials prior to their disposal. The licensee's approved waste disposal agreement must be maintained on-site. Should this agreement expire or be terminated, the licensee shall notify the NRC pursuant to LC 12.6. A new agreement shall be ratified within 90 days of expiration or termination of the previous agreement, or the licensee will be prohibited from further lixiviant injection.
- 9.7 The licensee shall implement and maintain a training program for all site employees as described in Regulatory Guide 8.31, and as detailed in the COP of the approved license application. All training materials shall incorporate the information from current versions of 10 CFR Part 19 and 10 CFR Part 20. Additionally, classroom training shall include the subjects described in Section 2.5 of Regulatory Guide 8.31. All personnel shall attend annual refresher training, and the licensee shall conduct regular safety meetings on at least a bi-monthly basis, as described in Section 2.5 of Regulatory Guide 8.31.
- The Radiation Safety Officer (RSO), or his designee, shall have the education, training and experience as specified in Regulatory Guide 8.31. A Radiation Safety Technician (RST) shall have the qualifications specified in Regulatory Guide 8.31. Any person newly hired as an RST shall have all work reviewed and approved by the RSO as part of a comprehensive training program until appropriate course training is completed, and at least for 6 months from the date of appointment.
- 9.8 Written standard operating procedures (SOPs) shall be established and followed for: (1) all operational activities involving radioactive materials that are handled, processed, stored, or transported by employees; (2) all non-operational activities involving radioactive materials including in-plant radiation protection and environmental monitoring; and (3) emergency procedures for potential accident/unusual occurrences including significant equipment or facility damage, pipe breaks and spills, loss or theft of yellowcake or sealed sources, and significant fires. The SOPs shall include appropriate radiation safety practices to be followed in accordance with 10 CFR Part 20. SOPs for operational activities shall enumerate pertinent radiation safety practices to be followed. A copy of the current written procedures shall be kept in the area(s) of the production facility where they are utilized. All SOPs for activities described in the COP shall be reviewed and approved as presently described in the COP.
- 9.9 Release of equipment, materials, or packages from the restricted area shall be in accordance with NRC staff position, "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct or Source Materials."

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dated May 1987, or suitable alternative procedures approved by the NRC prior to any such release.

9.10 Any corporate organization changes affecting the assignments or reporting responsibilities of the radiation safety staff as described in the COP of the approved license application shall conform to Regulatory Guide 8.31.

9.11 The licensee is hereby exempted from the requirements of 10 CFR Section 20.1902(e) for areas within the process facility, provided that all entrances to the facility are conspicuously posted in accordance with Section 20.1902(e), and with the words, "ANY AREA WITHIN THIS FACILITY MAY CONTAIN RADIOACTIVE MATERIAL."

9.12 Before engaging in any construction activity not previously assessed by the NRC, the licensee shall conduct a cultural resource inventory. All disturbances associated with the proposed development will be completed in compliance with the National Historic Preservation Act of 1966, as amended, and its implementing regulations (36 CFR Part 800), and the Archaeological Resources Protection Act of 1979, as amended, and its implementing regulations (43 CFR Part 7).

In order to ensure that no unapproved disturbance of cultural resources occurs, any work resulting in the discovery of previously unknown cultural artifacts shall cease. The artifacts shall be inventoried and evaluated in accordance with 36 CFR Part 800, and no disturbance shall occur until the licensee has received written authorization to proceed from the State and Navajo Nation Historic Preservation Offices.

9.13 Prior to injection of lixiviant, the licensee shall have all applicable Memoranda of Agreements (MOAs) between the licensee and local authorities, the fire department, medical facilities, and other emergency services, ratified and in effect. At a minimum, the MOAs shall identify individual party responsibilities, coordination requirements, and reporting procedures for all emergency incident responses.

9.14 Prior to injection of lixiviant, the licensee shall obtain all necessary permits and licenses from the appropriate regulatory authorities.

**SECTION 10: OPERATIONS, CONTROLS, LIMITS, AND RESTRICTIONS**

10.1 The licensee shall use a lixiviant composed of native ground water, carbon dioxide gas or sodium bicarbonate, and dissolved oxygen or air, as specified in the COP of the approved license application.

10.2 The processing plant flow rate at each site (Church Rock, Unit 1, or Crownpoint) shall not exceed 4000 gal/min (15,140 L/min), exclusive of restoration flow. Total yellowcake production from all three sites shall not exceed 3 million lbs (1.36 million kg) annually.

10.3 Injection well operating pressures shall be maintained at less than formation fracture pressures, and shall not exceed the well's mechanical integrity test pressure.

10.4 Only steel or fiber glass well casing shall be used at the Unit 1 and Crownpoint sites for all wells completed into the Dakota Sandstone, Westwater Canyon, and Cow Springs aquifers.

10.5 A leak detection monitoring system shall be installed for all retention ponds. The licensee shall measure and document pond freeboard and fluid levels in the leak detection system daily, including weekends and holidays. If fluid levels greater than 6 in (15.2 cm) are detected

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in the leak detection sumps, the fluid in the sumps shall be sampled and analyzed for specific conductance and chloride. Elevated levels of these parameters shall confirm a retention pond liner leak, at which time the licensee shall take the following corrective actions: (a) analyze standpipe water quality samples for leak parameters once every 7 days during the leak period, and once every 7 days for at least 14 days following repairs; and (b) locate and repair the area of liner damage. After a confirmed leak, the licensee shall also file a report pursuant to LC 12.2. At all times, sufficient reserve capacity shall be maintained in the retention pond system to enable transferring the contents of one pond to the other ponds. In the event of a leak and subsequent transfer of liquid, the freeboard requirements may be suspended during the repair period.

- 10.6 At the Crownpoint site, from initial lixiviant injection through the completion of groundwater restoration activities, the licensee shall at all times maintain sufficient emergency generator capacity to provide a 50 gal/min (189 L/min) bleed from the Westwater Canyon aquifer. The licensee shall document all required uses of the emergency generator, pursuant to LC 11.1.
- 10.7 Liquid oxygen tanks shall be located within the well fields. Other chemical storage tanks shall be located on the concrete pad near a waste retention pond. All yellowcake shall be stored inside the designated restricted area.
- 10.8 For all required types of surveys, the licensee shall, at a minimum, use the survey locations, frequencies, and lower limits of detection established in Table 2 of Regulatory Guide 8.30. Additionally, all radiation survey instruments shall be operationally checked in conformance with Regulatory Guide 8.30.
- 10.9 The licensee shall ensure that the manufacturer-recommended vacuum pressure is maintained in the drying chamber during all periods of yellowcake drying operations. This shall be accomplished by continuously monitoring differential pressure and installing instrumentation which will signal an audible alarm if the air pressure differential falls below the manufacturer's recommended levels. The alarm's operability shall be checked and documented daily. Additionally, yellowcake drying operations shall be immediately suspended if any emission control equipment for the yellowcake drying or packaging areas is not operating within specifications for design performance.
- 10.10 All liquid effluents from process buildings and other process waste streams, with the exception of sanitary wastes, shall be disposed of in accordance with the requirements of 10 CFR Part 20, Subpart K.
- 10.11 Within restricted areas, eating shall be allowed only in designated eating areas.
- 10.12 An excursion shall have occurred if, in any monitor well: (a) any two upper control limit parameters exceed their respective upper control limits; or (b) a single upper control limit parameter exceeds its upper control limit by 20 percent. A verification sample shall be taken within 24 hours after results of the first analyses are received. If the second sample shows that either of the excursion criteria in (a) or (b) are present, an excursion shall be confirmed. If the second sample does not show that the excursion criteria in (a) or (b) are present, a third sample shall be taken within 48 hours after the second set of sampling data was acquired. If the third sample shows that either of the excursion criteria in (a) or (b) are present, an excursion shall be confirmed. If the third sample does not show that the excursion criteria in (a) or (b) are present, the first sample shall be considered to be an error.
- 10.13 If an excursion is not corrected within 60 days of confirmation, the licensee shall either: (a) terminate injection of lixiviant within the well field until aquifer cleanup is complete; or (b)

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increase the surety in an amount to cover the full third-party cost of correcting and cleaning up the excursion. The surety increase for horizontal and vertical excursions shall be calculated using the method described on page 4-22, Section 4.3.1 of the FEIS. The surety increase shall remain in force until the NRC has verified that the excursion has been corrected and cleaned up. The written 60-day excursion report, filed pursuant to LC 12.1, shall identify which course of action [(a) or (b) listed above] the licensee is taking.

- 10.14 At the Unit 1 or Crownpoint sites, if a vertical excursion is confirmed in the Dakota Sandstone aquifer, the licensee shall complete and sample monitor wells to determine if the vertical excursion has impacted any other overlying aquifers that could sustain yields greater than 150 gal/day (568 L/day). The specific aquifers to be monitored shall be identified in the licensee's 60-day excursion report, filed pursuant to LC 12.1.
- 10.15 At the Crownpoint site, from initial lixiviant injection through the completion of groundwater restoration activities, the licensee shall maintain a continuous bleed (pumping) until the groundwater quality in the well fields has been determined by the NRC to be fully restored to the required limits established pursuant to LC 10.21.
- 10.16 During groundwater restoration activities at production-scale well fields within either the Unit 1 or Crownpoint sites, the licensee shall reimburse the operators of the Crownpoint water supply wells for any increased pumping and well work-over costs associated with a drop in water levels due to groundwater restoration activities. This reimbursement requirement does not apply to restoration demonstrations of small-scale well fields.
- 10.17 Prior to injection of lixiviant in a well field, monitor wells shall be completed in the Westwater Canyon aquifer and shall encircle the well field at a distance of 400 ft (122 m) from the edge of the production or injection wells and 400 ft (122 m) between each monitor well. The angle formed by lines drawn from any production well to the two nearest monitor wells shall not exceed 75 degrees. At the Church Rock site, Westwater Canyon aquifer monitor wells shall be located by treating production mine workings as if they were injection or production wells. Sampling frequencies for all monitor wells completed in the Westwater Canyon aquifer shall be as stated in LC 11.3.
- 10.18 Prior to injection of lixiviant in a well field at the Unit 1 or Crownpoint sites, monitor wells shall be completed in the Dakota Sandstone aquifer. Such wells shall be placed at a minimum density of one well per 4 acres (1.62 ha) of well field. Sampling frequencies for these wells shall be as stated in LC 11.3.
- 10.19 Prior to injection of lixiviant at the Unit 1 site, the licensee shall complete a minimum of three monitor wells in the overlying Dakota Sandstone aquifer between the well fields and the town of Crownpoint water supply wells, in addition to the wells required by LC 10.18. Groundwater restoration goals and upper control limits for these wells will be established pursuant to LCs 10.21 and 10.22, except that upper control limits shall be established for these wells on a well-by-well basis. Sampling frequencies for these wells shall be as stated in LC 11.3.
- 10.20 Prior to injection of lixiviant in a well field at the Church Rock site, monitor wells shall be completed in: (a) the Brushy Basin "B" sand aquifer; and (b) the Dakota Sandstone aquifer. Monitor wells completed in the Brushy Basin "B" sand aquifer shall be placed at a minimum density of one well per 4 acres (1.62 ha) of well field. Monitor wells completed in the Dakota sandstone aquifer shall be placed at a minimum density of one well per 8 acres (3.24 ha) of well field. Any openings of the existing mine workings into the Brushy Basin "B" sand, or Dakota Sandstone aquifers, shall be monitored by Brushy Basin "B" sand or Dakota Sandstone monitor wells placed within 40 ft (12 m) of the openings. These wells shall be

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placed down-gradient from the openings. Sampling frequencies for all monitor wells completed in the Brushy Basin and Dakota Sandstone aquifers shall be as stated in LC 11.3.

10.21

Lixiviant shall not be injected into a well field before groundwater quality data is collected and analyzed to establish groundwater restoration goals for each monitored aquifer of the well field, as follows:

- A) The licensee shall establish groundwater restoration goals by analyzing three independently-collected groundwater samples of formation water from: (1) each monitor well in the well field; and (2) a minimum of one production/injection well per acre of well field. Samples shall be collected a minimum of 14 days apart from each other. Groundwater restoration goals shall be established on a parameter-by-parameter basis, with the primary restoration goal to return all parameters to average pre-lixiviant injection conditions. If groundwater quality parameters cannot be returned to average pre-lixiviant injection levels, the secondary goal shall be to return groundwater quality to the maximum concentration limits as specified in the U.S. Environmental Protection Agency (EPA) secondary and primary drinking water regulations. The secondary restoration goal for barium and fluoride shall be set to the State of New Mexico primary drinking water standard. The secondary restoration goal for uranium shall be 0.44 mg/L (300 pCi/L).
- B) In establishing restoration goals, the following parameters shall be measured: alkalinity, ammonium, arsenic, barium, bicarbonate, boron, cadmium, calcium, carbonate, chloride, chromium, copper, fluoride, electrical conductivity, iron, lead, magnesium, manganese, mercury, molybdenum, nickel, nitrate, pH, potassium, combined radium-226 and radium-228, selenium, sodium, silver, sulfate, total dissolved solids, uranium, vanadium, zinc, gross Beta, and gross Alpha (excluding radon, uranium, and radium). The restoration goal for each of these parameters shall be established by calculating the baseline mean of the data collected. Prior to calculating a groundwater restoration goal for a parameter, outliers shall be eliminated using methods consistent with those specified in EPA's 1989, "Statistical Analysis of Ground-Water Monitoring Data at RCRA [Resource Conservation and Recovery Act]-Facilities, Interim Guidance." Parameter concentrations determined to be high or low outliers will not be used in establishing groundwater restoration goals.

10.22

Lixiviant shall not be injected into a well field before groundwater quality data is collected and analyzed to establish upper control limits for each monitored aquifer of the well field, as follows:

- A) The licensee shall analyze three independently-collected groundwater samples of formation water from each monitor well in the well field. Samples shall be collected a minimum of 14 days apart from each other.
- B) The upper control limit parameters shall be chloride, bicarbonate, and electrical conductivity [corrected to a temperature of 25°C (77°F)]. The concentrations of these upper control limit parameters shall be established for each well field by calculating the baseline mean of the upper control limit parameter concentration, and adding 5 standard deviations. Prior to calculating upper control limits, outliers shall be eliminated using methods consistent with those specified in EPA's 1989, "Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities, Interim Guidance". Values determined to be high and low outliers will not be used in the calculation of upper control limits.

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- 10.23 Prior to injection of lixiviant in a well field, groundwater pump tests shall be performed to determine if overlying aquitards are adequate confining layers, and to confirm that horizontal monitor wells for that well field are completed in the Westwater Canyon aquifer.
- 10.24 The licensee shall perform mechanical well integrity tests on each injection and production well: (a) before the well is first used for *in situ* leach uranium extraction; (b) after each time the well has been serviced with equipment or otherwise subjected to procedures that could damage well casing; and (c) at least once every 5 years the well is in use. After a well has been completed and opened into the aquifer, a packer shall be set above the well screen and each well casing shall be filled with water. The well shall be pressurized with either air or water to 125 psi (862 kPa) at the land surface, or 25 percent above the expected operating pressure, whichever is greater. A well shall have passed the test if a pressure drop of no more than 10 percent occurred over 30 minutes.
- 10.25 If it is determined that a vertical connection exists in a well field between the Westwater Canyon aquifer and the Cow Springs aquifer, monitor wells will be completed in the Cow Springs aquifer within that well field at a minimum density of one well per 4 acres (1.62 ha) of well field. Groundwater restoration goals and upper control limits will be established for these wells, pursuant to LCs 10.21 and 10.22. Sampling frequencies for all monitor wells completed in the Cow Springs aquifer shall be as stated in LC 11.3.
- 10.26 Prior to injecting lixiviant at a site, or processing licensed material at the Crownpoint site, HRI shall provide and receive NRC acceptance - for that site - information, calculations, and analyses to document the adequacy of the design of waste retention ponds and their associated embankments (if applicable), liners, and hydrologic site characteristics. HRI shall demonstrate that the criteria described in the following documents have been met: 10 CFR Part 40, Appendix A, Criterion 5A regarding surface impoundment design; Regulatory Guide 3.11, "Design, Construction, and Inspection of Embankment Retention Systems for Uranium Mills"; WM-8201, "Hydrologic Design Criteria for Tailings Retention Systems,"; and Final Staff Technical Position, "Design of Erosion Protection Covers for Stabilization of Uranium Mill Tailings Sites." As applicable, based on the designs selected, HRI shall provide information in the following areas:
- A) maps and detailed drawings outlining drainage areas of principal water courses and drainage features at the site;
  - B) drainage basin characteristics, including soil types and characteristics, vegetative cover, local topography, flood plains, geomorphic characteristics, and surficial and bedrock geology;
  - C) maps and detailed drawings showing the location of site features, particularly the location of the retention ponds and diversion channels;
  - D) analyses and calculations for peak flood flows, including the PMF, and documenting the methods and assumptions used to compute the floods;
  - E) analyses and calculations for water surface profiles and velocities associated with the ability of the retention ponds or diversion channels to resist or limit erosion and flooding;
  - F) analyses and computations of riprap or erosion protection needed to protect the retention ponds;

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- G) specific details on the design, construction, maintenance, and operation of the waste retention ponds and embankments (where applicable):
- H) specific details on the design, construction, maintenance, and operation of the liners and leak detection system.
- I) any other analyses and computations which demonstrate that applicable design criteria have been met.

10.27

Prior to the injection of lixiviant at the Crownpoint site, the licensee shall:

- A) Replace the town of Crownpoint's water supply wells NTUA-1, NTUA-2, BIA-3, BIA-5, and BIA-6, construct the necessary water pipeline, and provide funds so the existing water supply systems of the Navajo Tribal Utility Authority (NTUA) and the Bureau of Indian Affairs (BIA) can be connected to the new wells. Any new wells, pumps, pipelines, and other changes to the existing water supply systems, made necessary by the replacement of the wells specified above, shall be made such that the systems can continue to provide at least the same quantity of water as the existing systems. The new wells shall be located so that the water quality at each individual well head does not exceed the EPA's primary and secondary drinking water standards, and does not exceed a concentration of 0.44 mg/L (300 pCi/L) uranium, as a result of *in situ* leach uranium extraction activities at the Unit 1 and Crownpoint sites. To determine the appropriate placement of the new wells, the licensee shall coordinate with the appropriate agencies and regulatory authorities, including BIA, NTUA, the Navajo Nation Department of Water Development and Water Resources, and the Navajo Nation EPA.
- B) Abandon and seal wells NTUA-1, NTUA-2, BIA-3, BIA-5, and BIA-6 in accordance with applicable requirements so these wells cannot become future pathways for the vertical movement of contaminants.

10.28

Prior to the injection of lixiviant at either the Unit 1 or Crownpoint site, the licensee shall submit NRC-approved results of a groundwater restoration demonstration conducted at the Church Rock site. The demonstration shall be conducted on a large enough scale, acceptable to the NRC, to determine the number of pore volumes that shall be required to restore a production-scale well field.

10.29

Before starting uranium extraction operations beyond the first well field at the Church Rock site, the licensee shall submit an NRC-approved groundwater restoration plan for the entire project. At a minimum, this plan shall include: (a) a proposed restoration schedule; (b) a general description of the restoration methodology; and (c) a description of post-restoration groundwater monitoring.

10.30

Prior to injecting lixiviant at any of the sites, the licensee shall submit an NRC-approved procedure-level, detailed effluent and environmental monitoring program. In addition, the licensee shall develop and administer its radiological effluent and environmental monitoring program consistent with Regulatory Guide 4.14. The licensee shall maintain, at a minimum, three airborne effluent monitoring stations at each site, at the locations described in COP (Rev.2.0) Table 9.5-1.

10.31

Prior to the injection of lixiviant at the Church Rock site, the licensee shall conduct a Westwater Canyon aquifer step-rate injection (fracture) test within the Church Rock site boundaries, but outside future well field areas. One such test at the Unit 1 or Crownpoint site shall also be performed before lixiviant injection begins at either of these sites.

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- 10.32 Prior to the injection of lixiviant at any of the sites, the licensee shall: (a) collect sufficient water quality data to generally characterize the water quality of the Cow Springs aquifer beneath each of the project sites, by completing and sampling wells for the following water quality parameters: alkalinity, ammonium, arsenic, barium, bicarbonate, boron, cadmium, calcium, carbonate, chloride, chromium, copper, fluoride, electrical conductivity, iron, lead, magnesium, manganese, mercury, molybdenum, nickel, nitrate, pH, potassium, combined radium-226 and radium-228, selenium, sodium, silver, sulfate, total dissolved solids, uranium, vanadium, zinc, gross Beta and gross Alpha (excluding radon, uranium, and radium); and (b) conduct sufficient pumping tests to determine if the Cow Springs aquifer beneath each of the sites is hydraulically confined from the Westwater Canyon aquifer.

**SECTION 11: MONITORING, RECORDING AND BOOKING REQUIREMENTS**

- 11.1 The results of the following activities, operations, or actions shall be documented: sampling; analyses; surveys or monitoring; survey/ monitoring equipment calibrations; reports on audits and inspections; emergency generator use and maintenance records; all meetings and training courses required by this license; and any subsequent reviews, investigations, or corrective actions. Unless otherwise specified in a license condition or applicable NRC regulation, all documentation required by this license shall be maintained for a period of at least five (5) years by the licensee at its facility, and is subject to NRC review and inspection.
- 11.2 Flow rates on each injection and production well, and injection manifold pressures on the entire system, shall be measured and recorded daily.
- 11.3 Formation water, from monitoring wells at well fields undergoing uranium extraction or groundwater restoration activities, shall be sampled for upper control limit parameters at least once every 14 days, and the results documented pursuant to LC 11.1. During corrective action for a confirmed excursion, sample frequency shall be increased to once every seven days for the upper control limit parameters until the excursion is concluded. An excursion shall be considered corrected when all upper control limit parameters are reduced to their upper control limits.
- 11.4 Radiation Work Permits shall include, at a minimum, the information described in Section 2.2 of Regulatory Guide 8.31.
- 11.5 Site inspections and reviews shall be completed and documented by the licensee as described in Section 2.3.1 and 2.3.2 of Regulatory Guide 8.31.
- 11.6 The licensee shall implement a comprehensive bioassay sampling program that conforms to Regulatory Guide 8.22.
- 11.7 Until license termination, the licensee shall maintain documentation on all spills of source or 11e.(2) byproduct materials, and all spills of process chemicals. Documented information shall include date, volume of spill, total activity, survey results, corrective actions, results of remediation surveys, and a map showing spill location and impacted area. After any spill the licensee shall also determine whether the NRC must be notified, pursuant to LC 12.4.
- 11.8 Prior to land application of waste water, the licensee shall submit and receive NRC acceptance of a plan outlining how the licensee will monitor constituent buildup in soils resulting from the land application. The plan should identify the constituents resulting from land application that will be monitored, constituent threshold values for discontinuing land application and justification for the values selected.



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**SECTION 12: REPORTING REQUIREMENTS**

- 12.1 The licensee shall notify the NRC by telephone within 24 hrs of confirming a lixiviant excursion, and by letter within 7 days from the time the excursion is confirmed, pursuant to LC 10.12. A written report describing the excursion event, corrective actions taken, and the corrective action results shall be submitted to NRC within 60 days of the excursion confirmation. If wells are still on excursion when the report is submitted, the report shall also contain a schedule for submitting additional reports to the NRC describing the excursion event, corrective actions taken, and results obtained. In the case of a confirmed vertical excursion, the report shall also contain a projected completion date for characterization of the extent of the vertical excursion.
- 12.2 The licensee shall notify the NRC by telephone within 48 hours of confirming a retention pond liner leak, pursuant to LC 10.5. A written report shall be submitted to the NRC within 30 days of the leak confirmation. This report shall include analytical data, describe the corrective action taken, and discuss the results of that action.
- 12.3 The licensee shall submit the required effluent reports in accordance with 10 CFR Part 40.65. The licensee shall submit the information specified in Section 7 of Regulatory Guide 4.14, in addition to the reports required by 10 CFR Part 40.65.
- 12.4 The licensee shall notify the NRC by telephone within 48 hours of any spill of source or 11e.(2) byproduct materials, and all spills of process chemicals, that might have a radiological impact on the environment. The notification shall be followed, within 7 days, by submittal of a written report detailing the conditions leading to the spill, corrective actions taken, and results achieved. This shall be done in addition to meeting the requirements of 10 CFR Part 20 and 40.
- 12.5 In addition to reporting exposures of individuals to radioactive material in accordance with 10 CFR Part 20.2202, the licensee shall submit to the NRC a written report within 30 days of such reportable incidents, detailing the conditions leading to the incident, corrective actions taken, and results achieved.
- 12.6 In the event the licensee's approved waste disposal agreement expires or is terminated, the licensee shall notify the NRC in writing within 7 working days after the expiration date.
- 12.7 As part of the licensee's decommissioning activities for a site, the licensee shall submit to the NRC for review and approval a detailed site reclamation plan. The plan shall be submitted at least 12 months prior to the planned final shutdown of uranium extraction operations at the site. If depressions appear at the land surface due to subsurface collapse from *in situ* leach uranium extraction activities, the licensee shall return the land surface to its general contour as part of the surface reclamation activities. Before release of any site to unrestricted use, the licensee shall provide information to the NRC verifying that radionuclide concentrations, due to licensed materials, meet radiation standards for unrestricted release.
- 12.8 The licensee shall provide in an annual report to NRC, a description of all changes, tests, and experiments made or conducted pursuant to LC 9.4, including a summary of the safety and environmental evaluation of each such action. As part of this annual report, the licensee shall include any COP pages revised pursuant to LC 9.4.

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**FOR THE NUCLEAR REGULATORY COMMISSION**

Date: Feb 5, 1998



Joseph J. Holonich, Chief  
Uranium Recovery Branch  
Division of Waste Management  
Office of Nuclear Material Safety  
and Safeguards

**ATTACHMENT A**

The licensee shall conduct its operations in accordance with all commitments, representations, and statements made in the following submittals, which are hereby incorporated by reference, except where superseded by license conditions in this license:

- May 8, 1989 (Crownpoint Facility Supplemental Environmental Report)
- July 13, 1989 (Crownpoint Cultural Resources Survey)
- January 6, 1992 (Unit 1 Allotted Lease Program Environmental Assessment (EA))
- July 31, 1992 (Unit 1 and Crownpoint Project Environmental Reports)
- October 9, 1992 (Unit 1 Underground Injection Control (UIC) Application)
- October 30, 1992 (Cultural Resources-Environmental Assessment and Management Plan for Crownpoint, NM)
- March 16, 1993 (Churchrock Project Revised Environmental Report)
- March 16, 1993 (Section 9 Pilot Summary Report)
- April 5, 1993 (page changes)
- April 6, 1993 (page changes)
- July 26, 1993 (page changes)
- October 11, 1993 (page changes)
- October 18, 1993 (Analysis of Hydrodynamic Control at Crownpoint and Churchrock)
- October 19, 1993 (Churchrock Surface Hydrology Analysis)
- October 19, 1993 (Churchrock and Crownpoint Aquifer Modeling Supplement)
- November 11, 1993 (page changes)
- January 24, 1994 (page changes)
- November 20, 1993 (Response to NRC Request for Additional Information)
- February 23, 1994 (Description of Radon Emission Controls)
- January 6, 1995 (EA Allotted Lease Program Unit 1)
- October 9, 1995 (Unit 1 UIC Application)
- February 20, 1996 (Response to NRC Comments)
- April 10, 1996 (Response to NRC Comments)
- May 3, 1996 (Response to NRC Comments)
- June 18, 1996 (Unit 1 Water Quality Information)
- August 15, 1996 (Response to NRC Comments)
- August 16, 1996 (Response to NRC Comments)
- August 21, 1996 (page changes)
- August 30, 1996 (Response to NRC Comments)
- September 5, 1996 (Surface Water Drainage Analysis at Churchrock)
- September 6, 1996 (page changes)
- September 13, 1996 (Response to NRC Comments)
- September 27, 1996 (Response to NRC Comments)
- September 30, 1996 (Crownpoint Uranium Project COP, Rev. 0.0)
- October 15, 1996 (Response to NRC Comments)
- October 18, 1996 (Restoration Standards Commitment)
- October 20, 1996 (Response to NRC Comments)
- October 29, 1996 (Response to NRC Comments)
- November 18, 1996 (Response to NRC Comments)
- November 26, 1996 (Response to NRC Comments)
- December 20, 1996 (NRC Proposed Requirements and Recommendations)
- December 26, 1996 (HRI Acceptance Letter to NRC Proposed Requirements and Recommendations)
- April 1, 1997 (NRC Proposed Requirements)
- April 25, 1997 (HRI Acceptance Letter to NRC Proposed Requirements)
- May 15, 1997 (Crownpoint Uranium Project COP, Rev 1.0)
- June 16, 1997 (Churchrock Design Specifications for Surface Water Diversion Channel)
- July 9, 1997 (HRI Electric Power Supply Commitment)
- August 18, 1997 (Response to NRC Comments)
- October 24, 1997 (HRI Commitment on Groundwater Baseline Sampling)

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION  
BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:  
E. Roy Hawkins, Presiding Officer  
Richard F. Cole, Special Assistant  
Robin Brett, Special Assistant

In the Matter of:

HYDRO RESOURCES, INC.  
P.O. Box 777  
Crownpoint, New Mexico 87313

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) Docket No. 40-8968-ML  
) ASLBP No. 95-706-01-ML  
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DECLARATION OF THOMAS F. KING

I, Thomas F. King, do hereby swear that the following is true to the best of my knowledge. I am qualified and competent to give this declaration, and the factual statements herein are true and correct to the best of my knowledge, information, and belief. The opinions expressed herein are based on my best professional judgment.

Name and Purpose of Declaration

1. My name is Thomas F. King. My mailing address is Post Office Box 14515, Silver Spring, Maryland 20911. I am giving this declaration on behalf of Marilyn Morris, Grace Sam, Eastern Navajo Diné Against Uranium Mining ("ENDAUM") and Southwest Research and Information Center ("SRIC") related to the licensing of Hydro Resources, Inc.'s ("HRI's") Crownpoint Uranium Project. ("CUP"). In particular, I am testifying on whether the Nuclear Regulatory Commission ("NRC") complied with applicable federal laws relating to cultural resources.



## Professional Qualifications

2. My qualifications to make this declaration are described in my professional resumé, a copy of which is appended hereto as Exhibit 1. I hold a Ph.D in Anthropology from the University of California, Riverside, with an emphasis in archaeology. I am a specialist in what its practitioners in the United States call “cultural resource management” – that is, the management of places, things, and practices thought to have cultural value of some kind, and the impacts of the modern world on such resources, under various Federal, state, local, and Indian tribal laws and regulations.<sup>1</sup>

3. I have worked in applying and implementing the U.S. National Historic Preservation Act, 16 U.S.C. §§ 470 *et. seq.* (NHPA), since shortly after it was enacted in 1966. I have worked with the NHPA as an archaeologist; as organizer of “state” historic preservation programs in the now defunct Trust Territory of the Pacific Islands and the new island nations that succeeded it; as senior staff to the Advisory Council on Historic Preservation (ACHP), established pursuant to 16 U.S.C. § 470i, to oversee certain aspects of NHPA implementation; and as a teacher, writer, and consultant. At the ACHP, my primary job was to coordinate the ACHP’s nationwide oversight of Federal agency compliance with Section 106 of NHPA (16 U.S.C. § 470f). Section 106 requires federal agencies to take into account the effects of their actions on properties included in or eligible for the National Register of Historic Places, a list of significant historic properties maintained by the National Park Service. Section 106 is implemented by following regulations at 36 CFR 800, with whose development and interpretation I have been

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<sup>1</sup> The term “cultural resource,” though widely used by practitioners, is not defined in law. See Thomas F. King, *Cultural Resource Laws and Practice* (2d ed. 2004), for discussion of the term’s varied meanings and relevant statutory authorities.

intimately involved for the last 30 years. I was one of the primary staff authors of the 36 CFR 800 regulations promulgated by the ACHP in 1986, which were in force at the time the NRC staff began compliance with Section 106, and was heavily involved as a commenter on the development of the regulations promulgated in 1999, 2000-2001, and 2004, which are in force today. I am the author of four recent textbooks dealing with cultural resource management, as well as many journal articles and government regulations and guidelines. I teach short courses on NHPA and related cultural resource management topics for SWCA Environmental Consultants; I previously taught such courses for the National Preservation Institute, University of Nevada, Reno, Advisory Council on Historic Preservation, U.S. General Services Administration, and U.S. Department of Defense. I am the co-author of National Register Bulletin 38, a publication of the National Register of Historic Places providing guidance on the eligibility of "traditional cultural properties" for the National Register. *See* U.S. Dep't of the Interior, Nat'l Park Service, Guidelines for Evaluating and Documenting Traditional Cultural Properties, Nat'l Register Bulletin 38 (1998) ("National Register Bulletin 38"). I also participated in drafting the Secretary of the Interior's guidelines for NHPA historic preservation programs. *See* The Secretary of the Interior's Standards and Guidelines for Federal Agency Historic Preservation Programs Pursuant to the National Historic Preservation Act, 63 Fed. Reg. 20495 (Apr. 24, 1998) ("Secretary of the Interior's Standards").

4. I have also worked extensively with the National Environmental Policy Act (42 USC 4321-4347)(NEPA) and the implementing regulations of the Council on Environmental Quality (40 CFR 15000-1508). I was a litigant in *Warm Springs Dam*

*Task Force v. Gribble* (378 F. Supp. 240 (N.D. Cal. 1974), a case brought under both NHPA and NEPA. Subsequently, as an employee of the National Park Service, I was involved in the review of many Environmental Impact Statements (EISs) and Environmental Assessments (EAs) prepared under NEPA. At the Advisory Council on Historic Preservation my work routinely involved review of such documents, and I interacted frequently with the Council on Environmental Quality at a policy level. After leaving the Advisory Council I was employed for several years by the U.S. General Services Administration, where among other functions I oversaw the rewriting of that agency's NEPA procedures. I subsequently assisted the U.S. Department of Agriculture, Farm Service Agency, in reworking its NEPA procedures (which remain in the process of internal review). I regularly teach about NEPA, Environmental Justice, and cultural resources in my classes for SWCA and other organizations.

5. In the last five years, I have provided testimony in state and federal litigation under NEPA and NHPA in Hawaii, Washington State, and California; I am currently an expert witness for the plaintiffs in *Okinawa Dugong v. Rumsfeld* (ND Cal., C-03-4350), a case filed under Section 402 of NHPA, the international equivalent of Section 106.

6. I have worked in the Southwest repeatedly over the years as an Advisory Council employee, as a trainer in Section 106, NEPA, and related topics for SWCA, the National Preservation Institute, and the New Mexico State Historic Preservation Officer, and as a consultant to the U.S. Department of the Interior, Bureau of Reclamation and to the Navajo Nation Historic Preservation Department.

7. In preparing this declaration I have reviewed the following:

a. Relevant portions of the NRC's *Final Environment Impact Statement ("FEIS") to Construct and Operate the Crownpoint Uranium Project, McKinley County, New Mexico*, NUREG-1508 (February 1997) (ACN 9703200270, NB 9.10). In particular, I reviewed the "cultural resources" and "environmental justice" sections of the "affected environment" chapter. I also reviewed the "cultural resources" section of the "environmental consequences, monitoring, and mitigation" chapter, Appendix A: "response to comments" concerning "cultural resources" (Sec. A-13), and Appendix C entitled "Section 106 Historic Preservation Act Consultation".

b. The September 15, 1992 document entitled *A Cultural Resources Environmental Assessment and Management Plan for the Proposed Hydro Resources, Inc. Crownpoint Lease in the Eastern Navajo District, New Mexico*, by Cibola Research Consultants (ACN 9610070106, NB 9.10).

c. The 1997 document entitled *Cultural Resources Inventory of Proposed Uranium Solution Extraction and Monitoring Facilities at the Church Rock Site and of Proposed Surface Irrigation Facilities North of the Crownpoint Site, McKinley County, New Mexico*, by Eric Blinman and others for the Office of Archaeological Studies, Museum of New Mexico (ACN 9704140140, NB 10.1).

d. The report entitled "Report on Sacred and Traditional Places for Hydro Resources Inc." by Earnest C. Becenti, Sr., transmitted to Uranium Resources Inc. by Mr. Becenti on February 14, 1996 (ACN 9603110358, NB 9.1).

e. An April 30, 1996 letter report from Lorraine Heartfield of Stratigraphic Services S.A. to Mark Pelizza of HRI, regarding consultation with



the Navajo Nation Historic Preservation Department, New Mexico State Historic Preservation Officer (SHPO), and Pueblos of Acoma, Hopi, Laguna and Zuni (ACN 9605080097, NB 9.8).

f. Responses to Additional Information Requests #22, 23 & 24, which I take to be HRI, Inc. responses to requests by NRC staff (ACN 9602220389, NB 9).

g. An undated and unattributed 12-page document entitled "HRI, Inc. Crownpoint Project Cultural Resource Management Plan." (ACN 99605220200, NB 9.8).

h. The Partial Initial Decision of the Atomic Safety and Licensing Board Panel in this case, issued February 19, 1999 (Partial Initial Decision), LBP-99-9, 49 NRC 136 (1999).

i. Various pieces of correspondence between HRI, Inc. and the Navajo Nation Historic Preservation Department, All Indian Pueblo Council, and Pueblos of Acoma, Hopi, Laguna, and Zuni.

#### Professional Opinion and Analysis

8. Based on the above material and on my background knowledge, it is my opinion that NRC has not complied with Section 106 of the National Historic Preservation Act and its implementing regulations (36 CFR 800), and that it has not complied with the requirements of the National Environmental Policy Act and its implementing regulations (40 CFR 1500-1508) as they pertain to cultural resources.

#### Compliance with Section 106 of the National Historic Preservation Act.

9. Section 106 of the National Historic Preservation Act (NHPA) requires

that federal agencies take into account the effects of their undertakings on places included in or eligible for inclusion in the National Register of Historic Places (National Register). The regulations implementing Section 106 make it clear that this is to be initiated early in planning for any federal undertaking, and that it should be coordinated with compliance with the National Environmental Policy Act (NEPA). 36 CFR 800.1(a), 1(c), 8(a)(1).

10. Section 106 review begins with consultation between the responsible federal agency (in this case NRC) and the SHPO, tribes, and other interested parties, together with planning for public involvement. Consultation results in establishing the scope of identification work, including establishing the area (or areas) of potential effects within which identification will take place, and defining what kinds of work will be done to identify historic properties and effects (direct, indirect, and cumulative) on them.

Identification and effect determination work is then done, leading to a determination as to whether adverse effects are likely to occur. If such effects are likely, consultation continues to seek ways to resolve them, leading either to a Memorandum of Agreement outlining measures to avoid, minimize or mitigate such effects or to a comment by the Advisory Council on Historic Preservation. If a Memorandum of Agreement is executed, it is implemented as the project proceeds (or does not proceed). If a Council comment is rendered, it is considered by the agency head before a decision is made about whether and/or how to proceed with the undertaking. 36 CFR 800.3-7.

11. In this case, while compliance with Section 106 has been initiated through consultation with the SHPO and tribes and through the conduct of some identification studies, it has not been carried very far along toward completion. I see at least the following deficiencies in Section 106 compliance as documented:

12. Consultation has been initiated with the SHPO and some tribes, but in several cases has gone no further than the transmittal of formletters asking tribes to reveal the locations of traditional cultural properties – a manifestly ineffective and patently insulting approach, almost guaranteed to achieve nothing.

13. I see no evidence of planning for public participation, or of consultation with interested parties besides the SHPO and tribes.

14. I see no evidence that an area (or areas) of potential effects has been clearly defined. There are implications of thinking about the extent of various kinds of impacts, but no real delineation of an area or areas of potential effects.

15. Identification of historic properties has been initiated, but has not been completed.

16. Identification seems to have overwhelmingly focused on areas where direct, physical ground disturbance will occur, with only marginal consideration of less direct visual and other off-site effects.

17. Although an effort has been made to identify traditional cultural properties (that is, places significant for the role they play in the continuing, tradition-based life of communities), this effort seems to have been almost entirely focused on places important to Navajo traditional people. Besides a certain amount of correspondence, including the counterproductive formletters alluded to above, I see little evidence that anyone from Acoma, Hopi, Laguna, or Zuni has been consulted about traditional cultural properties.

18. Identification of traditional cultural properties seems to have focused almost entirely on areas that will be physically disturbed, despite the fact that in many cases it is visual, auditory, or olfactory effects, or even simply the existence of a modern facility in

the vicinity, that are of great importance to the people who value such properties. The Navajo expert responsible for the traditional cultural property study seems implicitly to have equated the area of potential effects entirely with the area in which ground disturbance is likely.

19. Particularly notable for its absence is consideration of the traditional cultural significance of the many “archaeological” sites identified within and near the project sites. At least Hopi and Zuni have often asserted that all such sites represent the footprints of their ancestors and are regarded by them as culturally significant, yet these sites are evaluated almost solely in terms of their potential for archaeological research.

20. Although NRC is reported in the 1999 Partial Initial Decision to have made various findings of “no effect” with regard to historic properties, (See Partial Initial Decision page 8), the rationale for any such determination is at best unclear, considering the number of “archaeological” sites documented in the area and the incomplete nature of the identification effort. Any such determination would have to have been grounded on the assumption that effects would be “avoided” through the physical avoidance of archaeological sites – both those currently known and those to be found in the future, an assumption that may (or may not) be justified with respect to the research significance of archaeological sites, but has little or no relevance to traditional cultural properties or to the traditional significance of archaeological sites themselves. Be this as it may, I see no evidence of a determination by NRC as to whether the overall project or the elements of the project currently under review (as opposed to those considered in the Partial Initial Decision) will or will not have adverse effects on historic properties, as required at 36 CFR 800.5(a).

21. 36 CFR 800.5(a)(1) says that an undertaking must be found to have an adverse effect on historic properties if it “*may* alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling or association” (emphasis added). Use of the word “*may*” clearly indicates that when there is uncertainty about whether an undertaking will alter a property’s relevant characteristics, the agency is to make a finding of “adverse effect” and proceed to consult about how to resolve such effect. In a situation where one has not completed identification, is not sure what historic properties exist in an area, but proposes to take care of whatever exists through some sort of future identification and avoidance, it surpasses credibility that one would not have to conclude that some alteration of historic properties *may* occur. However, I find no evidence that NRC has made *any* determinations of adverse effect with regard to this project and no evidence that either the SHPO or the tribes have concurred in findings of either no adverse effect on historic properties (36 CFR 800.5(b), (c)) or adverse effect (36 CFR 800.5(d)(2)). As noted, they are reported to have concurred in the puzzling determinations of “no effect” documented in the Partial Initial Decision.

22. In view of the above, it goes without saying that I see no evidence that NRC has notified the Advisory Council on Historic Preservation as required at 36 CFR 800.6(a)(1), or continued consultation to seek ways to resolve adverse effects as required at 36 CFR 800.6(a).

23. Equally expectably, there is no evidence of a Memorandum of Agreement developed in accordance with 36 CFR 800.6(b) and (c). There is also no evidence of an

Advisory Council comment rendered and considered in accordance with 36 CFR 800.7. Nor is there evidence of a Programmatic Agreement or any other “program alternative” developed in accordance with 36 CFR 800.14.

24. In essence, what NRC appears to do is to treat Section 106 review as a sort of mitigation measure that it promises to undertake *after* issuing the license for the undertaking. The implication of the discussion of environmental consequences on page 4-110 of the FEIS is that because “cultural resources” (sic: this seems to mean “archaeological sites” to the FEIS authors) will be “avoided,” there will be no (or little) adverse effect, and that should “subsurface artifacts or unmarked graves...be discovered,” some kind of post-facto compliance with the National Historic Preservation Act and six other Federal and Navajo Nation laws and policies will take care of them. The reader is asked, in other words, to accept the premise that there will be little or no impact on historic properties based on the promise that should any such impacts be subsequently identified, they will be taken care of through post-hoc attention to laws with which NRC has thus far failed to comply.

25. The problem here is more than a technical one – that NRC has failed to comply with the Section 106 regulations. Substantive problems include:

26. Failure to consider seriously anything but physical effects, within the boundaries of the project sites.

27. Failure to consider the non-archaeological values of the “archaeological” sites, impacts on which may or may not be avoided, minimized, or mitigated by “avoiding” the sites.

28. Failure to consult with the full range of parties who may be concerned about effects – notably with the Pueblos of Acoma, Hopi, Laguna, and Zuni.

29. Assuming that post-facto compliance with Section 106 – an authority explicitly designed to be a pre-decisional planning tool – will automatically eliminate adverse effects on historic properties.

30. The problems with NRC's compliance with Section 106 are compounded by its focus on the first five years of HRI's license term. Although the license covers an area planned for development over a 20-year period, NRC has apparently undertaken its curious approach to Section 106 compliance only with reference to lands subject to disturbance in the first five years. The only stated rationale I can find for this limitation is the statement in Appendix C to the FEIS, the letter of October 2, 1996 from Daniel Gillen to the SHPO, that "NMSHPO has expressed a preference for evaluating this project incrementally." (ACN 9703200270, NB 10). While this incremental approach may or may not have in fact been the SHPO's preference, pursuing it inevitably made it impossible for NRC to consider the full effects of the licensed project. I do not know what percentage of the total area subject to physical impact over the 20 year development life of the project is represented by the area actually inspected by HRI's archaeological survey teams and Mr. Becenti, the Navajo elder engaged to identify traditionally important sites, but it is only that percentage of the total area subject to physical effect, not the entire area, that has been the subject of any kind of effect characterization at all. This problem is exacerbated by NRC's division of even the short-term impact area into three parts – Crownpoint, Unit 1, and Church Rock – which have been processed more or less separately.

In simplest terms:

31. There is logically a large area of potential effects, embracing all areas where all kinds of direct and indirect project effects on all kinds of historic properties are possible as a result of the overall project. This area should be the focus of Section 106 review, but NRC has not even defined this area.

32. There is a smaller area within the larger one, within which direct physical effects may occur over the 20 year development of the project. This area has not been fully studied to identify project effects.

33. There is a still smaller area within the 20-year development area – the five-year project area – that has been subjected to incomplete archaeological survey and some study to identify traditional cultural properties subject to direct physical effects, but Section 106 review has not been completed even on this limited range of effects within this limited area, except through the questionable “no effect” finding referred to in the Partial Initial Decision with respect to some portions of the five-year project area.

34. This is not to say that it is impossible or invariably inappropriate to address Section 106 compliance in some sort of “phased” or incremental manner. Indeed, on large and complex projects, where there are many uncertainties about long-term effects, some sort of phased approach to compliance is often necessary. But a phased approach that fails to fulfill the explicit requirement of Section 106 cannot be appropriate. One cannot have “taken into account” the effects of the proposed Federal action if one has not even considered most of such effects.

35. I am aware that the 1999 Partial Initial Finding held that NRC’s phased approach to compliance was appropriate with respect to work in Section 8, and cited the



opinions of the New Mexico SHPO and Navajo Nation Historic Preservation Department in doing so. I suggest that this Partial Initial Finding should be reconsidered, for the following reasons.

36. In 1992 Congress enacted significant amendments to the National Historic Preservation Act. Among these revisions were changes in Section 110 of the Act, which outlines various Federal agency responsibilities. At Section 110(a)(2)(E), the law was amended to create substantive requirements that a Federal agency's program to comply with Section 106 must meet. At Section 101(d)(6), the law was amended to clarify and specify the roles of Indian tribes under the Act, including the Section 106 process. In response to these amendments, the ACHP undertook an exhaustive public review process leading it to extensively amend the Section 106 regulations. The revised regulations were published in June of 1999, four months after the Panel issued its Partial Initial Finding. A period of uncertainty followed as the regulations were challenged in court, and further changes were made in 2001 and 2004. The 2004 regulations, which now govern the Section 106 process, differ in some key ways from those in force at the time of the Panel's Partial Initial Finding.

37. Most notably, the revised regulations replaced 36 CFR 800.3(c), which included the only passing reference to "phased" compliance in the regulations while leaving the term open to interpretation, with a much more elaborate discussion of "phased identification and evaluation" at 36 CFR 800.4(b)(2). Section 4(b)(2) allows phased identification and evaluation where the actions under review "consist of corridors or large land areas, or where access to properties is restricted." An agency may "defer final identification and evaluation of historic properties," but only if it is "specifically provided

for” in a Memorandum of Agreement, a programmatic agreement, or NEPA documents, and in the case of the last, such NEPA documents must have been developed in accordance with Section 800.8, which goes into considerable detail about NEPA/Section 106 coordination. Section 4(b)(2) goes on to lay out standards for the process of phased identification and evaluation. Such a process should “establish the likely presence of historic properties within the area of potential effects for each alternative or inaccessible area...” and then be completed as alternatives are refined or access is granted.

38. Although I was not employed by the ACHP at the time the regulations were rewritten in the late 1990s and early 2000s, I commented extensively on drafts and discussed the regulations frequently with ACHP staff. It is my considered opinion that the discussion of “phased identification and evaluation” was elaborated as it was because the ACHP recognized that the approach was being used precisely as it has been used in this case – to reach Federal agency decisions without complying with the regulatory requirements, based on the mere promise to do so at a later date.

39. It is also relevant, I think, that at Section 1(c), the revised regulations allow “nondestructive planning activities before completing compliance,” but only “provided that such actions do not restrict the subsequent consideration of alternatives to avoid, minimize or mitigate the undertaking’s adverse effects on historic properties.” In the same paragraph the ACHP goes on to require that agencies “ensure that the section 106 process is initiated early in the undertaking’s planning, so that a broad range of alternatives may be considered.” One can hardly more effectively “restrict the consideration of alternatives” than by permitting a single alternative to be implemented, and allowing Section 106 review to be deferred until after the permit action is taken can

hardly be taken as consistent with the direction to undertake the process while a broad range of alternatives is open for consideration.

40. Section 2(c)(2) of the revised regulations is also relevant, I think. This section provides in considerable detail for consultation with Indian tribes, and at subsection (2)(ii) provides specifically for consultation about properties of religious significance. This subsection, I believe, underscores the importance of effective consultation with the Acoma, Hopi, Laguna, and Zuni Pueblos.

41. Section 3 of the revised regulations is almost entirely new relative to the regulations to which the Initial Partial Finding referred; it details requirements for initiating the Section 106 process, including extensive provision for consulting party identification and planning for public participation. Although at Section 3(g) it allows multiple steps in the process to be addressed simultaneously – in a sense, the obverse of phased compliance – it cautions that this can be done only if “consulting parties and the public have an adequate opportunity to express their views” in accordance with another section of the regulations.

42. I do not believe that the phased approach undertaken in this case by HRI and NRC meets the standards of the Section 106 regulations currently in force. On the contrary, I think the kind of approach that HRI has taken and NRC has allowed in this case is precisely what the ACHP was trying to preclude with much of the language in the revised regulations. The regulations I helped draft for ACHP promulgation in 1996 were, in my opinion, in no way intended to allow the kind of outright deferral of Section 106 review that has passed under the rubric of “phased compliance” on the HRI project in the past, but the language of the regulations was sufficiently imprecise to permit readers to

interpret such deferral as acceptable. As I read the current regulations, the ACHP has gone to some pains to clarify what "phased identification and evaluation" actually involve, and they involve a good deal more identification and consideration of effects on historic properties than HRI and NRC regarded as sufficient under the 1986 regulations.

43. As for the fact that the NMSHPO and Navajo Nation Historic Preservation Department accepted HRI's phased approach, this is not surprising and does not prove the adequacy of the approach. The substantial bias toward archaeology reflected in HRI's and NRC's documents, noted several times in this declaration, was and is not exclusive to these two parties. Traditionally in the Southwest, "cultural resource management" practice has been dominated by archaeologists, who have tended to find the sort of "identify and avoid" strategy advanced by HRI to be acceptable, and who do not relate comfortably to impacts that are not direct and physical. It is therefore understandable that archaeologists in the SHPO's and Historic Preservation Department's offices would accept HRI's approach. HRI's kind of strategy has been commonplace in the Southwest, but this does not make it consistent with the logic of the law and regulations. Section 106, of course, requires that agencies take into account the effects of their actions on historic properties. The strategy employed here in fact permitted NRC not to take into account the full effects of its actions, and biased what was taken into account toward direct physical effects on archaeological sites.

44. To remedy the flaws in its compliance with Section 106 and the regulations currently in force, in my opinion, NRC needs to ensure that:

45. An appropriate area or areas of potential effects are defined, embracing the entire 20-year project area and all surrounding areas where direct and indirect physical, visual, auditory, land-use, and other effects may occur;

46. Historic properties of all kinds, subject to all kinds of possible effect, are identified within such area(s) in a reasonable and good faith manner, in consultation with all concerned parties, notably the Pueblos of Acoma, Hopi, Laguna and Zuni as well as the Navajo Nation Historic Preservation Department, other Navajo groups and individuals, and the New Mexico State Historic Preservation Officer.

47. Specific attention is given to the possible non-archaeological or extra-archaeological significance of archaeological sites.

48. The eligibility of identified possible historic places for the National Register of Historic Places is properly determined in accordance with the 36 CFR 800.4(c), taking into account non-archaeological as well as archaeological measures of significance, and addressing all the National Register Criteria spelled out at 36 CFR 60.4.

49. If any of the places subject to effect is eligible for the National Register, consultation continues to determine whether there will be adverse effects on such places, addressing all types of direct and indirect effects, and analysis of cumulative effects.

50. If there may be adverse effects, consultation continues to address what can be done to avoid, minimize, or mitigate such effects, and either a Memorandum of Agreement is executed about how such effects will be resolved, or the final comment of the Advisory Council on Historic Preservation is sought and considered.

51. If the scope of the project or the complexity of potential effects is such as to demand some sort of phased approach to completion of NRC's Section 106

responsibilities, this approach should be developed through consultation among all interested parties, and should be designed to fulfill Section 106's statutory requirements in a manner consistent with the regulations now in force.

Compliance with the National Environmental Policy Act.

52. The NEPA regulations, at 40 CFR 1508.27(b), outline measures of impact "intensity" that must be considered in judging the significance of impacts on the quality of the human environment. Among these measures are:

53. At 40 CFR 1508.27(b)(3), "(u)nique characteristics of the geographic area such as proximity to *historic or cultural resources...*" (emphasis added); and

54. At 40 CFR 1508.27(b)(8), the "degree to which the action may adversely affect districts, sites, highways, structures, or objects *listed in or eligible for listing in the National Register of Historic Places* or may cause loss or destruction of significant *scientific, cultural, or historical* resources" (emphasis added).

55. Thus, as I interpret the regulations, a NEPA analysis must address impacts on historic properties as defined in the National Historic Preservation Act plus other "historic or cultural," or "scientific, cultural, or historical" resources.

56. The prescribed way of addressing impacts on historic properties is via review under Section 106 of the National Historic Preservation Act; therefore compliance with Section 106, as outlined in paragraph 7.a.vi above, should be documented in the Final Environmental Impact Statement.

57. I have no way of judging what other "historic or cultural" or "scientific, cultural, or historical" resources may exist in the vicinity of the proposed project, that should be addressed in the NEPA analysis, but possibilities that come to mind include:

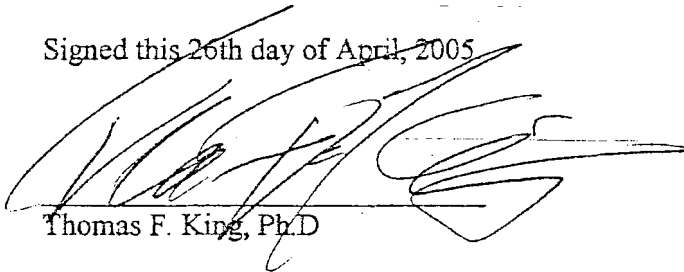
58. Places of cultural importance to local people, whose significance does not extend far enough into the past to make them eligible for the National Register of Historic Places; culturally important plants and animals; culturally important vistas; and the night sky.

59. In my opinion, it is NRC's responsibility to ensure that potential impacts on relevant cultural aspects of the human environment ("historic or cultural" or "scientific, cultural, or historical" resources) are identified, documented in the Final Environmental Impact Statement, and considered in decision making.

60. This concludes my testimony.

Pursuant to U.S.C. § 1746, I declare under penalty of perjury, that the foregoing is true and correct to the best of my knowledge and belief.

Signed this 26th day of April, 2005

A large, stylized handwritten signature in black ink, appearing to read 'Thomas F. King', is written over a horizontal line.

Thomas F. King, Ph.D

## **Thomas F. King, PhD**

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*Cultural Resource Impact Assessment and Negotiation, Writing, Training*

### **Employment**

*Presently:* Private consultant, educator, writer, facilitator in cultural resource management and environmental review; Trainer/Consultant, SWCA Environmental Consultants; Archeologist, The International Group for Historic Aircraft Recovery Amelia Earhart Project. Member, Sussex Archaeological Executive, advising the Government of Great Britain regarding archaeological recovery of HMS *Sussex* off Gibraltar.

*Formerly:* Senior Instructional Consultant, National Preservation Institute. Expert consultant to U.S. General Services Administration, program director for Advisory Council on Historic Preservation, Consultant to the High Commissioner, Trust Territory of the Pacific Islands, Archeologist with the National Park Service, consulting archeologist, head of archeological surveys at San Francisco State University, UCLA, University of California Riverside.

### **Education**

*PhD*, University of California, Riverside, Anthropology, 1976.  
*BA*, San Francisco State University (then College), Anthropology, 1968.  
*Certificate:* Mediator, Bowie State University Center for Alternative Dispute Resolution, 1997.

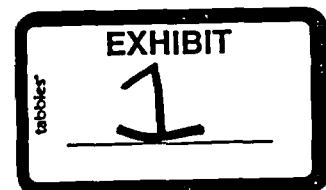
### **Recent and current Clients**

*Government Agencies:* Bureau of Land Management California State Office; Bakersfield Field Office; USDA Forest Service. USDA Farm Service Agency, U.S. Fish and Wildlife Service. U.S. Navy, U.S. Air Force, U.S. Army, Federal Aviation Administration. Grand Canyon Monitoring and Research Center. City of Newport News, Virginia.

*Indian Tribes and Organizations:* Klamath River Intertribal Fish and Water Commission; Mole Lake Sokaogon Community of Lake Superior Chippewa Indians; Bad River and Red Cliff Bands of Lake Superior Tribe of Chippewa Indians. Hualapai Tribe. Quechan Indian Nation. Round Valley Indian Tribes. Penobscot Tribe.

*Private Sector:* Blythe Energy Corp., Cingular Wireless. Odyssey Marine Exploration.

*Non-profit organizations:* National Preservation Institute.





## **Thomas F. King: Courses Taught**

Short courses for SWCA Environmental Consultants, National Preservation Institute, University of Nevada, Reno, General Services Administration, Advisory Council on Historic Preservation, Environmental Protection Agency, National Park Service, and Department of Defense in cultural resource law and policy, Section 106 review, National Environmental Policy Act implementation, identification and protection of traditional cultural properties, Native American consultation, environmental justice, conflict resolution, and related subjects.

## **Thomas F. King: Publications (Selected)**

### ***Books and Monographs***

- *Cultural Resource Laws and Practice: An Introductory Guide*. AltaMira Press 2004 (First edition 1998)
- *Places that Count: Traditional Cultural Properties in Cultural Resource Management*. AltaMira Press 2003
- *Thinking About Cultural Resource Management: Essays From the Edge*. AltaMira Press 2002.
- *Amelia Earhart's Shoes*. With R. Jacobson, K. Burns, and K. Spading. AltaMira Press, 2001.
- *Federal Projects and Historic Places: the Section 106 Process*. AltaMira Press, 2000
- *Piseken Nóomw Nón Tonaachaw: Archeology in the Tonaachaw Historic District, Moen Island, Truk*. With P.L. Parker, Southern Illinois University, Carbondale and Micronesian Archeological Survey, Saipan 1984.
- *Anthropology in Historic Preservation*. With P.P. Hickman and G. Berg, Academic Press, New York 1977.
- *The Archeological Survey: Methods and Uses*. Interagency Archeological Services, Heritage Conservation and Recreation Service (National Park Service), Department of the Interior, Washington DC 1977 (Republished 2003 by California Division of Forestry).

### ***Articles***

- Considering the Cultural Importance of Natural Landscapes in NEPA Review: The *Mushgigamongsebe* Example. *Environmental Practice* 5:4, Oxford University Press, 2003
- "I Learned Archaeology From Amelia Earhart: Using a Famous Mystery to Teach Scientific Methods." In *Strategies for Teaching Anthropology*, 3<sup>rd</sup> Edition, Patricia Rice and David McCurdy, eds., Prentice Hall, New York; 2003..
- "Cultural Resources in an Environmental Assessment Under NEPA." *Environmental Practice* 4(3):137-144, National Association of Environmental Professionals, September 2002.
- "Historic Preservation Laws" in *Encyclopedia of Life Support Systems*. EOLSS Publishers for UNESCO, 2002.

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- "What Should Be the 'Cultural Resources' Element of an Environmental Impact Assessment?" *Environmental Impact Assessment Review* 20(2000):5-30, 2000.
- "Archaeology in the Search for Amelia Earhart." With Richard Gillespie. In *Lessons from the Past: An Introductory Reader in Archaeology*, Kenneth L. Felder, ed., Mayview Press, Mountain View CA, 1999
- "How the Archeologists Stole Culture: a Gap in American Environmental Impact Assessment and What to Do About It." *Environmental Impact Assessment Review*, January 1998.
- "The Nature and Scope of the Pothunting Problem." In *Protecting the Past: Readings in Archaeological Resource Management*. J.E. Ehrenhard and G.S. Smith, eds., The Telford Press, Caldwell NJ 1991.
- "AIRFA and Section 106: Pragmatic Relationships." In *Preservation on the Reservation*, A. Klesert and A. Downer, eds., Navajo Nation Publications in Anthropology 26, Window Rock 1991.
- "Prehistory and Beyond: The Place of Archeology" In *The American Mosaic: Preserving a Nation's Heritage*. R.E. Stipe and A.J. Lee, eds., US/ICOMOS, Washington DC, 1987.
- "Intercultural Mediation at Truk International Airport." With P.L. Parker. In *Anthropological Praxis: Translating Knowledge Into Action*. R.W. Wulff and S.J. Fiske, eds., Washington Association of Professional Anthropologists, Westview Press, Boulder 1987.
- "The Once and Future Drought." *American Archeology* 5:3:224-8, Ridgefield, CT 1985
- "Professional Responsibility in Public Archeology." *Annual Review of Anthropology* 12, Palo Alto 1983.
- "Recent and Current Archeological Research on Moen Island, Truk." With P.L. Parker. *Asian Perspectives* xxiv(1):11-26, Honolulu 1981.
- "The NART: A Plan to Direct Archeology Toward More Relevant Goals in Modern Life." *Early Man*, Evanston, winter 1981.
- "Don't That Beat the Band? Nonegalitarian Political Organization in Prehistoric Central California." In *Social Archeology*, C. Redman, Editor, Academic press, New York 1978.
- "The Evolution of Complex Political Organization on San Francisco Bay". In *'Antap: California Indian Political and Economic Organization*. L.J. Bean and T.F. King, eds., Ballena Press, Ramona, CA 1974.

### *Government Guidelines and Regulations*

- Regulations, guidelines, and plain-language brochures on environmental and cultural resource management, NEPA review, Section 106, and related topics, for Department of Agriculture Farm Service Agency (FSA) (unattributed, with FSA NEPA and Cultural Resource staff). FSA, 2004.

### *Government Guidelines and Regulations (Continued)*

- Orders, Guidelines, and Fact Sheets: Cultural Resource Management, Floodplain Impact Management, Wetlands Impact Management, Federal Real Property Disposal, Archeological Collections Management, Indian Sacred Sites Management, Historic Document and Artifact Management, Environmental Justice, and Social Impact Assessment (unattributed, with GSA NEPA Call-In Staff). General Services Administration, Washington DC, 1998.
- *NEPA Desk Guide* and related orders (unattributed, with L.E. Wildesen and GSA Environmental Quality Working Group). General Services Administration, Public Buildings Service, Washington DC, 1997.
- *Guidelines for Evaluating and Documenting Traditional Cultural Properties*. With P.L. Parker. National Register Bulletin 38, National Register of Historic Places; National Park Service, Washington DC, 1990
- *Preparing Agreement Documents*. Advisory Council on Historic Preservation, Washington DC, 1989.
- *Public Participation in Section 106 Review: a Guide for Agency Officials*. Advisory Council on Historic Preservation, Washington DC 1989.
- *Identification of Historic Properties: a Decisionmaking Guide for Managers*. Advisory Council on Historic Preservation and National Park Service, Washington DC 1988.
- *The Section 110 Guidelines: Guidelines for Federal Agency Responsibilities Under Section 110 of the National Historic Preservation Act*. With S.M. Sheffield. 53 FR 4727-46, National Park Service, Washington DC 1988
- *Regulations for the Consideration and Use of Historic and Cultural Properties* (Unattributed). Commonwealth of the Northern Mariana Islands Historic Preservation Office, 1983
- *Treatment of Archeological Properties: a Handbook*. Advisory Council on Historic Preservation, 1980.

### *Popular*

- "Amelia Earhart: Archaeology Joins the Search." *Discovering Archaeology* 1:1:40-47, El Paso; January-February 1999
- "Sea Changes: 14th Century Micronesia." *Glimpses of Micronesia and the Western Pacific* 25:1, Honolulu 1985.
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- "How You Can Help the Archeologists." *Boys Life*, Boy Scouts of America, 1971.

### *Other*

- Videotapes on "historic contexts" and "traditional cultural properties," for National Park Service
- "E-Book" environmental review software, for General Services Administration
- "NEPA for Historic Preservationists and Cultural Resource Managers," worldwide web pages for National Preservation Institute.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:  
E. Roy Hawkins, Presiding Officer  
Richard F. Cole, Special Assistant  
Robin Brett, Special Assistant

In the Matter of:

HYDRO RESOURCES, INC.  
P.O. Box 777  
Crownpoint, New Mexico 87313

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)  
) Docket No. 40-8968-ML  
) ASLBP No. 95-706-01-ML  
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DECLARATION OF THOMAS MORRIS, JR.

1. My name is Thomas Morris, Jr. I am the President of the Diné Medicine Men Association, Inc. I am a practitioner in the Navajo Blessing Way ceremony and also certified as a Native American Church Roadman. In order to be a medicine person, one has to have knowledge of cultural values, legends, and teachings on the different ceremonies. As a medicine person, I need to be aware of federal and tribal laws that impact tribal resources. Blessing Way ceremony is an example of cultural resources preservation.

2. I assisted in forming a non-profit corporation of Diné Medicine Men Association, Inc. ("Association"), and chartered through the Navajo Nation Business Regulatory Office. The purpose of the Association is to protect and preserve the sacred sites and Diné healing ceremonies on the Diné Nation. The Association serves as an advocacy group to protect and preserve all Diné healing ceremonies and its practitioners. It further advocates preserving all sacred sites within the Diné Nation.



3. As a member of the Association, I became involved in advocating for the preservation of ceremonies that were about to become extinct. Through these efforts, an apprenticeship program was established through the Navajo Nation Diné Culture and Language Program. Numerous practitioners were sanctioned to conduct ceremonies that were previously considered to be extinct. Through the continuing effort of the Association, certain ceremonial paraphernalia was recovered from museums throughout the country. These misplaced paraphernalia were given to practitioners of those ceremonies.

4. I, as a member of the Association, perform by placing precious stones as offerings, which bring rain during the drought season. These ceremonies were coordinated through the Navajo Nation President's Office.

5. I have worked with numerous environmental preservation groups, including: Living Rivers of Moab, in preserving the Colorado River and The Sierra Club of Flagstaff, on White Vulcan Mine on the San Francisco Peaks (Dook'oo'sliid).

6. I have worked as a consultant with numerous Tribal, Federal, and State organizations regarding the Diné Traditional Values. I have worked with the Navajo Division of Education and assisted in the development of *The Navajo Beauty Way...A Way of Life* curriculum. This curriculum is currently being taught in the schools on the Navajo Nation. I have provided consultation services to the Navajo Division of Social Services by providing training on Diné Traditional Values and developed a training manual on Navajo history and culture. This manual is currently being used by social workers on the Navajo Nation. I have given many presentations on Diné Traditional Values, philosophy, and teachings at schools, health organizations, Chapter Houses,

conferences and seminars. My audience has included District Court Judges, attorneys, doctors, teachers, social workers, victim assistance workers, and other professionals.

7. I am a member of the University of New Mexico School of Medicine Community Advisory Board. As a member, I share information regarding the Diné healing way and how Diné medicine should be utilized as a resource in healing individuals.

8. I have provided consultation services to attorneys for the State of New Mexico, the State of Arizona, and private attorneys on cultural issues relating to their clients. I have also provided expert testimony in some of those cases.

9. In preparing this declaration, I have reviewed the following:

- a. The Final Environmental Impact Statement, NUREG-1508, Final Environmental Impact Statement to Construct and Operate the Crownpoint Uranium Solution Mining Project, Crownpoint, New Mexico (February 29, 1997) ("FEIS") (ACN 9703200270, NB 10).
- b. The report entitled *Report on Sacred and Traditional Places for Hydro Resources, Inc.* by Ernest C. Becenti, Sr., transmitted to Hydro Resources on February 14, 1996 (ACN 9603110358, NB 9.1)
- c. A site visit to the proposed site in Crownpoint, New Mexico, on April 20, 2005.

10. Upon review, my findings are as follows: The report submitted by Earnest Becenti was very disturbing. Diné Traditional Healers are taught to respect all sacred sites which includes water, plants, and the air that we breathe.

11. My interviews with some community members resulted in mixed opinions. The opinions seemed to hinge on whether these individuals were direct recipients of royalty payments. For example, one older woman, whom I spoke with, was a recipient of royalty payments and was in favor of uranium mining on her land. However, her children and grandchildren were in opposition to mining. Another man opposed future mining because his father suffered severely as a result of mining before he died.

12. Our elders taught us that land – the earth – was our mother. Our mother should be sacred and respected. Traditionally, respect was taught as our mother provided food and game, including deer and rabbits, for us to eat. Our mother also provides water for us and is considered necessary for life. Natural plants were abundant, some of which were used as herbs for healing purposes.

13. Stories were told as to how the Holy People have identified the boundaries for Diné People to live by marking and naming the beautiful mountains surrounding us. The mountain to the East was named Sis naa jini; the mountain to the South was named Tsoo dzil; the mountain to the West was named Dook'o'oosliid; and the mountain to the North was named Dibe'Nitsaa. The sacred mountains were identified as our home or our hogan. Four cardinal poles were placed with the white shell representing struggles to maintain our traditional way of life. Many of our people no longer value such things as the "sacred mountain bundle" or living a simple, harmonious life. It appears that many families were overcome by the influence of the dominant society where money was considered very important. Our children were taught to become educated so they could earn more money. With this in mind, some of our people have succumbed to uranium

mining on their allotted lands, with little knowledge that great harm will come to the people.

14. Some of our children have a difficult time understanding the values of the sacredness of the Diyin Diné e'Bitsa'e'dee Beehaza'a'nii (The Laws of the Holy People), as their parents and grandparents did not or could not teach the traditional values any more.

15. Since uranium mining has come to our land, our sacred and harmonious way of life no longer exists. People were disharmonized and became sick.

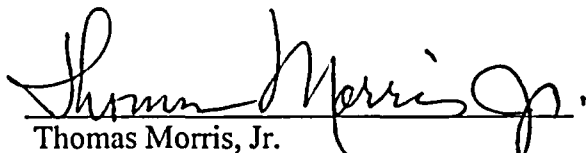
16. Currently, Traditional Practitioners fear gathering herbs from the areas affected by uranium mining due to the possible effects the disturbance may have on the healing properties of the herbs.

17. Further expansion of uranium mining would further limit the areas where Traditional Practitioners could gather sacred herbs. In effect, the project would eliminate our use of the area entirely.

18. This concludes my declaration.

Pursuant to U.S.C. § 1746, I declare under penalty of perjury, that the foregoing is true and correct to the best of my knowledge and belief.

Dated this 27<sup>th</sup> day of April, 2005.

  
Thomas Morris, Jr.  
President, Diné Medicinemen Association



# CROWNPOINT URANIUM PROJECT

## CONSOLIDATED OPERATIONS PLAN

### 1.0 GENERAL DESCRIPTION

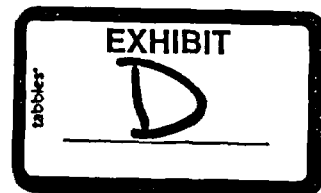
The Crownpoint Uranium Project (as collectively described in 1.1 below) has been the subject of a number of applications, reports, submittals, correspondence, and various other documentation which has been submitted to the United States Nuclear Regulatory Commission (USNRC). The general chronology of these submittals is specified in 1.2 below.

Because the licensing of the Crownpoint Uranium Project has taken a number of years, and included several additional mine locations with corresponding informational submittals, USNRC has expressed concern that the Application information has become disjointed for the purpose of "tiedown provisions" in the operating license. The purpose of this CONSOLIDATED OPERATIONS PLAN (COP) is to extract, and combine the information in previously submitted documents into one consolidated specification report. This document will contain all the specifications, and representations which have been articulated to NRC in the past under one cover.

### 1.1 Project Identification

Hydro Resources, Inc., (HRI)\* a wholly-owned subsidiary of Uranium Resources, Inc. proposes to develop an in-situ uranium leach operation in McKinley County, New Mexico (Fig 1.1-1). The proposed project will consist of three separate facilities including the Churchrock, and Unit 1 Satellites, and the Crownpoint Central Plant (CCP). Each will have a nominal leaching capacity of 4000 gpm, and production capacity of 1 million Lbs. per year. Collectively, the CCP, and satellite facilities is referred to as the Crownpoint Uranium Project (CUP). The location of each is described separately below:

\* Hydro Resources, Inc. is a Delaware Corporation licensed to do business in New Mexico. Because the name "Hydro Resources" was not available, the company operates as HRI, Inc. (also referred to as HRI). All references to Hydro Resources, Inc., and HRI should be considered interchangeable for the purposes of this report.



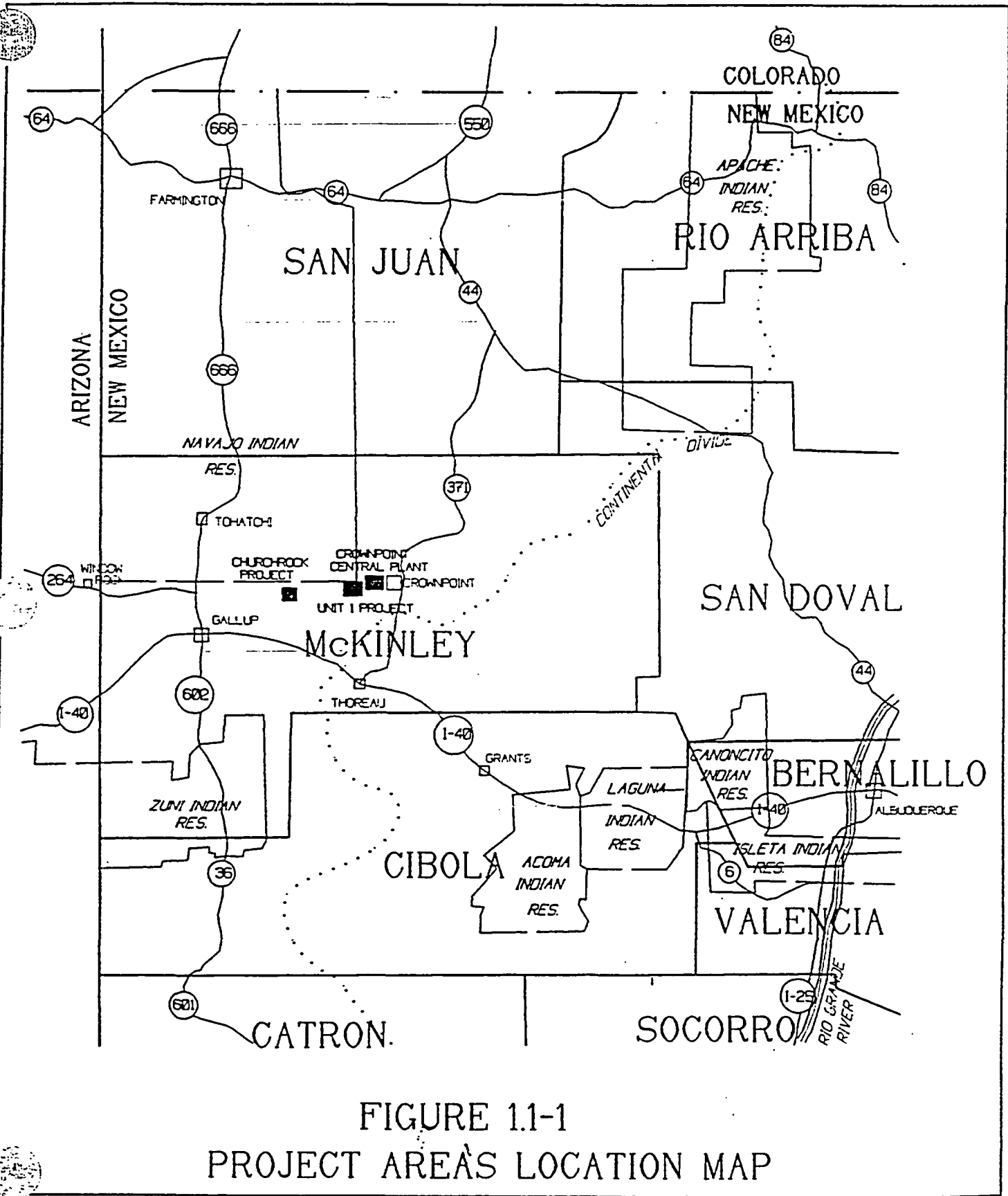


FIGURE 1.1-1  
PROJECT AREAS LOCATION MAP

**1.1.1 Crownpoint**

The Crownpoint Central Plant (CCP) is located on the SE/4 of Section 24, Township 17 North, Range 13 West of McKinley County, New Mexico. Mining activities are anticipated within the license boundary as described herein.

**T17N, R12W:**

Beginning at a point on the NW corner of the SW/4 of Section 19, go 1,320' East along the North line of the South half of Section 19 to a point at the NE corner of said tract of land;

THENCE South along the East line of said tract 2,640' parallel with the West line to the SE corner of said tract of land;

THENCE West along the South line of said tract 1,320' parallel with the North line of the SW corner of said tract of land;

THENCE North along the West line of said tract 2,640' parallel to the East line to the point beginning for said tract of land located in Section 19.

Additionally,

Beginning at a point 650' South of the NW quarter for a point of beginning for said tract of land located in the West half of Section 29, go 2,640' East along the North line of said tract parallel to the South line of said W/2 of Section 29;

THENCE South along the East line of said tract 4,630' parallel with the West line to the SE corner of said tract of land;

THENCE West along the South line of said tract 2,640' parallel with the North line to the SW corner of said tract of land;

THENCE North along the West line of said tract 4,630' parallel to the East line to the point of beginning for said tract of land located in Section 29.

**T17N, R13W:**

Beginning at a point on the NW corner of the SW/4 of Section 24, go 5,280' East along the North line of the South half of Section 24 to a point at the NE corner of said tract of the SE/4;

THENCE South along the East line 2,640' parallel with the West line to the SE corner of the SE/4 of said Section 24;

THENCE South along the East line 465' parallel with the West line to a point on said East line which is the SE corner of said tract in Section 25;

THENCE West along the South line of said tract of land 2,640' parallel with the North line of said tract;

THENCE North 465' along the West line parallel with the East line to the NW corner of said tract of land located in Section 25;

THENCE West 2,640' along the South line parallel with the North line to the SW/4 of Section of 24;

THENCE North along the West line 2,640' parallel to the East line to the point of beginning.

The location of the Crownpoint mine is illustrated with respect to topography, and cultural features on Figure 1.1-2.

#### **1.1.2 Churchrock**

The process facility for the Churchrock satellite will be located in the SE/4, SE/4 of Section 8, T16N, R16W.

Mining could be located on one, or both of the parcels of land owned, or leased to HRI on Section 8, and 17, T16N, R16W as described below:

##### **Section 8**

SE/4 - 174.546 ac. Patent Mining Claims

##### **Section 17**

200.0 acres being NE/4, and the SE/4 NW/4

The location of the Churchrock property is illustrated with respect to the topography, and cultural features on Figure 1.1-3.

#### **1.1.3 Unit 1**

The process facility for the Unit 1 satellite will be located in the NE/4, SE/4 of Section 21, T17N, R13W.

Mining could be located on any of the parcels of land leased to HRI as described below.

## 1.6 Surety Bonding

HRI will provide financial security for mine closure, including surface, and subsurface restoration, and reclamation. The amount of the surety will be determined by the NRC based on cost estimates for completion of the approved reclamation plan by a third party in the event that HRI defaults. The surety will be reviewed annually by the NRC, and adjusted to reflect expansions in operations, changes in engineering design, and inflation. The amount of surety will also be subject to NMED, and/or EPA regulatory approval, and the form will meet the requirements of NMWQOC 5-210.B.17, and/or 40CFR144.63.

## 1.7 Cultural Resources Management

HRI will maintain, and implement a final cultural resources management plan for all mineral operating lease areas, and other land affected by licensed activities, pursuant to the National Historic Preservation Act Section 106 review, and consultation process. The plan will provide specific procedures to implement HRI's policy of avoiding cultural resources. The plan will include archaeological, and traditional cultural property surveys of all lease areas, identification of protection areas where human activity will be prohibited, archaeological testing (by an archaeologist contracted to HRI, and holding appropriate permits from the Navajo Nation, and the State of New Mexico) before subsurface disturbance occurs at a specific location, and archaeological monitoring during all ground disturbing construction, drilling, and operation activities. In the event that previously unidentified cultural resources, or human remains are discovered during project activities, the activity in the area will cease, appropriate protective action, and consultation will be conducted, and if indicated, the artifacts, or human remains will be evaluated for their significance.

## 1.8 NRC Performance Based Licensing (PBL)

Consistent with NRC licensing policy, HRI is planning operations to be consistent with PBL license format. Under the PBL format, HRI will ensure the proper implementation of the Performance Based Condition. Under this format HRI can:

- a. Make changes in the facility, or process, as presented in the COP,
- b. Make changes in the procedures presented in the COP,

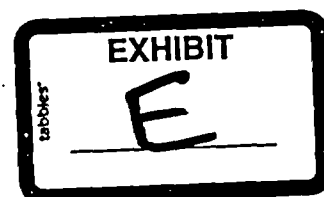
## INTRODUCTION

This report provides a cultural resources-environmental assessment for the proposed HRI Crownpoint mining lease. The lease is located in the immediate area of Crownpoint, New Mexico. The objective of this report is to evaluate the nature of the archaeological, historical, and traditional cultural properties within the lease area and to develop a preliminary management plan that ensures resource preservation.

The HRI Crownpoint lease is an 800-acre tract located in three parcels within and adjacent to Crownpoint, New Mexico (Figures 1 and 2). The proposed in situ solution uranium mine would involve the development of injection-extraction wells, access roads, and a pipeline gathering system. The pipeline system would transport the material to a processing facility at the existing HRI plant west of Crownpoint. The placement of the various wells, roads, and pipelines within the Crownpoint lease area is very flexible, and the system can be planned in such a manner to avoid adverse impact, both direct and indirect, to the cultural resources of the area.

The information presented in this report includes a description of the known cultural resources in the Crownpoint lease area and an outline of a cultural resource management plan for the project. Information regarding the culture history and potential research considerations is also presented. A management plan describing the proposed HRI mining project in terms of potential impact on the cultural resources is also discussed. The management section of the report includes discussion of the proposed Class III cultural resource inventory, information on the archaeological and traditional site protection plan, and considerations of indirect impact. Information concerning Kin Ya'a, the State and National Register protection site located adjacent to the lease, is also included. In addition, statements are made regarding the proposed treatment of sacred and traditional sites and human burials and graves.

It is the purpose of this report to serve as a preliminary planning document for cultural resource and traditional site management in the HRI Crownpoint lease area. It is probable that the proposed mine would be developed at intervals over a period of years. Specific management plans that define precise site boundaries and avoidance procedures will be developed for each proposed mining project. This inventory will be completed at a later date as part of an environmental clearance document which will be submitted to the Navajo Nation Historic Preservation Department, the Bureau of Indian Affairs, and other concerned agencies prior to any work in the lease area.



## CONCLUSION

The cultural resources-environmental assessment conducted for the HRI Crownpoint lease indicates that it is located within a cultural district of considerable significance. Indeed, the proposed lease is within the Kin Ya'a community complex and is placed in direct proximity to the Kin Ya'a - Chaco Culture National Historical Park and State Cultural Properties Register Site No. 57. The lease area is also the location of a rather extensive historical period Navajo occupation, and it has the potential to contain properties of sacred or traditional value. Numerous cultural properties that qualify for nomination to the National Register are probably present in the lease area. Other sites that qualify for preservation under the American Indian Religious Freedom Act and the Navajo Nation Policy to Protect Traditional Cultural Properties are also likely to be present.

Any plans for mining activity within the lease area must be extremely sensitive to the cultural properties within the area. A management plan for the proposed lease area can, however, effect total avoidance of the cultural resources. This avoidance plan is possible given the flexible nature of the proposed in situ mining project. Following a systematic Class III cultural inventory and traditional site inquiry, all significant cultural properties within the lease area would be recognized as protection zones and the boundaries marked. A specific cultural resource management plan would then be developed and submitted to the Bureau of Indian Affairs and Navajo Nation Historic Preservation Department for approval. The limited subsurface disturbance in the area would be preceded by archaeological test excavations in case buried or concealed cultural remains are present, and all construction projects would be archaeologically monitored.

Given the implementation of the culture resource management plan outlined in this report, adverse impact to the cultural resources of the lease area would be negligible. Furthermore, the proposed study of cultural resources in the lease area would significantly contribute to our knowledge of the Chacoan community structure and recent Navajo history.

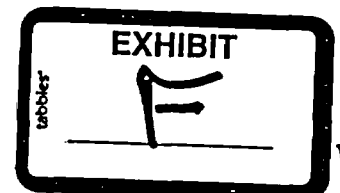
## Prehistory

Human occupation in New Mexico may extend back into the late Pleistocene (Chrisman et al. 1996), but the majority of archaeological evidence falls within the past 12,000 years. A detailed culture history presentation is beyond the scope of this report, and only an outline will be presented here. This outline has been assembled from summaries presented by Binford and Amsden (1992b), Cordell (1982), Judge (1989), Leblanc (1989), and Wilson et al. (1996). In addition, a large site cluster about three miles west of the Church Rock Site was excavated as part of the Transwestern Pipeline Expansion Project (Sullivan 1994). These excavations have provided cultural historical and geomorphic comparative information for interpreting sites in the Church Rock Site area.

The Paleoindian period (ca. 12,000-7500 B.P.) marks the first extensive occupation of west central New Mexico. Populations were thinly distributed, exploiting large territories in the changing postglacial environment. Hunting is the most visible activity because of the association of many Paleoindian sites with extinct megafauna, but resource exploitation should have been broad in scope. Site recognition is dependent on the discovery of distinctive spear point types (such as Clovis and Folsom), and even these are not clear indicators of Paleoindian sites. Scavenging and recycling of Paleoindian artifacts by later Archaic and Anasazi populations have resulted in the misattribution of some Paleoindian components. Similarly, however, a large proportion of Paleoindian sites and components are unrecognizable as such because diagnostic artifacts have been removed or were never left behind. Geomorphic processes over the millennia have also affected the distribution and recognition of Paleoindian sites. Many sites have been eliminated or covered on active landscapes such as the area around the Church Rock Site, while there is a higher probability of preservation and detection on landscapes such as the area of Section 12. No Paleoindian sites or components have been documented in the immediate vicinities of either area.

The Archaic period spans the end of the Paleoindian period through the adoption of pottery (ca. 7500 B.P. to A.D. 200-400). Relative environmental stability followed the postglacial warming, with the disappearance of the last of the Pleistocene megafauna and the development of modern semiarid vegetation distributions. Although stable in global terms, the Archaic period experienced cycles of changing aridity, alluviation, and the expansion and contraction of vegetation zones. Hunting is the most visible component of the Archaic lifeway, but it was clearly a broad spectrum gathering and hunting economy. Mobility was relatively great, with the exploitation of targeted resources over wide areas during the course of a year. Maize was introduced at ca. 3500-4000 B.P., supplementing wild resources and accelerating the cycle of increasing population density and increasing economic intensification. The Archaic period is subdivided into phases based on stylistic change in dart points, although some portions of the stylistic sequence appear to overlap significantly rather than being sequential (Hogan 1996).

Compared with Paleoindian sites, Archaic sites are abundant in west central New Mexico, but they suffer some of the same limitations in visibility and interpretability. Aceramic sites without stylistically diagnostic dart points are difficult to assign to a period with confidence. Also, although there have been fewer landscape changes through and subsequent to the Archaic period, a proportion of Archaic sites have suffered the same geomorphic destruction and burial as Paleoindian sites. No Archaic sites have been previously recorded within the vicinities of the Church Rock Site and Section 12, but there are archaeological sites of unknown age and cultural affiliation in the vicinities of both locations that could be Archaic sites. Archaic sites are more likely to have been eliminated, buried, or obscured by later components in the Church Rock area than in the Section 12 area.





Increasing sedentism and increasing population density mark the transition from the aceramic Archaic period to the ceramic period. Over the course of several centuries beginning about A.D. 200, pottery was incorporated into the agricultural complex. Between A.D. 400 and 600, pottery technology was modified to make use of the abundant shale clays of the Colorado Plateau, resulting in the Anasazi pottery tradition. Anasazi sites indicate greater sedentism, more investment in facilities, and the concentration of settlements in agricultural settings. Coupled with shallower time depth and relative geomorphic stability, Anasazi sites are highly visible and have been preserved on the landscape in higher proportions than sites dating to the earlier periods. Most Anasazi residential sites can be dated with precision based on patterns of stylistic change in ceramics, including the potential to distinguish individual components within sites that have complex occupation histories.

Previously documented Anasazi sites are present within both the Church Rock and Section 12 project areas. Components range from the early portion of the Anasazi sequence (Basketmaker III) through the end of the Anasazi sequence (Pueblo III). Site density is higher in the immediate vicinity of the Church Rock Site, but there are large and important Chacoan Anasazi communities defined in the areas around the Section 12 Site (Marshall 1992). The presence of sites dating throughout the Anasazi sequence suggests that this period is relatively free from the obscuring effects of regional geomorphic processes. However, local geomorphic processes clearly have obscured or eliminated some sites, as evidenced by discoveries of buried site features during the OAS survey of the Church Rock Site.

The end of the Pueblo III period marks a transition from Anasazi to Puebloan settlement and provides the setting for the start of the historic period. Global patterns of climate change modified the rainfall regime on the Colorado Plateau (Ahlstrom et al. 1995; McVickar and Brown 1996; Petersen 1995). This modification began in the thirteenth century and persisted until about A.D. 1500, correlating with the cessation of Anasazi farming to the north of the Puerco and San Jose river valleys in west central New Mexico. Anasazi populations migrated to the south of these valleys, reorganizing into communities that are ancestral to the modern Pueblo Indian communities. The Church Rock Site was close enough to these Puebloan resource areas that landscape use probably continued for other purposes than agriculture and residence. The vicinity of the Section 12 Site probably received less use by Anasazi descendants.

Hunting and gathering peoples presumably exploited these areas from the north after farmers had withdrawn. By A.D. 1500, these peoples included Athapaskan ancestors of the Navajos. The strongest early record of Navajo prehistory is in the Dinétah area of northwestern New Mexico (Towner and Dean 1996). Perhaps as early as the late seventeenth century, Navajo people had moved west of the Chuska Mountains (about 35 miles north-northwest of the Church Rock Site), and by the mid-eighteenth century, there were large Navajo settlements and communities (Gilpin 1996). This period of transition between the prehistoric and protohistoric period is poorly known in west central New Mexico, and most early Navajo sites are attributed to the Gobernador phase of the early or mid-eighteenth century (Marshall 1988, 1992). Clear dating criteria are lacking, but Navajo sites that may date to this period have been defined by previous archaeological survey in the vicinity of the Church Rock Site (Marshall 1993).

## History

Janet E. Spivey

The historic period in the Church Rock and Crownpoint project areas spans more than 400 years of interaction among Native Americans, Spanish, and Anglo-American cultures. A detailed summary of historical events is beyond the scope of this report. Some of the many sources that relate the events and patterns of the historic period are Gumerman and Olson (1968), Weaver (1978), Nelson and Cordell (1982), Scheick (1983), Kauffman (1985), Bailey and Bailey (1982, 1986), Reed and Horn (1990), K. Kelley (1982, 1984), L. Kelley (1968), Giese (1991), McNitt (1972), Van Valkenburgh (1974), Reeve (1960), Kluckhohn and Leighton (1962), and Brugge (1983).

The Navajos speak the Athapaskan language, as do other Apachean tribes of the Southwest. While scholars agree that the Navajo and Apaches originally lived in western Canada, there is no consensus on when they arrived in the Southwest. However, it is generally agreed that these groups migrated into the present southwestern United States sometime before the arrival of the Spaniards in New Mexico in 1540 A.D. Brugge (1984) suggests that by A.D. 1400 the former Anasazi territory probably contained a widespread Athapaskan population, which had entered the Southwest from the mountains and foothills of Colorado. Schaafsma believes the Athapaskans did not arrive in the Southwest until the late A.D. 1500s or 1600s. He suggests they entered the western High Plains about 1525 A.D. and then migrated into the Southwest. He argues the Navajos did not enter the San Juan Basin until after the Pueblo Revolt in 1680 (Amsden 1992:50).

As far as is known, the word *Navajo* did not appear in written Spanish documents until 1626, when Fray Jerónimo de Zárate Salmerón noted the presence of the "Apache Indians of Nabaju," who were occupying the Chama Valley and a portion of the San Juan Basin in northwestern New Mexico. Today the Navajo speak of this region as their original homeland, or Dinétah (Bailey and Bailey 1986:12).

In 1636, when Friar Benavides wrote a description of the early Navajos, he described them as agriculturalists and somewhat sedentary. Spanish documents from the early to mid-1700s stated that the Navajos were living in small communities on tops of mesas near their fields. Sheep and goats, acquired through raiding and trading, were already being utilized for food and wool (Kluckhohn and Leighton 1962:34-35).

The Navajos raided the Pueblos and Spanish settlements and were thus the target of retaliatory raids. As early as 1608, it is known that the Navajos were raiding the Spaniards for livestock. Spanish documents from the 1700s were mostly concerned with the Navajos in regard to warfare and trade; little is known about social organization or other parts of their lives (Bailey and Bailey 1986:13).

Spanish missions were set up in Navajo areas but for the most part were abandoned, with the result that the Navajos were able to avoid Spanish control and influence. Because the Navajos were less directly affected by the Spanish religion or government than the Pueblo Indians, they did not feel as compelled to drive the Spaniards out of the Southwest. Therefore, as far as is known, the Navajos did not play a major role in the Pueblo Revolt of 1680 or the Spanish Reconquest of 1692. During these events, some of the Pueblo refugees left the Rio Grande area and joined the Navajo groups. These Pueblo refugees brought with them knowledge of weaving, pottery-making, religion,

About 3,600 Navajos served in the military during World War II. The Navajo "Code Talkers" contributed greatly to the winning of the war in the Pacific theater. Although the period 1933-50 ended with a postwar economic decline, it set the stage for a mixed cash and pastoral economy that continues to this day (Doleman 1979:14).

Wage income opportunities increased considerably in the 1950s with the development of oil and gas fields, especially in the northeastern part of the reservation. Tribal wealth increased from mineral royalties. The 1980s and 1990s have seen an increase in the exploitation of coal and uranium resources. These activities have helped improve the Navajo economy and brought the Navajos into closer contact with the Anglo culture and cash economy. Although isolated houses and sheepherding activities continue today in the eastern reservation area, changes in the Navajo economy and culture are occurring at a rapid rate (Doleman 1979:14).

### *Regional Perspectives on Traditional Navajo Land Use*

Janet E. Spivey

Information concerning traditional uses of the region and project areas has been collected from traditional practitioners, Navajo chapter officials, and local knowledgeable elderly residents. The chapters (Church Rock, Crownpoint, Pinedale, Mariano Lake, Smith Lake, Little Water, Becenti, and Dalton Pass) represented in this report have boundaries within or adjacent to the Church Rock or Section 12 project areas. The following is a brief history and information about areas that are commonly used by traditional practitioners or chapter residents but not within the project areas.

—Four sacred areas that are in current use are mentioned by all the traditional practitioners interviewed for this project: Hosta Butte, Little Hosta Butte, Mount Powell, and White Spot Rock, or Mesa Butte. Of these, Hosta Butte is perhaps the most sacred site to the Navajo people and is often visited as an offering place. Hosta Butte, the most prominent and elevated landform in the Lobo Plateau, lies five miles northwest of the Smith Lake Chapter and six miles south of the Crownpoint area. Hosta Butte rises to an elevation of almost 8,600 feet. There is evidence that Hosta Butte was an important shrine during the Chacoan Anasazi occupation of the region. The pinnacle is the destination of the Chaco South Road, which extends 34 miles, linking the great houses of Chaco Canyon with Kin Ya'a and Hosta Butte (Marshall 1992:21).

The Navajo people refer to Hosta Butte as AK' i dah nast' ani (The Mountain that Sits on Top of Another Mountain). The name *Hosta Butte* dates back to 1877, when it was given to the mountain by W. J. Jackson in honor of a Jemez Indian who guided Col. John Washington's expedition in 1849 (Marshall 1992:21). Numerous shrines are located on the summit, and many contain offerings. Mr. Jim Charley, a 76-year-old traditional practitioner from Smith Lake Chapter, stated that Hosta Butte is used during war times as a place to pray for peace and to pray for rain during a drought, and as a place for Navajo people to pray for harmony with the environment. Jean Mariano, a 77-year-old traditional practitioner from Mariano Lake, also identified Hosta Butte as a special shrine to place offerings and say prayers to the spirits. William Raymond, an 84-year-old traditional practitioner from Little Water, stated that Hosta Butte was a prime location for shrines and prayers for rain during a drought (Spivey 1996).

Little Hosta Butte is three miles west of Hosta Butte. According to Jean Mariano, it is used for gathering eagle feathers, but no ceremonies are held there. Also, Mount Powell is used as a

## INTRODUCTION

This report provides a cultural resources-environmental assessment for the proposed HRI Unit No. 1 lease area near Crownpoint, New Mexico. The objective of this report is to evaluate the nature of the archaeological, historical, and traditional cultural properties within the proposed lease area and to develop a preliminary management plan that ensures resource preservation. The proposed HRI Unit No. 1 lease area is a 1307-acre tract located near Crownpoint, New Mexico (Figures 1 and 2). The proposed in situ solution uranium mine would involve the development of injection-extraction wells, access roads, a pipeline gathering system, and a processing facility. The location of this facility within the lease is very flexible and can be planned in such a manner to avoid adverse impact, both direct and indirect, to the cultural resources of the area. A preliminary cultural resource management plan for the proposed lease area is presented in this report. Specific management plans that define precise site boundaries and avoidance procedures will be developed following a Class III cultural resources survey. This survey will be completed after the lease acquisition and will be part of the environmental clearance document to be submitted to the Navajo Nation and the Bureau of Indian Affairs prior to the project development.

The information presented in this report includes a description of the known cultural resources in the proposed lease area, details of a cultural resource management plan, and information regarding culture history and potential research considerations for the area. A management plan describing the proposed HRI mining project in terms of potential impact on the cultural resources is also presented. This section of the report includes discussion of the proposed Class III cultural resource inventory, information on the archaeological and traditional site protection plan, and considerations of indirect impact. A discussion of the Muddy Water Chaco Protection Site and State Register district, located adjacent to the lease, is also included. In addition, statements are made regarding the proposed treatment of sacred and other traditional sites and human burials and graves.

Information regarding the cultural resources of the proposed lease area and the surrounding district are also presented in this report. This discussion includes a records search and a summary definition of all previously documented sites in the proposed lease area. It also includes discussions of the Chacoan Muddy Water community, the Navajo occupation of the area, and information regarding known traditional and sacred sites near Crownpoint.

This report also includes additional information on Chacoan Anasazi and Navajo culture history and considers research topics that might be addressed as a result of the proposed cultural resource investigations. Other information presented in this report includes a copy of National Park Service information regarding the Muddy Water Protection Site and a copy of Public Law 96-550, Title V, known as the Chaco Culture Archeological Protection Act.

It is the purpose of this report to serve as a preliminary planning document for cultural resource management in the proposed HRI Unit No. 1 lease area. It is probable that the proposed mine would be developed at intervals over a period of years. Following the completion of a Class III inventory, specific management plans for each development phase would be formulated.



## CONCLUSION

The cultural resources-environmental assessment conducted for the proposed HRI Unit No. 1 lease area indicates that it is located within a cultural district of considerable significance. Indeed, the proposed lease is within the Chacoan Muddy Water community complex and is placed in direct proximity to the Muddy Water Chacoan Protection Site and State Cultural Properties Register District. The lease area is also the location of a rather extensive historical period Navajo occupation, and it has the potential to contain properties of sacred or traditional value. Numerous cultural properties that qualify for nomination to the National Register are clearly present in the lease area. Other sites that qualify for preservation under the American Indian Religious Freedom Act and the Navajo Nation Policy to Protect Traditional Cultural Properties are also likely to be present.

Any plans for mining activity within the lease area must be extremely sensitive to the cultural properties within the area. A management plan for the proposed lease area can, however, effect total avoidance of the cultural resources. This avoidance plan is possible given the flexible nature of the proposed in situ mining project. Following a systematic Class III cultural inventory and traditional site inquiry, all significant cultural properties within the lease area would be recognized as protection zones and the boundaries marked. A specific cultural resource management plan would then be developed and submitted to the Bureau of Indian Affairs and Navajo Nation Historic Preservation Department for approval. The limited subsurface disturbance in the area would be preceded by archaeological test excavations in case buried or concealed cultural remains are present, and all construction projects would be archaeologically monitored.

Mobil Oil conducted previous systematic drilling in and adjacent to the lease area, and the cultural resource avoidance project conducted by Dan Hurley from 1973 to 1980 was extremely successful. Given the implementation of the culture resource management plan outlined in this report, adverse impact to the cultural resources of the lease area would be negligible. Furthermore, the proposed study of cultural resources in the lease area would significantly contribute to our knowledge of the Chacoan community structure and recent Navajo history.

Staff Exhibit 3

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE PRESIDING OFFICER

In the Matter of	)	
	)	
HYDRO RESOURCES, INC.	)	Docket No. 40-8968-ML
2929 Coors Road, Suite 101	)	
Albuquerque, New Mexico 87120	)	

AFFIDAVIT OF ROBERT D. CARLSON

1. Robert D. Carlson, being duly sworn, state as follows:

1. I am competent to make this affidavit, and the factual statements herein are true and correct to the best of my knowledge, information, and belief.

2. I am employed by the U.S. Nuclear Regulatory Commission (NRC), in the Office of Nuclear Material Safety and Safeguards. I presently work in the Division of Waste Management's Uranium Recovery Branch. I am the Project Manager of Hydro Resources, Inc.'s (HRI's) proposed in situ leach (ISL) uranium mining project at Crownpoint, New Mexico, and have served in this capacity since August 1996. In my current position, I oversee all aspects of regulating HRI's license to operate its Crownpoint Project. As Project Manager, I managed the environmental and safety reviews of HRI's license application, and supervised the development of HRI's source materials license. I currently oversee the National Historic Preservation Act (NHPA) Section 106 process, relating to HRI's ISL project. I have worked at the NRC since March 1991, in the Division of Waste Management, in various project management capacities.

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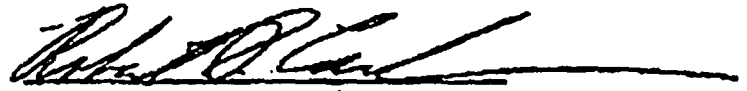
I believe my assumption in this regard to be a reasonable one, given the OAS Report's detailed and extensive discussions.

12. I further believe that the OAS Report, combined with all the earlier NHPA-related information obtained by HRI, as detailed in the affidavits of Eric Blinman and Lorraine Heartfield, attached as Attachments A and B to HRI's Response, constitute an adequate base of NHPA-related information, and fully supported issuing a license to HRI on January 5, 1998. I am in full agreement with the opinions expressed by Mr. Blinman and Ms. Heartfield in their affidavits. I incorporate those opinions by reference as if fully set forth herein, and I adopt those opinions as my own.

13. I fully realize and appreciate that the NHPA review process is far from concluded with respect to HRI's mining project. In compliance with NHPA guidance and procedures, I will continue to work with the New Mexico SHPO's office, in response to their letter dated November 20, 1997. See Exhibit 8, attached to the Staff's Response. The NRC staff is currently in on-going consultation with the New Mexico SHPO's office to make a determination of effect under Section 106 of NHPA. The results of this consultation will be forwarded for comment to all interested parties, Native American groups, and the public, before the staff finalizes its determination of effect. To date, on behalf of the NRC Staff, I believe I have engaged in a reasonable and good faith effort to comply with NHPA requirements, and I will continue to do so. As any new NHPA-related information becomes available, I will continue to forward that information to the NNHPD as I have in the past. The NHPA process will work better if the NNHPD

Sections 4.1 (Air Quality and Noise); 4.10 (Aesthetics); and 4.11 (Cultural Resources).  
Dr. Kelley's affidavit, at ¶ 4, states that she reviewed "the cultural resources portions"  
of the FEIS, so her review may only have encompassed FEIS Section 4.11.

16. The statements expressed above are true and correct to the best of my  
knowledge, information, and belief.

  
Robert D. Carlson

Sworn and subscribed to before me  
this 21<sup>st</sup> day of February, 1998

  
Notary Public  
My commission expires: \_\_\_\_\_

NOTARY PUBLIC  
My Commission Expires December 1, 1999





UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

May 20, 1998

Lynne Sebastian, Ph.D., State Historic  
Preservation Officer  
Historic Preservation Division  
Office of Cultural Affairs  
228 East Palace Avenue  
Santa Fe, NM 87501

SUBJECT: DETERMINATION OF EFFECT FOR THE CHURCH ROCK SECTION 8 AND  
CROWNPOINT SECTION 12 PORTIONS OF THE CROWNPOINT, NEW  
MEXICO PROJECT

Dear Dr. Sebastian:

In response to a letter from Glenna Dean of your staff, dated November 20, 1997, and pursuant to National Historic Preservation Act (NHPA) requirements, the staff of the U.S. Nuclear Regulatory Commission (NRC) is consulting with your office for purposes of making a determination of effect regarding Section 8, a portion of the proposed Hydro Resources, Incorporated (HRI) uranium mining project located about seven miles north of Church Rock, New Mexico (Sections 8 and 17, T16N, R16W), and Section 12 (T17N, R13W), an area located about two miles north of Crownpoint, New Mexico. These areas were surveyed, as reflected in the report prepared by the Museum of New Mexico's Office of Archaeological Studies *Cultural Resources Inventory* (1997) (OAS Report), which your office has reviewed. Separate NHPA consultations will be conducted prior to any additional undertakings which HRI may pursue under its NRC license.

The NRC staff concurs with the OAS Report regarding the archaeological sites on Section 8 and Section 12 found eligible for inclusion in the *National Register of Historic Places*. More specifically, the NRC staff agrees that these sites qualify as historic properties, and are thus eligible for inclusion, based on their potential to contribute important information to the understanding of regional prehistory or history (Criterion D for listing in the *National Register of Historic Places*, 36 CFR § 60.4). No traditional cultural properties were identified at or near any of the project areas identified above (Sections 8, 17, and 12).

The NRC staff has applied 36 CFR § 800.5 ("Assessing effects") and 36 CFR § 800.9 ("Criteria of effect and adverse effect"), and proposes to determine that any HRI undertakings on Sections 8 and 12, as described above, would have no effect on the historic properties located therein. The NRC staff seeks your concurrence on this proposed finding of no effect, which is based on the following:



- Sections 8 and 17 (T16N, R16W), and Section 12 (T17N, R13W) have been surveyed for archaeological resources and traditional cultural properties. Historic properties eligible for inclusion in the *National Register* were identified on Section 8 and Section 12. No such properties were identified on Section 17.
- All eligible and potentially eligible historic properties on Sections 8 and 12 would be fenced, as necessary, to preclude intrusion during any construction, mining, or other ground-disturbing activity. The recommended fencing (as identified in the OAS Report) would serve both as a mechanical equipment barrier and to discourage casual foot traffic trespass. Fencing would remain in place throughout construction and mining phases, and it would not be removed until after site reclamation processes have been concluded following completion of mining. This protective measure will assure that the characteristics of the historic properties will not be changed by the undertaking. If unanticipated circumstances arise such that an effect on any eligible or potentially eligible historic property cannot be avoided, consultation with your office and other appropriate parties will be reopened.
- All ground-disturbing activities within the vicinity of the historic properties (the areas as identified in the OAS Report) will be monitored by an archaeologist. Within the HRI project areas surveyed in the OAS Report, the site archaeologist will have authority to stop ground-disturbing activity in the event that previously undetected subsurface cultural resources are identified. The development of treatment protocols for the unexpected discovery of human remains will be initiated as necessary within the framework of 36 CFR § 800.11, the Native American Graves Protection and Repatriation Act, and existing New Mexico State regulations or Navajo Nation regulations (as applicable) regarding treatment of unmarked burials and protection of human remains.
- As discussed in the OAS Report, adequate consultation with local traditional practitioners has occurred and no traditional cultural properties have been identified in or near Sections 8, 17, and 12.

As reflected in the enclosed letter to Dr. Alan Downer, the Navajo Nation's Historic Preservation Officer, dated May 20, 1998, the NRC staff is consulting with his office regarding Section 17, the portion of HRI's Church Rock site located on land held in trust for the Navajo Nation. The NRC staff will consider any written comments your office submits within 15 days of your receipt of this letter with respect to the Section 17 findings discussed in the enclosed letter.

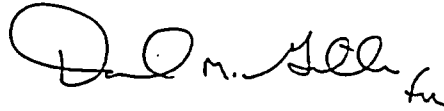
If your office has any questions, please contact Mr. Robert Carlson, NRC's Project Manager of the HRI mining project, at (301) 415-8165. If no response from your office is received within 30 days of your receipt of this letter with respect to Sections 8 and 12, the NRC staff will assume that your office concurs in the proposed determination that any HRI undertakings on Sections 8 and 12 would have no effect on the historic properties located there. If your office so concurs,

Dr. L. Sebastian

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or does not otherwise submit any objections to the NRC staff's proposed determination, then pursuant to 36.CER. § 800.5 (b), the staff would consider the NHPA process to be concluded with respect to Sections 8 and 12.

Sincerely,

A handwritten signature in black ink, appearing to read "Joe M. Holonich". The signature is written in a cursive style with a large initial "J" and "H".

Joseph J. Holonich, Chief  
Uranium Recovery Branch  
Division of Waste Management  
Office of Nuclear Material Safety  
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Enclosure: As stated

cc: Service list attached

Dr. L. Sebastian

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cc: for letter dated 5/20/98

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-5-

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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD PANEL

Before Chief Administrative Judge Peter B. Bloch, Presiding Officer

In the Matter of )  
)  
)

HYDRO RESOURCES, INC. )  
2929 Coors Road, Suite 101 )  
Albuquerque, NM 87120 )  
)  
)

Docket No. 40-8968-ML

ASLBP No. 95-706-01-ML

TESTIMONY OF WILLIAM A. DODGE

On behalf of Eastern Navajo Diné Against Uranium Mining ("ENDAUM") and Southwest Research and Information Center ("SRIC"), William A. Dodge submits the following testimony regarding cultural resources issues regarding Hydro Resources Inc.'s ("HRI's") amended application for a source materials license.

**Q. 1. Please state your name and qualifications.**

**A.1.** My name is William A. Dodge. I am a Cultural Resources Consultant providing services in the areas of compliance with the National Historic Preservation Act (NHPA), the Native American Graves Protection and Repatriation Act (NAPGRA), the National Environmental Policy Act (NEPA), and related historic preservation and heritage conservation issues. I have over 20 years professional experience in archaeological and anthropological research, with an emphasis on cultural resource management and historic preservation law and policy. The principal focus of my work has been in the Southwest United States, where I have been employed by the Arizona State Museum, National Park Service, Pueblo of Zuni, the Bureau of Indian Affairs, and the Indian Health Service. A



copy of my resume is attached to this testimony as Exhibit A.

**Q. 2. What is the purpose of your testimony?**

**A.2.** I have been asked to describe the incomplete status of the National Historic Preservation Act (NHPA) Section 106 historic properties review process for the proposed Hydro Resources Inc. Crownpoint Uranium Solution Mine at Crownpoint and Church Rock, New Mexico, and to provide my professional opinion that the review conducted to date is inadequate to ensure that properties eligible for listing in the National Register of Historic Places are not destroyed or disturbed before they have been properly identified and subjected to the procedural protections of the NHPA.

**Q. 3. What materials did you review in support of your evaluation?**

**A.3.** I have reviewed the following cultural resources inventory reports and cultural resource management plans concerning the proposed Crownpoint Project:

"Archaeological Clearance Survey Report of a Road Improvement Right-of-Way Northwest of Crownpoint, New Mexico," by J. Lee Correll, Navajo Tribal Museum (9/29/76); "An Intensive Archaeological Clearance Survey of Four Sections of Indian Allotment Land Conducted for United Nuclear Corporation," by Dabney Ford and Suzanne DeHoff, Report 77-SJC-078, New Mexico State University (6/77); "The URI Archaeological Protection Program for the Church Rock Mine-Survey and Preservation of the Archaeological Antiquities," by Dan Hurley and Michael P. Marshall (7/88); "The URI Crownpoint Cultural Resources Survey, A Class III Inventory," by Michael P. Marshall, Cibola Research Report No. 38 (6/28/89); "A Cultural Resources-

Environmental Assessment and Management Plan for the Proposed Hydro Resources, Inc., Unit No. 1 Lease in the Crownpoint Area of the Eastern Navajo District, New Mexico," by Michael P. Marshall, Cibola Research Report No. 52 (12/15/91); "A Cultural Resources-Environmental Assessment and Management Plan for the Proposed Hydro Resources, Inc., Crownpoint Lease in the Eastern Navajo District, New Mexico," by Michael P. Marshall, Cibola Research Report No. 57 (9/15/92); "Report on Sacred and Traditional Places for Hydro Resources, Inc." by Earnest C. Becenti, Sr. (1996); and "Cultural Resources Inventory of Proposed Uranium Solution Extraction and Monitoring Facilities at the Church Rock Site and of Proposed Surface Irrigation Facilities North of the Crownpoint Site, McKinley County, New Mexico," by Eric Blinman, Archaeology Notes 214, Museum of New Mexico, Office of Archaeological Studies (1997). I use the term "cultural resources inventory" to include the full range of cultural resources: archaeological sites, historic buildings and structures, cultural landscapes, and traditional cultural properties, which is consistent with most historic properties compliance specialists.

I also reviewed excerpts of "Final Environmental Impact Statement to Construct and Operate the Crownpoint Uranium Solution Mining Project, Crownpoint, New Mexico," U.S. Nuclear Regulatory Commission (2/97); "Crownpoint Uranium Project Consolidated Operations Plan, Revision 2.0" HRI, Inc. (8/15/97); and "Safety Evaluation Report" (New Mexico Uranium Mining Project), NRC (12/97).

I have also reviewed letters, supplemental information requests and responses, and



technical reports written between 1993 and 1997 relating to cultural resources that are within the proposed project area. I have review the set of letters sent on May 20, 1998 by the NRC Staff to Roy Bernal, Chairman, All Pueblo Indian Council, Charles Long, Crownpoint Chapter President, Herbert Benally, Churchrock Chapter President, Reginald T. Pasqual, Acoma Pueblo Governor, Roland Johnson, Laguna Pueblo Governor, the BIA, the BLM, Joseph Dishta, Director, Pueblo of Zuni Heritage and Historic Preservation Office, and Leigh Jenkins, Director of Hopi Cultural Preservation Office (Exhibit B), the response letters received by the NRC (Exhibit C), and the letter referencing the responses from the NRC to Richard F. Clement Jr., HRI President (July 10, 1998) (Exhibit D).

On the dates indicated in parenthesis, I spoke either in person or on the telephone to the following people and questioned each of them on the status of the Section 106 process for the Crownpoint Uranium Solution Mining Project: Dr. Alan Downer, Navajo Nation Tribal Historic Preservation Officer (12/22/97); Mr. Joe Dishta, Director, Pueblo of Zuni, Heritage and Historic Preservation Office (12/22/97); Mr. Kurt Dongoske, Tribal Archaeologist, Hopi Cultural Preservation Office (12/29/97); Dr. Glenna Dean, State Archaeologist, New Mexico Office of Cultural Affairs, Historic Preservation Division (12/30/97); and Mr. Alan Stanfill, historic preservation specialist, Denver Office, Advisory Council on Historic Preservation (12/22/97).

Q. 4. What are the general requirements of Section 106 of the NHPA?

A.4. Section 106 of the NHPA requires Federal agencies with jurisdiction over federal,

federally assisted, or federally licensed undertakings to take into account the effects of their undertakings on properties included in or eligible for inclusion in the National Register of Historic Places, prior to the expenditure or license issuance. 16 U.S.C. § 470f; 36 C.F.R. § 800.3(c). Section 106 also requires agencies to afford the Advisory Council the opportunity to comment on such undertakings. Id. The Advisory Council has established regulations for federal agencies to follow in complying with Section 106. 36 CFR Part 800 (Protection of Historic Properties). Participation by local governments, Indian tribes, and interested members of the public is also an important part of the Section 106 process. See, e.g., 36 C.F.R. §§ 800.1(c)(2). The Advisory Council has recognized the importance of Indian tribes in the regulatory process by virtue of their inherent knowledge of cultural resources located within their reservation, or on land used by them historically, and their interest in protecting these resources. It is further accepted that these resources may hold cultural significance for a tribe that is not obvious to the non-tribal researcher or the federal agency. Similarly, some of these resources, particularly traditional cultural properties, may not even be identical except by selected members of a tribe.

**a. General background of Section 106 of the NHPA**

The regulations define "historic property" as any prehistoric or historic site, district, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places. 36 CFR § 800.2(e). This includes those properties formally determined as such by the Secretary of the Interior and all other properties that meet

National Register criteria. The National Register contains a wide variety of property types including historic buildings and structures, archaeological sites, historic landscapes, and traditional cultural properties (TCPs). The National Register criteria are stated in 36 CFR Part 60. An "undertaking" consists of any project, activity, or program that can result in changes in the character or use of historic properties, if any such historic properties are located within the area of potential effects. 36 CFR § 800.2(o). The "area of potential effects" is the geographic area or areas within which an undertaking may cause changes in the character or use of historic properties, if any such properties exist. 36 CFR § 800.2(c).

**b. 1992 amendments to the NHPA**

In 1992, the NHPA was amended in part to give Indian tribes a larger role in the Section 106 consultation process. The amended Act authorizes tribes to assume the functions of a State Historic Preservation Officer (SHPO) discussed below with respect to tribal lands. 16 U.S.C. § 470a(d)(2). Tribal lands include all lands within the exterior boundaries of any Indian reservation and all dependent Indian communities. 16 U.S.C. § 470w(14). In addition, the amended statute reemphasizes the fact that properties of traditional religious and cultural importance to a tribe (i.e., "traditional cultural properties"), may be determined to be eligible for inclusion in the National Register. 16 U.S.C. § 470a(d)(6)(A). Furthermore, the amended Act requires that a Federal agency shall consult with any Indian tribe that attaches religious and cultural significance to such properties. 16 U.S.C. § 470a(d)(6)(B). The amended Act's concern for TCPs was

supplemented by the publication of National Park Service "National Register Bulletin 38" which presented guidelines for evaluating and documenting TCPs. Bulletin 38 defines a TCP as a property that is eligible for inclusion in the National Register because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community. Bulletin 38 has become the accepted standard for Section 106 compliance with respect to TCPs among most historic preservation specialists. In addition, the Tenth Circuit Court of Appeals cited Bulletin 38 in its decision on how federal agencies should consult with Indian tribes on matters pertaining to TCPs. Pueblo of Sandia v. United States, 50 F.3d 856, 861-862 (10<sup>th</sup> Cir. 1995).

**c. Section 106 four step compliance process**

As guided by 36 CFR Part 800, the Section 106 compliance process requires a Federal agency to take four steps before approving a proposed undertaking: (1) identify potential historic properties, (2) evaluate the eligibility of the properties for inclusion in the National Register, (3) determine the effects of its undertaking upon listed or eligible historic properties, and (4) if necessary, develop a plan to avoid or minimize any effects.

Identifying the historic properties (step 1) requires that the agency begin by assessing the information needed to locate historic properties. 36 CFR § 800.4(a). This information needs assessment must be done in consultation with the SHPO, Indian tribes, and other persons or organizations likely to have knowledge of historic properties in the project area to determine whether further actions, such as field surveys, will be required to

identify properties. Based on this information needs assessment, the agency must then make a "reasonable and good faith effort" in consultation with the SHPO to identify historic properties and gather enough information for the next step, the evaluation of the eligibility of these properties for National Register listing. 36 CFR § 800.4(b).

If historic properties are located, then the agency, in consultation with the SHPO, must apply the National Register Criteria to determine if the properties are eligible (step 2). The 1992 amendments to NHPA also require consultation with the appropriate Indian tribe(s) regarding the evaluation of properties as TCPs. Although the Advisory Council has not yet issued revisions to its regulations to account for the 1992 statutory amendments, compliance with Section 106 requires consultation with tribes that have cultural affiliation with TCPs to determine the eligibility of those TCPs.

If eligible properties are found, the agency, again in consultation with the SHPO and the appropriate tribes, must assess the effects of the undertaking on the properties (step 3). Advisory Council regulations at 36 CFR § 800.9 provide the agency with a set of criteria with which to determine whether the undertaking will have either (1) No Effect, (2) No Adverse Effect, or (3) Adverse Effect. These findings must be documented. 36 C.F.R. § 800.8.

If an undertaking is found to have no effect, the agency must notify the SHPO and interested persons, and provide the SHPO with an opportunity to respond. 36 C.F.R. § 800.5(b). If the undertaking is found to have an effect on historic properties, the agency must consult with the SHPO, the Advisory Council, and the appropriate tribes to

determine whether the effect is adverse. 36 C.F.R. §§ 800.5© and (d)(2). If the undertaking is found to have an adverse effect on historic properties, the agency must consult with the SHPO, the Advisory Council, and the appropriate tribes to develop a plan to avoid or minimize any effects (step 4). 36 CFR §§ 800.5(d)(2) and 800.5(e)(4). If these parties come to agreement on a plan, they enter into a memorandum of agreement that spells out how the agency will avoid or reduce the effects of the undertaking on the historic properties. 36 CFR § 800.5(e)(4). Completion and acceptance of a memorandum of agreement by the Advisory Council usually signals the completion of the Section 106 consultation process. When there is no agreement on a plan, the Advisory Council regulations require the Agency to take specified steps to obtain the Advisory Council's comments. 36 CFR § 800.6.

**Q.5. Please describe the status of the NEPA review for the Crownpoint Project.**

**A.5.** The proposed licensing of the HRI project constitutes an undertaking that is subject to Section 106 and the Advisory Council's regulations, as acknowledged in the FEIS at page 3-73 and in correspondence by NRC Staff that I reviewed. Although the NRC has issued a license for the entire Crownpoint Project, HRI and the Staff have taken a piecemeal approach to the NHPA review, and the NHPA process remains incomplete for a large portion of the project area. For the Crownpoint and Unit 1 areas, which make up most of the geographical area of the project, the NRC has just started the Section 106 process, namely steps 1 and 2 (identification and evaluation of eligibility). For these areas, the NRC has made no determination regarding whether or not there are adverse effects on

any historic or cultural properties.

In addition, Mr. Stanfill of the Advisory Council checked the Advisory Council's Denver Office files at my request and found no information regarding this project. The Denver Office is the point of contact with the Advisory Council for federal agencies concerning undertakings in New Mexico.

Only with respect to Sections 8 and 17 has the NRC Staff made a determination regarding the effects of the Crownpoint Project on historic properties. The determination is reflected in the form letter, all dated May 20, 1998, sent by the NRC to Mr. Leigh Jenkins, Director, Hopi Cultural Preservation Office; Mr. Charles Long, President, Crownpoint Chapter, Navajo Nation; Mr. Herbert Benally, President, Churchrock Chapter, Navajo Nation; Mr. Reginald T. Pasqual, Governor, Pueblo of Acoma; Mr. Ronald Johnson, Governor, Pueblo of Laguna; Mr. Joseph Dishta, Director, Pueblo of Zuni Heritage and Historic Preservation Office. Exhibit B. As I will discuss later in my testimony, I do not believe that the finding of no effect is adequate to satisfy the NHPA.

**Q. 6. Has the Section 106 review process for the proposed HRI project been adequate?**

**A.6.** I do not believe the Section 106 review process for the Crownpoint Project is adequate, in several respects. First, the NHPA review has not been completed for all areas of potential effect, i.e., areas for which operations have been licensed by the NRC and that may be disturbed by HRI. Second, to the extent that the review has been completed, for Sections 8 and 17, it is inadequate to comply with the requirements of the NHPA. Third,

for all of the project, including Sections 8 and 17, Unit 1, and Crownpoint, the NRC has failed to consult adequately with Indian tribes. Finally, the documentation supporting the Section 106 review is inadequate.

**Q.7. Please explain the basis for your conclusion that the NHPA review has not been completed for all areas of potential effect.**

**A.7.** In order to be adequate, the Section 106 review must properly define the area of potential effects, and all four steps must be completed for the entire area of potential effects before the undertaking may be permitted. See 36 C.F.R. § 800.3(c).

In this case, the NRC has not complied with the NHPA because it has not completed the four steps required for the Section 106 process prior to issuance of the license, as required by the NHPA. 16 U.S.C. § 470f. Thus, the NRC has not taken the steps necessary to ensure procedural protection of listed or eligible historic properties affected by the Crownpoint Project before licensing the HRI project, as required by the NHPA. It is my professional opinion that in the absence of a completed Section 106 review process, there is a significant risk that HRI's construction and operation activities will destroy, damage or disturb cultural resources before they can be identified or properly protected. Well before mining begins, building of access roads, construction of well pads, and development of facilities to support the actual mining activity are substantially likely to damage, destroy, and intrude upon archeological sites and TCPs and thereby have grave adverse effects on the cultural life ways of both Navajo and Pueblo peoples.

The NRC has made inconsistent representations regarding the areas to be



developed during the first five years of operation, and therefore to be covered by the Section 106 review.—Mr. Gillen of the NRC indicated in Attachments C and D to his October 2, 1996 letter to the NMSHPO that the first five-year project area to be covered by the initial Section 106 review would include portions of the Church Rock, Crownpoint, and Unit 1 sites comprising the proposed project. This intention is repeated in Mr. Holonich's January 31, 1997 letter to Dr. Downer. Similarly, according to HRI's Consolidated Operations Plan Revision 2.0 dated August 15, 1997, mining is scheduled to commence at the Church Rock site in the first quarter of 1998, at the Unit 1 site in the first quarter of 1999, and at the Crownpoint site in the first quarter of 2000. COP Revision 2.0, Figure 1.4-1. HRI stated in its Response to Scheduling Conference Briefs of all Petitioners, that mining is scheduled to commence at Church Rock Section 8 in the year 2000, at Church Rock Section 17 and Unit 1 in the year 2002 and at Crownpoint in the year 2004. HRI's Response to Scheduling Conference Briefs of all Petitioners, (September 9, 1998) Attachment A at 3. The FEIS also indicates that portions of the Crownpoint and Unit 1 mining units will be developed in the initial five year mine plan. FEIS Figure 2.11 at 2-30. In addition, the central processing plant for all three mine sites is located in Crownpoint.

In contrast to these representations, in June of 1997, Joseph Holonich of the NRC represented to the NMSHPO that "a cultural resources survey of Section 12 (T17N R13W) and portions of Sections 7 and 18 [sic, 8 and 17] (T16N R16W) has been conducted" and that "these are the areas that HRI proposes to initially develop." Letter

from Joseph J. Holonich, NRC, to Lynne Sebastian, NMSHPO (June 19, 1997). Sections 8 and 17 correspond to the Church Rock mining site, and Section 12 is a proposed wastewater land application area in Crownpoint. According to Mr Holonich, "although additional areas were initially proposed for development during the first five year period of the project, these areas are either no longer planned for development during this time frame (e.g., Crownpoint), or were difficult to gain access to because property leases have not been executed (eg., Unit 1). Consultation regarding these areas will be conducted at a later date." Mr. Holonich further stated that the Museum of New Mexico Report documenting the cultural resources survey of Sections 12 and portions of 8 and 17 "will serve as the basis of a determination of potential effect under Section 106 of the NHPA." Thus, contrary to the NRC's other representations that all three sites would be developed in the first five years, and therefore reviewed pursuant to Section 106, the NRC actually set out to study only parts of two of the sites.

Mr. Holonich's June 19, 1997, statements to the SHPO about the areas that will initially be developed are inconsistent with the FEIS for the project and HRI's later released Consolidated Operations Plan Revision 2.0. However, land within the Unit 1 site (portions of Sections 15, 16, 21, 22, and 23, Township 17 North, Range 13 West) and Crownpoint site (portions of Sections 19, 24, and 25, Township 17 North, Range 13 West, and Section 29, Township 17 North, Range 12 West) as described in the FEIS at pages 2-26 and 2-28 is omitted from the area that the NRC intends to cover in the Section 106 process for this first five year license issuance. Thus, it appears that the NRC has

omitted from its cultural resources survey significant areas slated for development during the first five years of HRI's operation.

Similarly, it appears that the Church Rock waste application areas (see COP Revision 2.0 at 42-43) were not included in the cultural resources inventory reports. It is my understanding that the NRC is not concerned about this because HRI would need to make a license application to land-apply liquid waste. In my opinion, this piecemeal approach is extremely short-sighted and inconsistent with the NHPA's goal of including historic and cultural values into the decision making process. By allowing the front end of the Crownpoint Project to go ahead without evaluating the impacts of the inevitable back end, the NRC weights the decisionmaking process in favor of development rather than protection of historic and cultural properties. By not considering the effects of land application of uranium-tainted wastewater on historic and cultural resources in the proposed land application area, the NRC appears to be foreclosing its options with regard to the adequate treatment of historic properties. What if certain historic properties are found at a later date on the land application site? Impacts on these properties will be unavoidable if the project is beyond a point at which significant changes or abandonment of the project can be taken? Such questions cannot, in my opinion, wait for an answer. They must be answered "up front" by identifying all potentially affected historic properties in all potentially affected areas.

In addition, in my professional opinion, the area of potential effects is likely to extend beyond the project boundaries to include TCPs in the vicinity of the project, which

may be adversely affected by visual or noise intrusion or alteration of their setting. 36

CFR § 800.4. In HRI's Response to Supplemental Information Request attached to the letter dated April 10, 1996, from Mark Pelizza, HRI, to Daniel Gillen, NRC, HRI contends that TCPs will not be impacted by the undertaking because "all traditional locations . . . lie north or west of the mine field boundaries." Similarly, HRI states that, "(1) none of the potential resources [TCPs] are on property owned or leased by HRI, Inc., and thus, (2) none of the properties are within the area to be impacted by the proposed well field." In accordance with the definition of "area of potential effects" cited in paragraph 9 above, the fact that there are no TCPs within the proposed project boundaries is not relevant to the question of whether there will be effects to TCPs. The agency must determine how their project will affect the integrity, setting, feeling, or association of such properties regardless of whether or not they are within a project's boundaries. The area of potential effects must be defined broadly enough to consider the visual, auditory, or atmospheric effects on historic properties which may lie outside the project boundaries but still be affected by project impacts. My opinion in this regard is supported by statements made by Dr. Downer in a letter dated October 31, 1996, to the NRC. Therefore, the area of review designated by the NRC does not comply with Section 106.

**Q.8. Do you believe that the NRC has provided adequate measures for the protection of historic properties under the license?**

**A.8.** As I have stated above, I believe the Section 106 process should have been completed for the entire Crownpoint Project before the license was issued. Even if the

NRC's piecemeal approach were acceptable, however, I do not believe that the NRC has taken adequate measures to protect cultural and historic properties pending completion of the Section 106 process. I have reviewed the following proposed license condition stated in the FEIS at 4-112 and repeated in the Consolidated Operations Plan at 23:

the NRC Staff recommend that if a license is issued it be conditioned on the development and implementation of a final cultural resources management plan for all mineral operating lease areas and other land affected by licensed activities. The plan would be developed pursuant to the National Historic Preservation Act Section 106 review and consultation process and would provide specific procedures to implement HRI's policy of avoiding cultural resources. The plan would include archaeological and traditional cultural property surveys of all lease areas; identification of protection areas where human activity would be prohibited; archeological testing (by an archaeologist contracted to HRI and holding appropriate permits from the Navajo Nation and the State of New Mexico); and archaeological monitoring during all ground disturbing construction, drilling, operation, and reclamation activities.

In my professional opinion, the proposed license condition is not equivalent to completion of the Section 106 process prior to issuance of the license. The Section 106 process calls for a logical step by step progression to identify and evaluate historic properties and then determine what effects the undertaking may have on them. Only after the effects are determined can a treatment plan and memorandum of agreement be developed to specifically address ways to avoid or minimize any effects. The license condition makes an *a priori* determination that all effects can be avoided. The 106 process is not designed for such "boiler plate" decisions, but instead relies on a consultative process among all interested parties to try and reach agreement.

HRI, Inc. has prepared a "Cultural Resources Management Plan" for the proposed

project. A letter from HRI to Leigh Jenkins, Hopi Cultural Preservation Office, dated May 16, 1996, indicates that this report has been distributed to the Hopi Tribe. In my professional opinion, the preparation of this plan, which calls for the avoidance of adverse effects on historic properties, is premature at this stage in the 106 process. Such a plan, which is usually called a "treatment plan" cannot be properly prepared before historic properties have been completely identified. In this case, as discussed below, Navajo TCPs have not been fully identified and there has not been a good faith effort to identify TCPs significant to the Hopi, Zuni, and other tribes. Moreover, a cultural resource management plan is not the equivalent of the memorandum of agreement required by the regulations. The memorandum of agreement requires that all consulting parties have been satisfied that historic properties have been identified and evaluated, and that a treatment plan to take into account the effects of the undertaking on identified properties has been agreed upon. It is my professional opinion that this project is still a long way from the memorandum of agreement phase.

**Q.9. Please describe the basis for your opinion that to the extent that the Section 106 review has been completed, for Church Rock Sections 8 and 17, it is inadequate to comply with the requirements of the NHPA.**

**A.9.** There are several reasons that I believe the review conducted by the NRC Staff on Sections 8 and 17 is inadequate. First, the NRC's "no effects" finding of May 20, 1998, is applied only to archaeological sites. Second, the NRC did not do an adequate job of consulting with Indian tribes regarding these archaeological sites and any existing

traditional cultural properties. My opinion regarding the inadequate consultation with Indian tribes also relates to the entire project, for which the NRC has sent letters to the Navajo, Hopi, and Zuni tribes.

**Q.10. Please explain the basis for your opinion that the review conducted by the NRC Staff on Sections 8 and 17 is not supported by adequate documentation.**

**A.10.** In my professional opinion, the reports relied on by the NRC for the identification of eligible historic properties are incomplete. The NRC is only using the Museum of New Mexico report; however, cultural resources reports for the entire project area should be considered in a proper effort to identify and evaluate historic properties that the project may affect. Only the Museum of New Mexico report and the Marshall report no. 38, in my professional opinion, adequately document the archaeological resources located within their respective scopes of work. The adequacy of the Ford and DeHoff report has already been called into question by the NRC (Mr. Holonich's letter to Dr. Downer dated January 31, 1997). And the Correll report, in my opinion, does not meet contemporary professional standards. From my understanding of the area of effects for this project, it appears that the reports prepared to date do not adequately cover the project area:

The Marshall reports 52 and 57, are planning documents intended to be used by HRI not for inventory survey, but as guides to describing known cultural resources (particularly archaeological sites) and to outline a plan for future data collection and analysis. They, in fact, form the basis for the HRI Cultural Resources Management Plan referred to in paragraph 28 above. These reports contain some statements regarding

Pueblo-affiliated traditional cultural properties that cannot be supported by fact. For instance, both reports call for additional research into Navajo TCPs; but have identical statements that, "Pueblo Anasazi sacred sites may once have existed in the area, but it is very unlikely that any of these sites are maintained by a living community." This is a highly speculative conclusion and is not supported by my knowledge of the Hopi Tribe's and Pueblo of Zuni's active claims to ancestral lands in the project area. Marshall further states that, "In the unlikely event that such places are still maintained by Pueblo populations, it is probable that Navajo residents of the area will have knowledge of this use." The same generalization is found in the Becenti report in which he claims there is no evidence of religious use of the area by "other Indian tribes or pueblos." In my professional opinion, only the religious and cultural leaders of the Hopi, Zuni, and other Indian tribes are qualified to determine whether there are TCPs in the project's area of potential effects. Based on the documentation provided me there is no indication that either Mr. Marshall or Mr. Becenti contacted the relevant tribes prior to making these statements.

The 1997 Museum of New Mexico report, which the NRC indicates is the basis for their Section 106 review, reexamines sites found during previous surveys, describes new archeological sites found, and addresses identification of Navajo traditional cultural properties. It does not, however, consider the presence of non-Navajo TCPs, nor does it explicitly describe its field methodology as it pertains to the identification of Navajo sites. For instance, while the report identifies the traditional cultural practitioners interviewed



about TCPs, it does not state how these people were chosen for the interview, nor does it tell us if the interviewees live in the project area. Both are important facts relating to the relevancy of their information and the adequacy of the identification process.

**Q.11. Please explain the basis for your opinion that the NRC has failed to consult adequately with Indian tribes.**

**A.11.** In my professional opinion, the NRC has not done an adequate job of consulting with Indian tribes. This has been true throughout the process, for all of the areas of the Crownpoint Project. In addition, the NRC has to date failed to adequately consult with tribes, other than Navajo, regarding traditional cultural properties affiliated with their respective cultures that may exist within the project area. Although the NRC has made initial contact by letter with the Hopi and Zuni tribes, my conversations with tribal representatives indicate they are still waiting for the NRC to continue consultation on traditional cultural properties. In my opinion, the letters exchanged to date are, at best, merely an introductory stage of such consultations and the tribes are reasonably still awaiting consultation. Identification and evaluation of TCPs (steps 1 and 2) cannot be considered complete before knowledgeable traditional cultural practitioners of the Hopi, Zuni, Acoma, and Laguna tribes are provided the opportunity to conduct fieldwork in the project area.

I have reviewed the letter report from Dr. Lorraine Heartfield, cultural resources consultant, to Mr. Mark Pelizza, HRI, Inc., dated April 30, 1996, in which Dr. Heartfield states that she sent letters to the pueblos of Hopi, Zuni, Acoma, and Laguna, and to the

All Indian Pueblo Council asking them to identify TCPs in or near the project location. Based on my professional experience with the Section 106 process and knowledge of Bulletin 38, this does not constitute "consultation" with the tribes regarding TCPs. Pueblo governors or chairmen are often not the primary source of information regarding TCPs. Knowledgeable individuals, who are usually religious and cultural leaders and are usually referred to as traditional cultural practitioners, are the persons who should be questioned. Bulletin 38 at 6-7 notes that often these people are not involved in the tribe's political structure. Therefore, it is recommended that the political leaders direct the agency to those knowledgeable people. It is also customary and important, as emphasized in Bulletin 38 at 7-8, for the appropriate traditional cultural practitioners to visit the project area to identify and evaluate TCPs. It is usually important that the practitioners confer with one another during a site visit in order to fully recognize the importance of a place. Even then they are sometimes reluctant to disclose the exact location or importance of the place due to the spiritual power it might have. Thus, to rely on a writing a letter to tribes as the means of identifying TCPs is not adequate to comply with Section 106.

My opinion that consultation with the appropriate tribes has not been properly conducted is supported by correspondence to HRI from Zuni and Hopi officials. A letter from Roger Anyon, then Director of the Zuni Heritage and Historic Preservation Office, to HRI, Inc. dated March 28, 1996, states that fieldwork by the Zuni Cultural Resources Advisory Team would be required in order to assess and evaluate TCPs. The Hopi

Cultural Preservation Office also sent a letter to HRI, Inc., dated April 25, 1996, stating that a number of Hopi clans have ties to the region of the proposed project, and the Hopi looked forward to working cooperatively with HRI in the future. In my professional opinion, both of these letters demonstrate a concern by each tribe that significant TCPs may exist within the area of potential effects of the project and indicate that they expect further discussion and fieldwork to take place.

In my professional experience, federal agency consultation with tribes is guided by President Clinton's memorandum of April 26, 1996, "Government-to-Government Relations with Native American Tribal Governments," which directs the Federal agency, not the project proponent, to initiate consultation with tribes. It has been my experience that many tribes do not consider consultation to have begun until the appropriate agency official has contacted their governmental leadership. Then the two sides can decide who within the federal agency should talk to whom within the tribal socio-political structure.

In this case, the documents I have reviewed reflect that, although HRI called tribal officials on February 22, 1996 as a result of a NRC inquiry, the NRC's first communication with officials of the Hopi, Zuni, Acoma, and Laguna Tribes regarding Section 106 consultation was by a letter dated October 2, 1996, which appears in Appendix C of the FEIS. This is a form letter that states that the addressees "have either expressed interest, or the NRC has determined that you may have an interest in the consultations being conducted for the Section 106 review process" and states that "we will

keep you informed as the review process proceeds." In my professional opinion, this letter is an insult to tribal sovereignty that flies in the face of the presidential memorandum. That letter further states that NRC initiated the Section 106 review process by a letter to the New Mexico SHPO of the same date. Subsequently, by letter dated January 31, 1997, to Dr. Alan S. Downer of the Navajo Nation Historic Preservation Department from Joseph J. Holonich, and copied to Navajo, Hopi, Zuni, Acoma, and Laguna tribal officials, the NRC describes survey work to be done or underway to remedy shortcomings in the first step of the Section 106 process (identification of historic properties) and requests a response "that would include, as necessary, any direction or advice about advancing the review process and comments about the intended or ongoing survey work." Again, to write one tribe and copy the other tribes is an insulting gesture on the NRC's part. Furthermore, from my review of the correspondence identified above, no further discussions have taken place regarding the identification of TCPs despite the Zuni and Hopi tribes' request for further consultation. Subsequent correspondence from the NRC merely asked the tribes to review and comment on the 1997 Museum of New Mexico report.

In my professional opinion, the tribes could reasonably assume from this correspondence that the NRC would continue to update them and would consult with them at each step in the Section 106 process. In particular, the Navajo Nation, Hopi, and Zuni tribal officials had previously conveyed to NRC in writing that they expected to be active participants in the 106 process at its earliest stages. In my professional opinion, the

apparent lack of a written response to the NRC's January 31, 1997, letter by the Navajo Nation and to the NRC letters by other tribal officials would not be sufficient grounds for the NRC to halt further efforts to consult those tribes in good faith as required by Section 106 and the Advisory Council's regulations. In my professional opinion, the correspondence by the NRC and HRI to the Zuni, Hopi, Laguna, and Acoma tribes that I have reviewed, and the limited efforts to contact those tribes described by Lorraine Heartfield in her report of April 30, 1996, only represent the initial stage of a proper consultation effort.

In the January 31, 1997 letter from Joseph J. Holonich, NRC, to Alan Downer, Navajo Nation, the NRC admits to not having completed archaeological surveys of the project area and having an absence of information about traditional cultural properties. The Museum of New Mexico Report remedied only partially the need for more archaeological survey work because, as discussed above, some locations where ground disturbance is proposed have not been surveyed. As for the lack of TCP information, it is clear that the NRC has not rectified this situation. In fact, Mr. Holonich's statement that, "Cultural resource specialists of some of the aforementioned tribes and pueblos [Navajo, Hopi, Zuni, Acoma, Laguna] have indicated that the additional archaeological surveys may provide information about traditional cultural properties in the area," clearly demonstrates that the NRC does not understand the issues or needs associated with identifying traditional cultural properties. Rarely do archaeologists have the training or experience to identify these properties. It is generally accepted throughout the profession that

ethnographers and tribal religious and cultural practitioners are the ones best suited to identify TCPs.

The NRC letters of May 20, 1998 only request comments regarding the NRC's no effect determination on archaeological sites based on the OAS report. These letters do not, in my opinion, adequately address the question of TCP identification and evaluation by non-Navajo tribes. The letters I examined do not in any new or meaningful manner address the question of whether or not these tribes have identified, or wish to pursue identification efforts, TCPs within the proposed area of potential effects. Furthermore, these letters do not clarify the issues pertaining to whether or not the NRC is adequately complying with the spirit of the Section 106 review process by not considering the entire area of potential effects that will eventually be a part of this project.

My conversations with tribal officials confirmed that they had not been consulted in accordance with Bulletin 38. Mr. Dishta of the Zuni Tribe was not up to date on the status of the project, but reiterated Zuni's concerns with the area since it is considered aboriginal land by the tribe. In my professional experience, Zuni aboriginal lands have a high potential to contain Zuni TCPs. Consistent with Mr. Anyon's letter of March 28, 1996, Mr. Dishta stated that he expects the NRC to provide funds for the Zuni Cultural Resources Advisory Team to visit the area.

Mr. Dongoske of the Hopi Tribe stated that he knew of the project from his attendance at a meeting in Crownpoint in 1995. He stated that the Hopi Tribe is awaiting further consultation efforts from the NRC or HRI and that it expects to visit the project

area to complete identification and evaluation efforts.

More recently, I had telephone conversations with Mr. Loren Panteah, the new Director of the Zuni Heritage and Historic Preservation Office on November 4, 1998; Dr. Glenna Dean, State Archaeologist, New Mexico Office of Cultural Affairs, Historic Preservation Division (SHPO office), on November 4, 1998; and Dr. Alan Downer, Director of the Navajo Nation Historic Preservation Department, on November 13, 1998.

Based on these contacts it is still my opinion that the Hopi and Zuni tribes have not been properly consulted regarding potential TCPs within the proposed project area. In addition, it is my opinion that the Navajo Nation Historic Preservation Department and the New Mexico State Historic Preservation Office are aware that it may be necessary to consult with the NCR on TCP sites in the future. From my conversations with these officials, it was clear that they understood the NRC letters of May 20, 1998, to pertain only to the archaeological sites identified in the OAS report. Accordingly, they did not understand the letter to constitute a determination that there are no TCPs in the area.

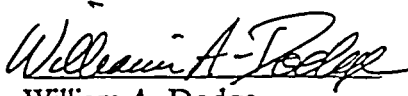
**Q.12. Does this conclude your testimony?**

**A.12. Yes.**

**AFFIRMATION**

STATE OF NEW MEXICO ) ss.  
COUNTY OF BERNALILLO )

I hereby affirm that the opinions expressed in the foregoing testimony constitute my best professional judgment, and that the factual representations are true and correct to the best of my knowledge.

  
William A. Dodge

Date: 12/3/98


Subscribed and sworn before me, the undersigned, a notary public, on this 3rd day of December, 1998.

My commission expires on 09-14-02



OFFICIAL SEAL  
DUANE L. CHAVEZ  
NOTARY PUBLIC-STATE OF NEW MEXICO

My commission expires: 07-14-02

  
Notary Public





UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20548-0001

October 2, 1996

40-8968

Dr. Phillip Shelley  
New Mexico State Historic Preservation Officer  
Historic Preservation Division (ATTN: Lynne Sebastian)  
228 E Palace Avenue  
Santa Fe, New Mexico 87501

SUBJECT: NATIONAL HISTORIC PRESERVATION ACT (SECTION 106) SUPPORT REQUEST  
FOR HYDRO RESOURCES, INC. CROWNPOINT, NM PROJECT

Dear Dr. Shelley:

The purpose of this letter is to request the assistance of the New Mexico State Historic Preservation Office (NMSHPO) in determining whether the proposed Hydro Resources, Inc. (HRI) in situ leach (ISL) mining project would affect properties eligible for, or listed on the National Register of Historic Places, pursuant to Section 106 of the National Historic Preservation Act (NHPA) of 1966 (as amended through 1992).

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing a license application submitted by HRI to construct and operate ISL facilities for mining uranium in the vicinity of Crownpoint, NM. Three specific sites would be mined - Church Rock, Unit 1, and Crownpoint (see Attachment A). Initial uranium production would occur at satellite processing facilities which HRI proposes to construct at the Church Rock and Unit 1 sites. Uranium slurry would then be shipped by truck from these satellite facilities to HRI's existing central processing facility at Crownpoint. This proposed activity is described in detail in Attachment B to this letter.

In consultation with Ms. Lynne Sebastian of your staff, NRC is providing information in Attachments C and D that will encompass the first five years of HRI's license term. The proposed overall project includes a large area of land and phased development over a 20-year period. NMSHPO has expressed a preference for evaluating this project incrementally. The development area and buffer zones, which include monitoring wells and peripheral disturbance areas, are hereafter referred to as the five-year project area.

The first step in the NHPA Section 106 process is determining whether the project area contains any sites, structures, or properties listed on or potentially eligible for listing on the National Register. HRI has taken initial steps to identify any of these locations in the five-year project area. A cultural resources consultant to HRI has drafted cultural resource management plans for the Crownpoint (see Attachment E), Unit 1 (see Attachment F), and Church Rock sites (see Attachment G). These plans identify areas within the project area that have previously been subjected to archaeological survey, and archaeological sites that were identified in the course of surveying. A complete bibliography of known archaeological survey reports and management reports is included as Attachment H. However, two shortcomings exist. First, not all of the area has been surveyed for archaeological

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MAPS AVAILABLE IN CENTRAL FILE

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resources (see Attachments C and D, which compare the five-year project area to the areas surveyed for archaeological resources). Second, no previous survey work in the project area has attempted to identify traditional cultural properties that are potentially eligible for the National Register.

To remedy the first shortcoming, HRI has committed in its cultural resource management plans to survey all property within its lease area, including verification of previously identified sites. An archaeological research firm, licensed by the state and the Navajo Nation, and who is under contract to HRI, will conduct a Phase I (or Class III, in BLM terms) archaeological survey of those parts of the five-year area that have not previously been surveyed. The survey of Section 12 T17N R13W and the 1977 survey of the Church Rock area (Ford and DeHoff 1977) are suspected to be inadequate. Therefore, the contractor will resurvey these areas with the exception of the southeastern quarter of Section 8 at the Church Rock site, which already has been resurveyed. The contractor also will verify and define the boundaries of sites that were identified in the resurvey of this quarter section, and all other areas within the five-year project area that have been previously surveyed. Attachments C and D indicate the areas that will be surveyed, resurveyed, and those that will be verified. Results of these surveys will be reviewed by the HRC and provided to your office. HRI has also committed, in its cultural resource management plans and in subsequent communications, to a "total avoidance" plan (i.e., all activities would be located so as to avoid any archaeological site).

Steps to remedy the second shortcoming, the absence of information about traditional cultural properties, are currently underway. As the National Environmental Policy Act (NEPA) review process is proceeding ahead of the NHPA Section 106 process, HRI's cultural resource consultant has sought preliminary information about traditional cultural properties from local tribes and pueblos, which are: the Navajo, the Hopi, the Zuni, the Laguna, the Acoma, and the All Indian Pueblo Council. A letter report summarizing the preliminary information received from these parties will be submitted to your office when it is completed. A thorough follow-up of the preliminary information will be conducted by experienced, local ethnographers in conjunction with the archaeological survey work. Cultural resource specialists of some of the aforementioned tribes and pueblos have indicated that the additional archaeological surveys may provide information about traditional cultural properties in the area. Therefore, the final information and report about traditional cultural properties will depend on, and likely be done in conjunction with, the archaeological resources report.

HRI's proposed policy of total avoidance of archaeological resources should preclude the disturbance of human remains. Nevertheless, there is a slight possibility that human remains would be encountered during ground-breaking or ground disturbing activities. Such finds will be handled on a case-by-case basis through the implementation procedures of the appropriate law, either the federal Native American Graves Protection and Repatriation Act on Indian lands or the New Mexico state law protecting human burials on other lands.

Through the NEPA public scoping process and subsequent cultural resource information collection efforts, some groups already have expressed a desire to be involved as interested parties in the NHPA Section 106 review process. These groups are the Navajo Nation, the Hopi Tribe, and the Pueblo of Zuni. In addition, the Pueblos of Acoma and Laguna, the All Indian Pueblo Council, the Bureau of Land Management, the Bureau of Indian Affairs, and the Navajo Crownpoint and Church Rock Chapter Houses will be notified of the initiation of this review process.

NRC would appreciate a response to this letter from NMSHPO that would include, as necessary, any direction or advice about advancing the review process, and comments about the planned or on-going survey work. If you have any questions concerning this subject, please contact Mr. Robert Carlson of my staff at (301) 415-8165.

Sincerely,

Original Signed By: J

Daniel M. Gillen, Acting Chief  
 Uranium Recovery Branch  
 Division of Waste Management  
 Office of Nuclear Material Safety  
 and Safeguards

Attachments: As stated

cc: M. Pelizza, HRI (w/o attach. E,F,G)

DISTRIBUTION (w/o encl):      NMSS r/f      ~~DWM r/f~~      URB r/f      <sup>C Cain</sup> LHowell, RIV  
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OFFICIAL RECORD COPY



# HRI, INC.

(A Subsidiary of Uranium Resources, Inc.)

5656 South Staples  
Suite 250, LB 8  
Corpus Christi, Texas 78411  
Telephone: (512) 993-7731  
Fax: (512) 993-5744

12750 Merit Drive  
Suite 1020, LB 12  
Dallas, Texas 75251  
Telephone: (214) 387-7777  
Fax: (214) 387-7779

P.O. Box 777  
Crownpoint, New Mexico 87313  
Telephone: (505) 786-5845  
Fax: (505) 786-5555

February 22, 1996

Chairman Roy Bernal  
All Indian Pueblo Council  
3939 San Pedro, NE  
Albuquerque, New Mexico 87190

Dear Chairman Bernal:

HRI, Inc. plans to construct and operate three in-situ uranium recovery facilities in McKinley County, New Mexico. The location of these facilities, which we commonly refer to as the Crownpoint Project, is shown on the attached map, and is descriptively located on the following land:

<u>T17N, R13W</u>	<u>T17N, R12W</u>	<u>T17N, R16W</u>
NW 1/4 Sec. 23	S 1/2 Sec. 19	SE 1/4 Sec. 8
NE 1/4 Sec. 22	W 1/2 Sec. 29	NE 1/4 and the
NW 1/4 Sec. 22		SE/4 NW/4 Sec. 17
SW 1/4 Sec. 22		
E 1/2 Sec. 21		
SE 1/4 Sec. 16		
SW 1/4 Sec. 15		
NW 1/4 Sec. 24		
SW 1/4 Sec. 24		
SE 1/4 Sec. 24		

In-situ mining involves the removal of uranium oxide in solution, and is accomplished by the construction of a series of injection-extraction and monitoring wells. This type of mining involves the development of water wells and a pipeline gathering system which has a limited impact to the land. The types of disturbance that are related to the project include well pad drilling activities and the excavation of well mud pits (located at about 30 to 50 m intervals), road access development, and the construction of a pipeline gathering system and a five-acre processing facility at each location. The placement of all these facilities is very flexible, and each can be located in a manner that avoids all known cultural resources.

The purpose of this correspondence is to notify you of the planned activity and briefly apprise you of the cultural resource management plan. Simply put, the principal objective of the management plan is to avoid all cultural resources. Given the nature of the project and its locational flexibility, this objective is feasible.

Please notify us of traditional cultural properties that might be located in or near the site locations described above, so that they can be considered in the planning process.

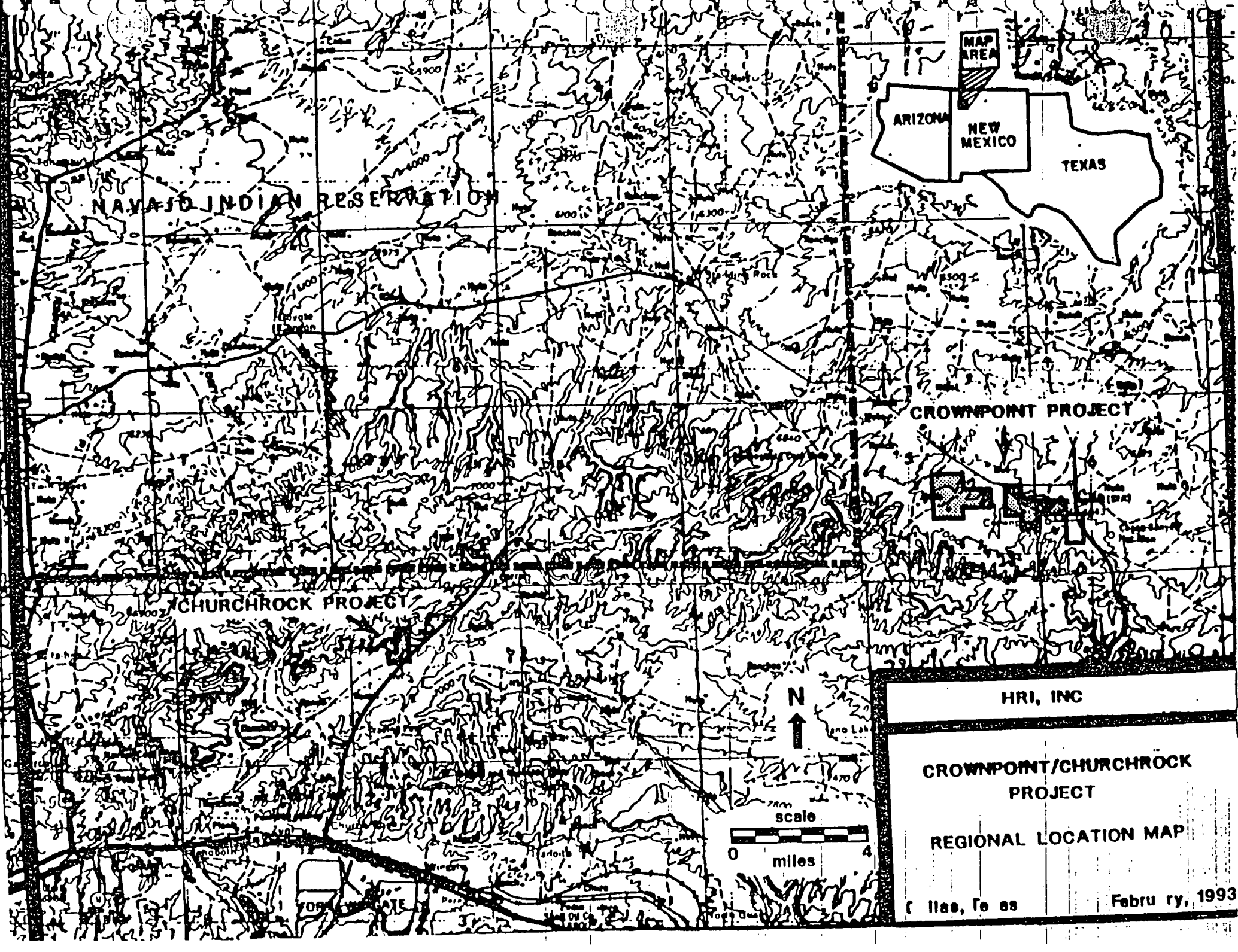
Thank you for considering this matter.

Sincerely,

  
Mark S. Pelizza  
Environmental Manager

cc: Rolf Nambe  
Navajo Nation Historic Preservation Department





NAVAJO INDIAN RESERVATION

CHURCHROCK PROJECT

CROWNPOINT PROJECT



HRI, INC

CROWNPOINT/CHURCHROCK  
PROJECT

REGIONAL LOCATION MAP

Illas, Te as      Febru ry, 1993

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Fax: (505) 786-5555

February 22, 1996

Governor Donald Eriacho  
Pueblo of Zuni  
P.O. Box 339  
Zuni, New Mexico 87327

Dear Governor Eriacho:

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NE 1/4 Sec.22	W 1/2 Sec. 29	NE 1/4 and the
NW 1/4 Sec. 22		SE/4 NW/4 Sec. 17
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SE 1/4 Sec. 24		

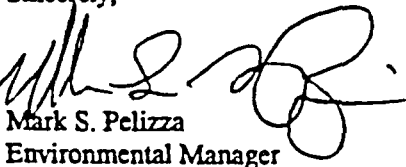
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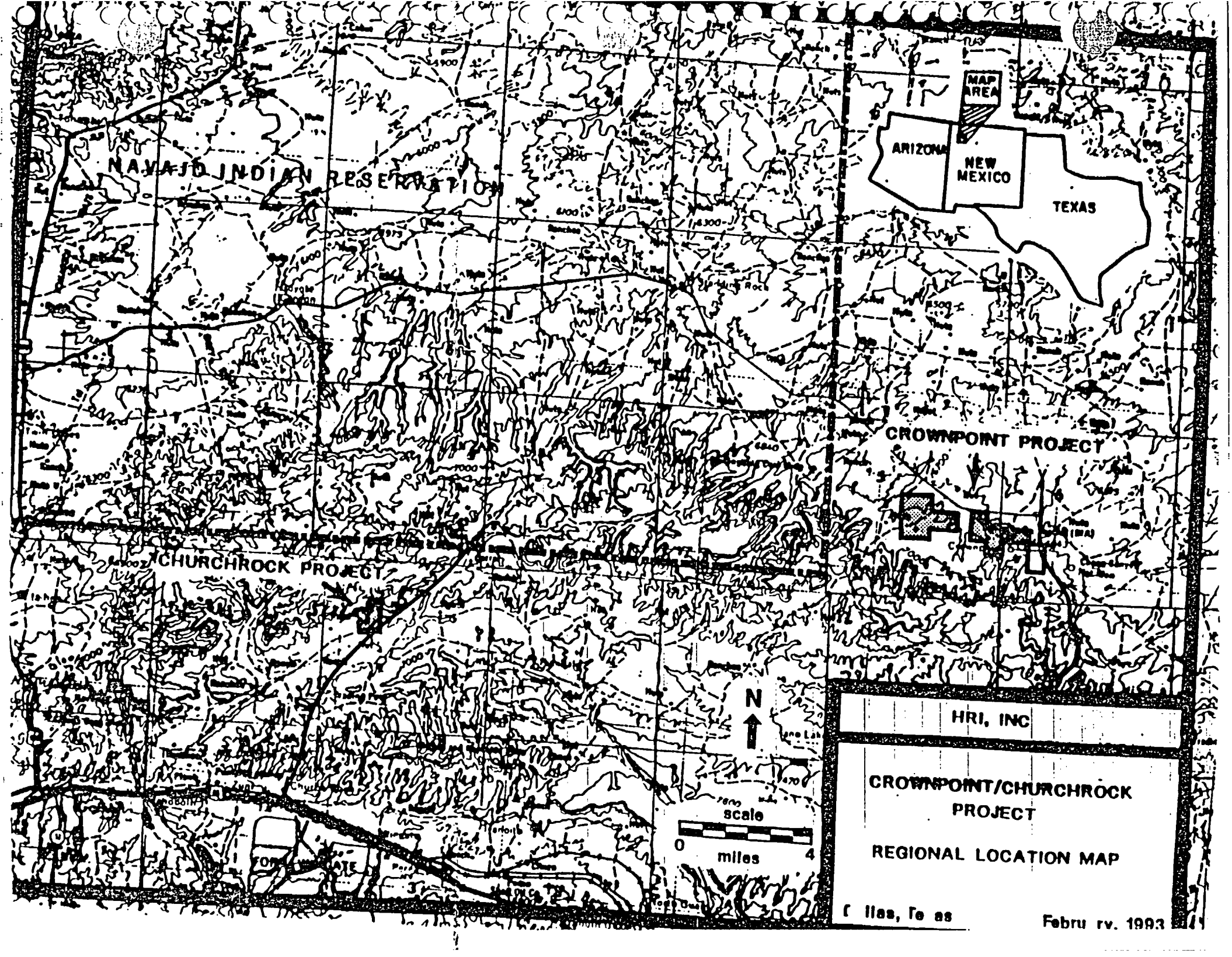
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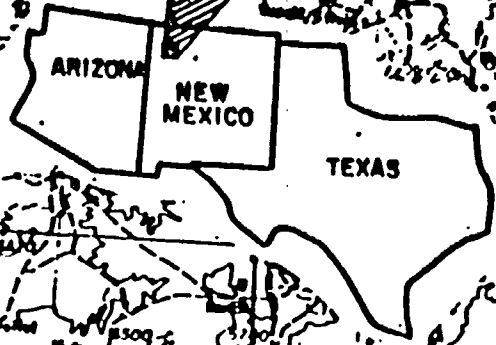
Sincerely,

  
Mark S. Pelizza  
Environmental Manager

cc: Rolf Nambe  
Navajo Nation Historic Preservation Department



NAVAJO INDIAN RESERVATION



CROWNPOINT PROJECT

CHURCHROCK PROJECT



HRI, INC

CROWNPOINT/CHURCHROCK  
PROJECT

REGIONAL LOCATION MAP

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Febru rv. 1993

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P.O. Box 777  
Crownpoint, New Mexico 87313  
Telephone: (505) 786-5845  
Fax: (505) 786-5555

February 22, 1996

Governor Roland Johnson  
Pueblo of Laguna  
P.O. Box 194  
Laguna Pueblo, New Mexico 87026

Dear Governor Johnson:

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NW 1/4 Sec 23  
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SW 1/4 Sec. 24  
SE 1/4 Sec. 24

T17N, R12W

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T17N, R16W

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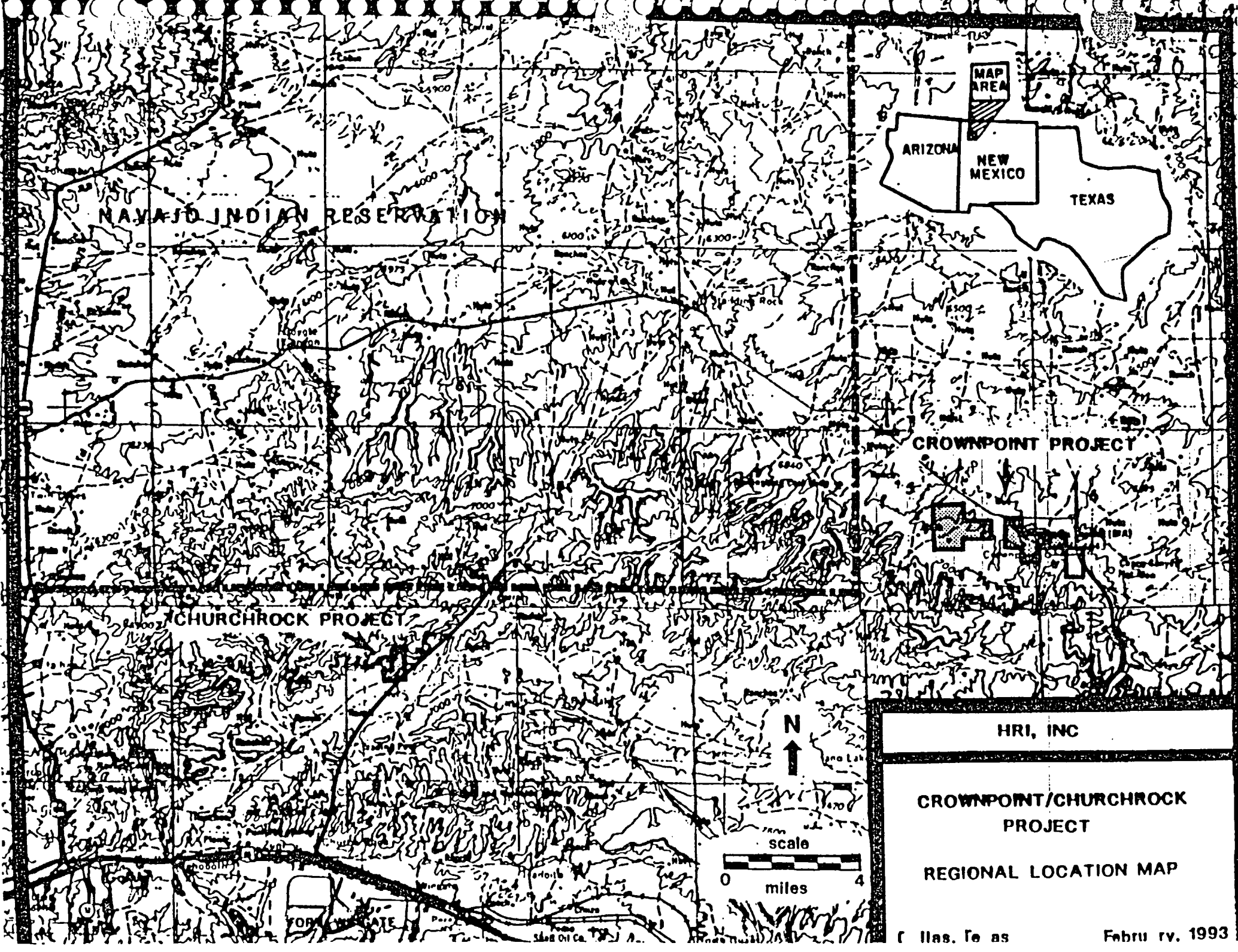
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Sincerely,

  
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Environmental Manager

cc: Rolf Nambe  
Navajo Nation Historic Preservation Department

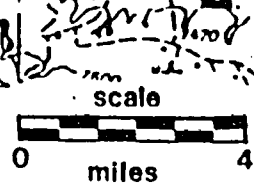
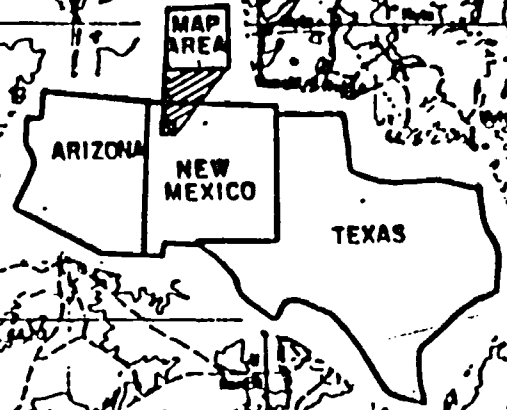




NAVAJO INDIAN RESERVATION

CHURCHROCK PROJECT

CROWNPOINT PROJECT



HRI, INC

CROWNPOINT/CHURCHROCK  
PROJECT

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Fax: (512) 993-5744

12750 Merit Drive  
Suite 1020, LB 12  
Dallas, Texas 75251  
Telephone: (214) 387-7777  
Fax: (214) 387-7779

P.O. Box 777  
Crownpoint, New Mexico 87313  
Telephone: (505) 786-5845  
Fax: (505) 786-5555

February 22, 1996

Governor Ron Shutiva  
Pueblo of Acoma  
P.O. Box 309  
Acoma, New Mexico 87034

Dear Governor Shutiva:

HRI, Inc. plans to construct and operate three in-situ uranium recovery facilities in McKinley County, New Mexico. The location of these facilities, which we commonly refer to as the Crownpoint Project, is shown on the attached map, and is descriptively located on the following land:

T17N, R13W

NW 1/4 Sec 23  
NE 1/4 Sec 22  
NW 1/4 Sec. 22  
SW 1/4 Sec. 22  
E 1/2 Sec. 21  
SE 1/4 Sec. 16  
SW 1/4 Sec. 15  
NW 1/4 Sec. 24  
SW 1/4 Sec. 24  
SE 1/4 Sec. 24

T17N, R12W

S 1/2 Sec. 19  
W 1/2 Sec. 29

T17N, R16W

SE 1/4 Sec. 8  
NE 1/4 and the  
SE/4 NW/4 Sec. 17

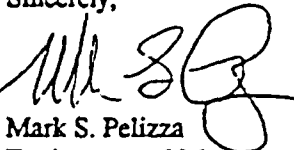
In-situ mining involves the removal of uranium oxide in solution, and is accomplished by the construction of a series of injection-extraction and monitoring wells. This type of mining involves the development of water wells and a pipeline gathering system which has a limited impact to the land. The types of disturbance that are related to the project include well pad drilling activities and the excavation of well mud pits (located at about 30 to 50 m intervals), road access development, and the construction of a pipeline gathering system and a five-acre processing facility at each location. The placement of all these facilities is very flexible, and each can be located in a manner that avoids all known cultural resources.

The purpose of this correspondence is to notify you of the planned activity and briefly apprise you of the cultural resource management plan. Simply put, the principal objective of the management plan is to avoid all cultural resources. Given the nature of the project and its locational flexibility, this objective is feasible.

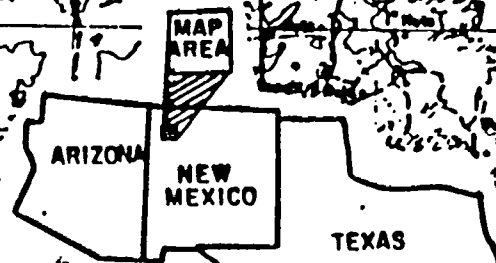
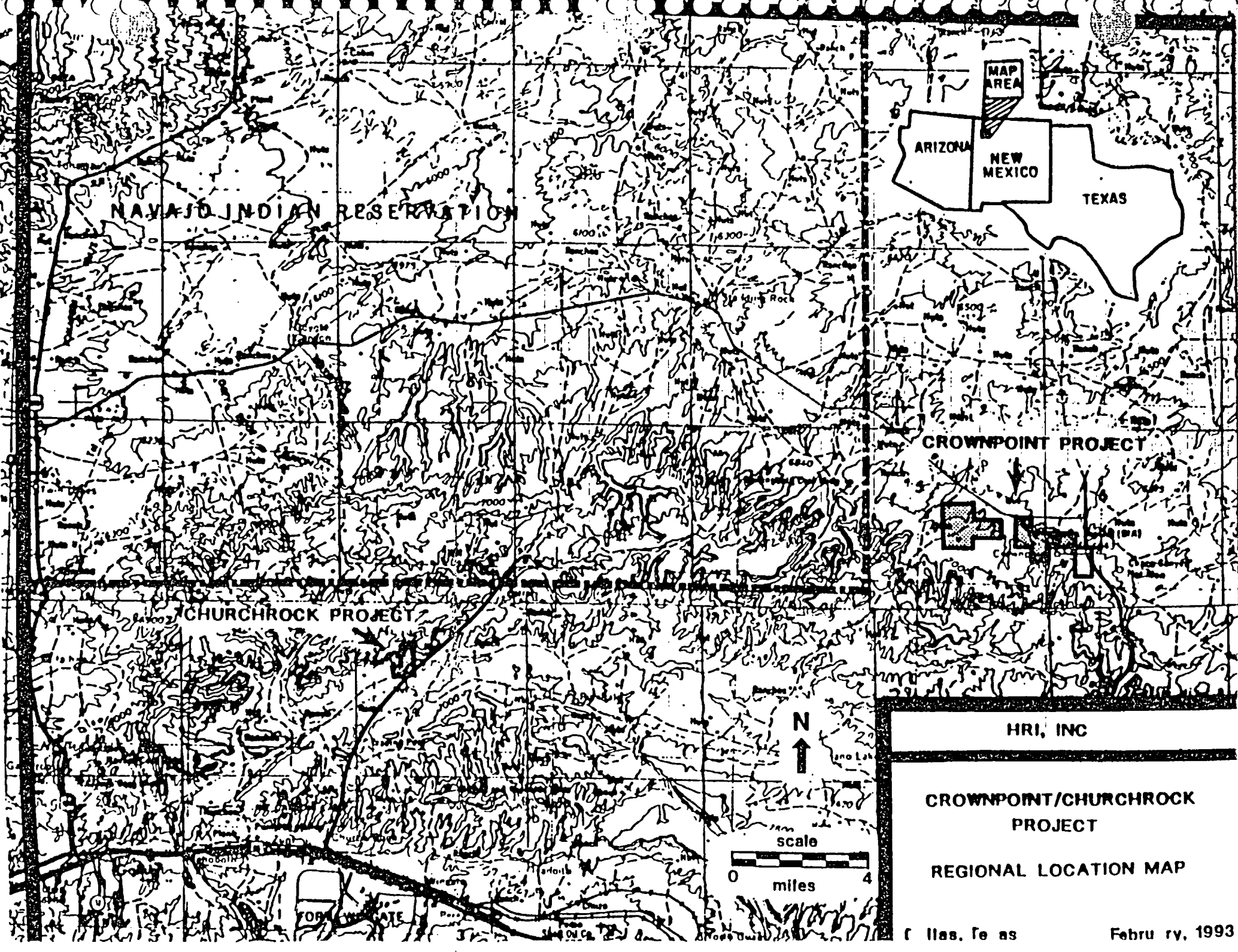
Please notify us of traditional cultural properties that might be located in or near the site locations described above, so that they can be considered in the planning process.

Thank you for considering this matter.

Sincerely,

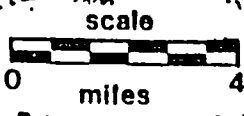
  
Mark S. Pelizza  
Environmental Manager

cc: Rolf Nambe  
Navajo Nation Historic Preservation Department



CHURCHROCK PROJECT

CROWNPOINT PROJECT



HRI, INC  
CROWNPOINT/CHURCHROCK  
PROJECT  
REGIONAL LOCATION MAP

# HRI, INC.

(A Subsidiary of Uranium Resources, Inc.)

5656 South Staples  
Suite 250, LB 8  
Corpus Christi, Texas 78411  
Telephone: (512) 993-7731  
Fax: (512) 993-5744

12750 Merit Drive  
Suite 1020, LB 12  
Dallas, Texas 75251  
Telephone: (214) 387-7777  
Fax: (214) 387-7779

P.O. Box 777  
Crownpoint, New Mexico 87313  
Telephone: (505) 786-5845  
Fax: (505) 786-5555

February 22, 1996

Chairman Ferrell H. Secakuku  
Hopi Tribal Offices  
P.O. Box 123  
Kykotsmovi, Arizona 86039

Dear Chairman Secakuku:

HRI, Inc. plans to construct and operate three in-situ uranium recovery facilities in McKinley County, New Mexico. The location of these facilities, which we commonly refer to as the Crownpoint Project, is shown on the attached map, and is descriptively located on the following land:

<u>T17N, R13W</u>	<u>T17N, R12W</u>	<u>T17N, R16W</u>
NW 1/4 Sec 23	S 1/2 Sec. 19	SE 1/4 Sec. 8
NE 1/4 Sec 22	W 1/2 Sec. 29	NE 1/4 and the
NW 1/4 Sec. 22		SE/4 NW/4 Sec. 17
SW 1/4 Sec. 22		
E 1/2 Sec. 21		
SE 1/4 Sec. 16		
SW 1/4 Sec. 15		
NW 1/4 Sec. 24		
SW 1/4 Sec. 24		
SE 1/4 Sec. 24		

In-situ mining involves the removal of uranium oxide in solution, and is accomplished by the construction of a series of injection-extraction and monitoring wells. This type of mining involves the development of water wells and a pipeline gathering system which has a limited impact to the land. The types of disturbance that are related to the project include well pad drilling activities and the excavation of well mud pits (located at about 30 to 50 m intervals), road access development, and the construction of a pipeline gathering system and a five-acre processing facility at each location. The placement of all these facilities is very flexible, and each can be located in a manner that avoids all known cultural resources.

The purpose of this correspondence is to notify you of the planned activity and briefly apprise you of the cultural resource management plan. Simply put, the principal objective of the management plan is to avoid all cultural resources. Given the nature of the project and its locational flexibility, this objective is feasible.

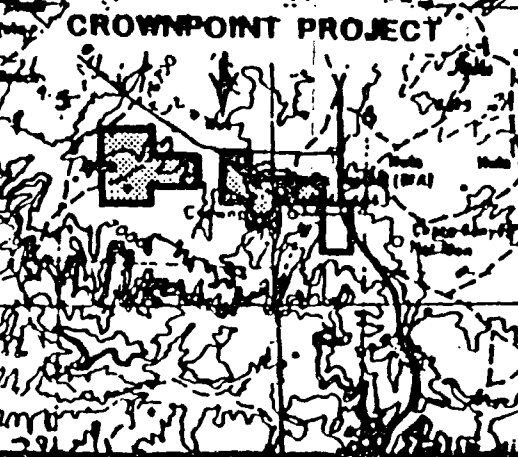
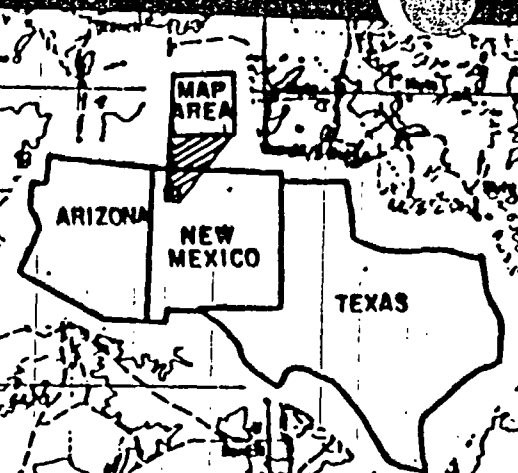
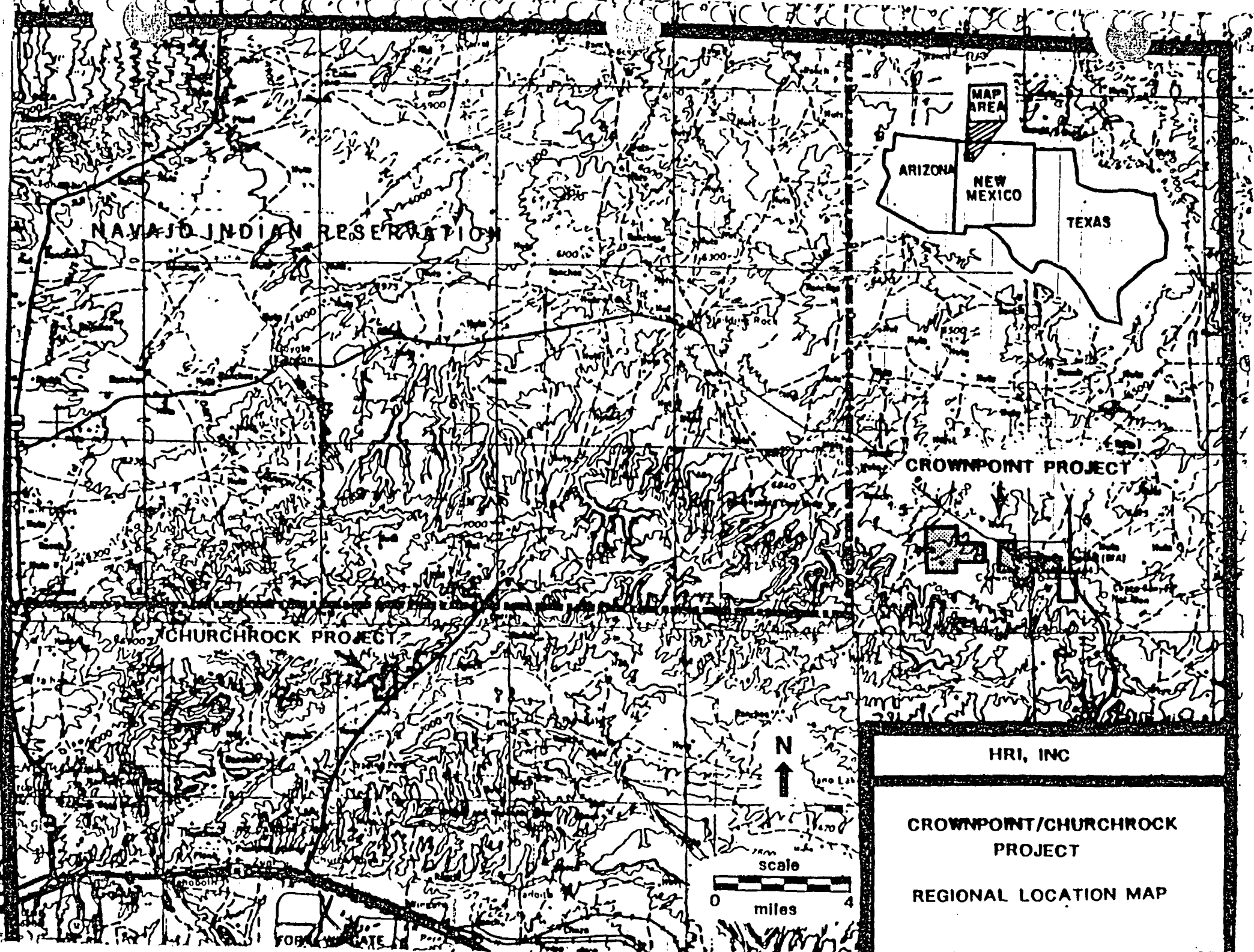
Please notify us of traditional cultural properties that might be located in or near the site locations described above, so that they can be considered in the planning process.

Thank you for considering this matter.

Sincerely,

  
Mark S. Pelizza  
Environmental Manager

cc: Rolf Nambe  
Navajo Nation Historic Preservation Department



HRI, INC

CROWNPOINT/CHURCHROCK  
PROJECT

REGIONAL LOCATION MAP

February, 1993

M-1, M-2

# HRI, INC.

(A Subsidiary of Uranium Resources, Inc.)

5656 South Staples  
Suite 250, LB 8  
Corpus Christi, Texas 78411  
Telephone: (512) 993-7731  
Fax: (512) 993-5744

12750 Merit Drive  
Suite 1020, LB 12  
Dallas, Texas 75251  
Telephone: (214) 387-7777  
Fax: (214) 387-7779

P.O. Box 777  
Crownpoint, New Mexico 87313  
Telephone: (505) 786-5845  
Fax: (505) 786-5555

February 20, 1996

40-8968

Mr. Joe Holonich, Chief  
High-Level Waste and Uranium Recovery Projects Branch  
United States Nuclear Regulatory Commission  
Division of Waste Management  
Office of Nuclear Materials Safety and Safeguards  
Washington, D.C. 20555-0001

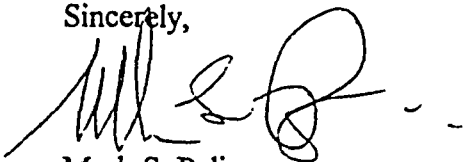
Dear Mr. Holonich:

Attached, please find three (3) copies of HRI's responses to NRC Request For Additional Information, #1-48. These requests were transmitted by letter, signed by Daniel M. Gillen, dated January 11, 1996.

The responses are complete except for Response #32, which will be followed by a free-standing engineering report, and Responses #22, #23, and #24, which will be the subject of additional work by our cultural resources contractor. Because of the various levels of inspections concerning cultural resources, our consultants and employees who are expert in these areas will make continuous contacts and reports throughout the lives of the projects. However, the company is committed to meet all the requirements of the NRC.

Please feel free to contact me with additional questions.

Sincerely,



Mark S. Pelizza  
Environmental Manager

MSP/dlg  
Enclosures (via Federal Express)

9602220389 960220  
PDR ADOCK 04008968  
B PDR

NK05  
1/11  
220124



**ADDITIONAL INFORMATION REQUEST  
HYDRO RESOURCES, INC. IN-SITU LEACH URANIUM MINE  
CROWNPOINT, NEW MEXICO**

**ISSUE: Cultural Resources**

**22. Discussion - None**

**Action Needed** - Describe any discussions and negotiations among the applicant, Navajo officials, New Mexico State Historic Preservation Office representatives, and any other officials concerning the presence of, and potential impacts to, cultural resources at the Crownpoint, UNIT I, and Churchrock sites.

**Response -**

Rolf J. Nabahe archeologist for the Navajo Nation Historic Preservation Department, Cultural Resource Compliance Section has been contacted (Feb. 9, 1996). He will be our cultural resources contact for both archeological and traditional issues for the Crownpoint Unit I and Churchrock sites. He provided the "Navajo Nation Policy to Protect Traditional Cultural Properties" and outlined the steps that must be taken to identify and record Traditional Cultural Properties (TCP's) pertaining to Navajo and other potentially affected Native American groups. These steps are:

1. To identify and record Navajo TCP's we must contact each chapter official and identify the traditional practitioners and land users. Through this process, individuals with information about TCP's will be identified. Each must be interviewed by an ethnohistorian or other qualified individual permitted by the Navajo Historic Preservation Department Sacred and Traditional Places Documentation Form". A literature search must also be conducted to identify previously reported TCP's.

2. Letters must be sent to the governors of the Acoma, Hopi, Laguna, and Zuni tribes. These letters should briefly describe the project, include a project location map and inquire if traditional cultural properties are known that might potentially be impacted. A follow-up telephone call should be made after one week and thirty to sixty days allowed for written response from each tribe.

Lynne Sebastian, Acting New Mexico State Historic Preservation Officer has been contacted (Feb. 15, 1996). She stated that if the appropriate tribal contacts are made, her office will be satisfied. She listed the Navajo, Acoma Hopi, Laguna and Zuni. A representative of HRI will meet with her on Monday, February 19, 1996.

The presidents of the Churchrock (Ernest Bicenti) and Crownpoint (Charles Long) Chapters and land users on each of the three locations have been contacted. Ernest Bicenti has



been identified as the traditional practitioner (medicine man) for both the Crownpoint and Churchrock Chapters. A list of potentially knowledgeable individuals is being compiled. An ethnohistorian permitted by the Navajo Nation will be retained to interview each person and to compile "Navajo Nation Historic Preservation Department Sacred and Traditional Places Documentation Forms".



THE  
NAVAJO  
NATION

P.O. BOX 308 • WINDOW ROCK, ARIZONA 86515 • (602) 871-4941

UNIT 1  
NN-HRI

PETERSON ZAH  
PRESIDENT

MARSHALL PLUMMER  
VICE PRESIDENT

27 January 1992

Mr. Mark S. Pelizza, Environmental Manager  
Hydro Resources, Inc.  
12377 Merit Drive, Suite 750, LB 14  
Dallas, TX 75251

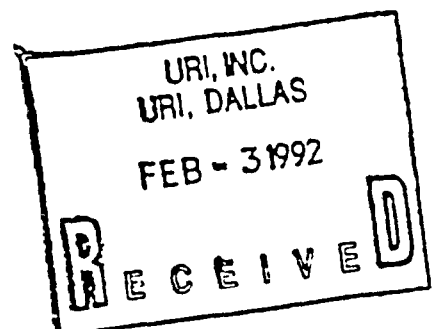
RE: A Cultural Resources-Environmental Assessment and  
Management Plan for the Proposed Hydro Resources, Inc.,  
Unit No. 1 Lease in the Crownpoint Area of the Eastern  
Navajo District, New Mexico (HPD 91-633, Cibola Research  
Cultural Resources Report No. 52).

Dear Mr. Pelizza:

Pursuant to the Public Law 93-638 archaeological services  
contract with the Bureau of Indian Affairs, the Historic  
Preservation Department (HPD) has completed its review of the  
subject document. Your contractor is to be commended for the  
thoroughness of his work.

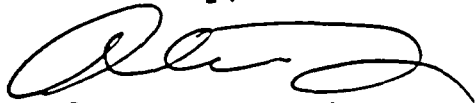
Given that ground disturbing activities are in no way a  
part of the proposed lease negotiations, we have no objection  
to the execution of such an agreement. Furthermore, in the  
event that the lease agreement is successfully negotiated and  
HRI elects to proceed with the uranium exploitation in the Unit  
1 area, it is our opinion that the plans and stipulations  
outlined in the document adequately address the needs of the  
Navajo Nation pursuant to cultural resources.

If you have any questions about our comments, or if we can  
be of assistance in any way, please call Eric van Hartesveldt



or me at (602) 871-6437. Please keep us informed as to the progress of your negotiations and your development plans.

Sincerely,



Alan Downer, Director  
Historic Preservation Department  
P.O. Box 2898  
Window Rock, AZ 86515

xc: file  
desk

ADDITIONAL INFORMATION REQUEST  
HYDRO RESOURCES, INC. IN-SITU LEACH URANIUM MINE  
CROWNPOINT, NEW MEXICO

ISSUE: Cultural Resources

23. Discussion - None

Action Needed - Provide a copy of the report or a summary of findings of site surveys focused on traditional cultural properties completed by Ernest Becenti. Indicate whether the report has been (or will be) reviewed by appropriate Navajo and New Mexico cultural resources officials.

Response -

The information that Ernest Bicenti provided will be transcribed to a Navajo Nation Historic Preservation Department Sacred and Traditional Places Documentation Form. The report will be reviewed by appropriate Navajo and New Mexico cultural resources officials.

ADDITIONAL INFORMATION REQUEST  
HYDRO RESOURCES, INC. IN-SITU LEACH URANIUM MINE  
CROWNPOINT, NEW MEXICO

ISSUE: Cultural Resources

24. Discussion - None

Action Needed - Prepare summary reports from each cultural resources director of the Navajo, Hopi, Zuni, Acoma, Laguna, and other potentially affected tribes that describe: 1) any traditional cultural properties identified by each tribe to be present at or near each of the three sites, and 2) the potential impacts of the proposed project to each of those properties. The methods used in preparing each report should follow those set forth in the National Park Service's National Register Bulletin 38, *Guidelines for Evaluating and Documenting Traditional Cultural Properties*.

Response -

Summary reports of the responses from each of the appropriate cultural resources officials from the Navajo, Acoma, Hopi, Laguna and Zuni tribes will be prepared. These reports will identify and describe any TCP's present or near each of the three sites and describe potential impacts of the proposed projects to each property. The methods used will follow the guidelines set forth in the National Park Service's National Register Bulletin 38, "Guidelines for Evaluating and Documenting Traditional Properties" and reflected by the "Navajo Nation Historic Preservation Department Sacred and Traditional Places Documentation Form".

# HRI, INC.

(A Subsidiary of Uranium Resources, Inc.)

5656 South Staples  
Suite 250, LB 8  
Corpus Christi, Texas 78411  
Telephone: (512) 993-7731  
Fax: (512) 993-5744

12750 Merit Drive  
Suite 1020, LB 12  
Dallas, Texas 75251  
Telephone: (214) 387-7777  
Fax: (214) 387-7779

P.O. Box 777  
Crownpoint, New Mexico 87313  
Telephone: (505) 786-5845  
Fax: (505) 786-5555

May 3, 1996

Mr. Joe Holonich, Chief  
High-Level Waste and Uranium Recovery Projects Branch  
United States Nuclear Regulatory Commission  
Division of Waste Management  
Office of Nuclear Materials Safety and Safeguards  
Mail Stop T-7-J9  
11545 Rockville Pike  
Rockville, MD 20850

RE: Cultural Resources Issue - Crownpoint Project

40 - 8968

Dear Mr. Holonich:

Please find attached the summary report from Lorraine Heartfield, which recaps the work that has been completed in response to the NRC requests #22, 23, and 24 dated January 11, 1996

In general, Ms. Heartfield's reports document the effort HRI has made in contacting neighboring tribes, Navajo and state historic preservations persons pertaining to traditional resources. Those contacted provided only limited response.

The consensus of opinion seems to indicate that the detailed TCP work is expected during the Section 106 Cultural Resources Review. We anticipate starting the 106 review at the Churchrock property in July, 1996.

Please feel free to contact me with additional questions.

Sincerely,

  
Mark S. Pelizza  
Vice President  
Health, Safety and Environmental Affairs

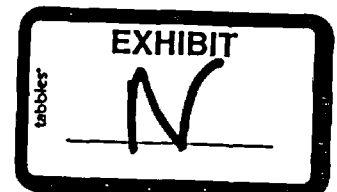
MSP/dlg  
Enclosures (via Federal Express)

cc: Mr. Rolf Nabahe

070051

9605080097 960503  
PDR ADOCK 04008968  
C PDR

N205  
//i



STRATIGRAPHIC SERVICES, S. A  
RT 3 BOX 109 P  
SANTA FE, NM 87505  
505-982-7418

April 30, 1996

Mark S. Pelizza,  
Environmental Manager  
HRI, Inc.  
12750 Merit Drive  
Suite 1020, LB 12  
Dallas, Texas  
75251

RE: Crownpoint In-Situ Leach Project, Cultural Resources.

Dear Mark:

Hopefully, this brief report will provide a comprehensive overview of the steps that have been taken in 1996 to place the Crownpoint In-Situ Leach Project in compliance with cultural resources regulatory requirements, specifically the Traditional Cultural Properties (TCP's).

#### Initial steps

A summary of the initial steps taken by HRI to begin the cultural resources compliance include: The Presidents of the Church Rock Chapter, Ernest Becenti, and the Crown Point Chapter, Charles Long, was contacted for comment about the project and Ernest Becenti was identified as the Traditional Practitioner for both the Church Rock and Crown Point Chapter areas. Public meetings were held and response solicited from the residents of the region. Allotees and land users in the area of the Church Rock, Crown Point and Unit 1 parcels were identified and discussed the project with URI.

#### NRC requests for clarification and additional information

##### Contacts with the Navajo Nation and SHPO

I visited (Feb, 9) The Historic Preservation Department, Cultural Resources Compliance Section for the Navajo Nation in Window Rock and met with Rolf J. Nabahe, archeologist. Mr. Nabahe will be the cultural resources contact for both archeological and traditional issues. We discussed the

previous archeological work that has been done on the properties, our commitment to confirm site boundaries, identify any undiscovered sites and to implement a plan of avoidance. He suggested that we contact, by letter, other Native American groups; particularly the Acoma, Hopi, Laguna and Zuni. He suggested the names of several individuals who might be available to compile the information necessary to address Traditional Cultural Properties.

I talked with Lynne Sebastian, Acting New Mexico State Historic Preservation Officer on February 15 and met with her in Santa Fe, New Mexico on February 19. I informed her that we had met with the Navajo Nation and she indicated that the Acoma, Hopi, Laguna and Zuni should also be contacted by letter. She is expecting the NRC to notify her office to begin 106 consultation.

#### Response to DEIS: Request for Information

I provided clarification to questions 22, 23, and 24 of the DEIS for the NRC on February 15 (Attachment #1).

Further clarification to questions 22, 23 and 24 were submitted on April 4 (Attachment # 2).

#### Contacts with Native American Groups

On February 22, Letters were sent to the governors and/or chairmen of the Acoma, Hopi, Laguna and Zuni. In response to an NRC inquiry a letter was sent to the chairman of the All Indian Pueblo Council in Albuquerque as well. These letters (Attachment #3) described the proposed project and the objective of the cultural resources plan. Each group was asked to notify HRI of TCP's in or near the project location so that these can be incorporated into the planning process.

An error was made in the location of the Church Rock parcel. A letter of correction was sent to each group on February 28 (Attachment #4).

By March 26, no responses had been received. On that date, follow up telephone calls were made to each Pueblo and it was confirmed that the letters had been received. I made inquiries to insure that appropriate individuals had had an opportunity to comment.

I spoke with Gilbert Petuuche, Land Coordinator for Acoma Pueblo. He said that Acoma Pueblo expects compliance with NAGPRA if human remains are found.

I spoke with Clay Hamilton, Research Assistant for the Hopi Cultural Preservation Office. He requested that the letters be faxed directly to him. This was done.

The Governors Office of Laguna Pueblo confirmed that the letters had reached the appropriate persons. They indicated that they would respond.



Joe Dishpa of the Zuni Heritage and Historic Preservation Office requested that the letters be faxed directly to his office to the attention of Roger Anyon, Director. This was done. A letter was received by HRI on March 28 (Attachment #5).

The All Indian Pueblo Council was contacted and I was referred to Terrill Muller. She was unavailable. I left my number for a return call. I called again on March 29, April 4, April 5 (office closed), and April 12. On April 12 a staff member indicated that Terill Muller would call if she had a comment. No call has been received.

#### TCP Information

I met with Mr. Becenti on February 8 in Gallup. He told me that he had interviewed several individuals who were knowledgeable about the Church Rock parcel and had conducted a field survey of all URI properties. He indicated that a written report would be submitted soon.

On February 14, Ernest Becenti submitted to URI, Inc. the report "Sacred and Traditional Places for Hydro Resources, Inc" (Attachment 6). In summary, Becenti listed his qualifications as a Medicine Man (Traditional Practitioner), confirmed that he had walked over all of the Church Rock, Unit 1 and Crown Point localities examining them for sacred plants and traditional places. He included the results of interviews with four individuals who are or had been adjacent residents to the Church Rock property. The information was presented on "Navajo Nation Historic Preservation Department Sacred/Traditional Places Document Forms".

The Becenti report was forwarded to the NRC. Then on March 27, the Becenti report was sent to Rolf J. Nabahe.

On April 18, I spoke with Mr. Nabahe about the Becenti report. He said that Becenti's information and interviews are acceptable. They should be summarized and included in the final report for the Church Rock parcel that will be compiled by a qualified ethnohistorian. As part of the 106 process he wants the archeological and Traditional Cultural Properties reports submitted as a single document.

If you need additional information or clarification please call.

Sincerely,



Lorraine Heartfield, PhD  
Cultural Resources Consultant

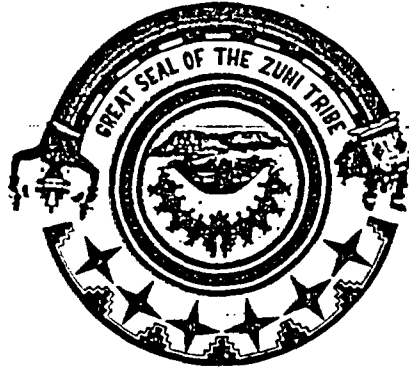
LH/lh

Via FAX and  
Overnight

4

PUEBLO OF ZUNI  
HERITAGE AND HISTORIC PRESERVATION OFFICE

P.O. BOX 339  
ZUNI  
NEW MEXICO 87327



TEL: 505 782-~~XXXX~~ 4113  
~~505-5114~~  
FAX: 505 782-~~XXXX~~ 4119

March 28, 1996

URR DALLAS  
MAR - 2 1996  
C 5 1

Mr. Mark S. Pelizza  
Environmental Manager  
Uranium Resources, Inc.  
12750 Merit Drive, Suite 1020, LB12  
Dallas, TX 75251

Dear Mr. Pelizza:

Thank you for providing the Pueblo of Zuni with the information on your proposed in-situ uranium recovery facilities near Crownpoint, McKinley County, New Mexico. The Pueblo of Zuni may well have places of traditional and cultural importance within the project area.

To determine what traditional Zuni cultural resources may be in the project area would require field work, assessment, and evaluation of the project area plus a review and assessment of any archaeological surveys for the project by our Cultural Resources Advisory Team. This fieldwork, assessment, evaluations, and review would have to be funded by your company, if we are to be able to conduct this effort. We believe this effort will be necessary for you to fully comply with Section 106 of the National Historic Preservation Act.

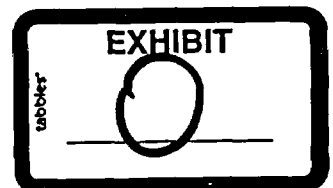
If you have any questions, please call me. Thank you.

Sincerely,

A handwritten signature in black ink, appearing to read "R. Anyon".

Roger Anyon, Director

RA/sl  
cc: Peter Noyes, Navajo Nation HPD





# DNA – PEOPLE’S LEGAL SERVICES, INC.

Administration  
P.O. Box 306  
Window Rock, AZ 86515  
(928) 871-4151  
Fax: (928) 871-5036

Chinle DNA  
P.O. Box 707  
Chinle, AZ 86503  
(928) 674-5242  
Fax: (928) 674-2410

Flagstaff DNA  
222 East Birch Street  
Flagstaff, AZ 86001  
(928) 774-0653  
Fax: (928) 774-9452

Crownpoint DNA  
P.O. Box 116  
Crownpoint, NM 87313  
(505) 786-5277  
Fax: (505) 786-7275

Fort Defiance DNA  
P.O. Box 306  
Window Rock, AZ 86515  
(928) 871-4151  
Fax: (928) 871-5036

Hopi DNA  
P.O. Box 558  
Keams Canyon, AZ 86515  
(928) 738-2251/5345  
Fax: (928) 738-5343

Mexican Hat DNA  
P.O. Box 310458  
Mexican Hat, UT 84531  
(435) 739-4380  
Fax: (435) 739-4384

Farmington DNA  
709 North Butler  
Farmington, NM 87401  
(505) 325-8886  
Fax: (505) 327-9486

Shiprock DNA  
P.O. Box 987,  
Shiprock, NM 87420  
(505) 368-3200  
Fax: (505) 368-3212

Tuba City DNA  
P.O. Box 765  
Tuba City, AZ 86045  
(928) 283-5265  
Fax: (928) 283-5460

April 28, 2005

U.S. Nuclear Regulatory Commission  
Office of the Secretary  
Attn: Rulemakings and Adjudications Staff  
One White Flint North  
11555 Rockville Pike  
Rockville, MD 20852  
*Via Express Mail and U.S. First Class Mail*

**RE: In the Matter of Hydro Resources, Inc.,  
Docket No. 40-8968-ML; ASLBP No. 95-706-01-ML**

Dear Madam or Sir:

Please find enclosed for filing “Intervenors Grace Sam’s, Marilyn Morris’, Eastern Navajo Diné Against Uranium Mining’s and Southwest Research and Information Center’s Written Presentation in Opposition to Hydro Resources, Inc.’s Application for a Materials License With Respect to: Cultural Resources”. Copies of the enclosed have been served on the parties indicated on the certificate of service.

Please return a file-stamped copy of this filing’s cover page in the attached self-addressed, postage pre-paid envelope. Thank you for your assistance. Please do not hesitate to contact me if you have any questions at:

DNA – People’s Legal Services, Inc.  
P.O. Box 765  
Tuba City, AZ 86045  
928.283.3211  
[lberglan@dnalegalservices.org](mailto:lberglan@dnalegalservices.org)

Sincerely,

Laura Berglan

Website:  
[www.dnalegalservices.org](http://www.dnalegalservices.org)



UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE PRESIDING OFFICER

In the Matter of )  
 ) Docket No. 40-8968-ML  
HYDRO RESOURCES, INC. )  
P.O. Box 777 )  
Crownpoint, NM 87313. )

CERTIFICATE OF SERVICE

I hereby certify that copies of Intervenors' Cultural Resources Presentation in the above-captioned proceeding have been served on the following by U.S. Mail, by Priority Mail, or, as indicated by an asterisk, by electronic mail on April 28, 2005, and U.S. Mail, this 29th day of April, 2005:

Administrative Judge, E. Roy Hawkens\*  
Presiding Officer  
Atomic Safety and Licensing Board  
U.S. Nuclear Regulatory Commission  
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