UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION



BEFORE THE PRESIDING OFFICER



| | | |
|---|---|---|
| In the Matter of | ) | |
| | ) | Docket No. 40-8968-ML |
| HYDRO RESOURCES, INC. | ) | |
| 2929 Coors Road, Suite 101 | ) | Re: Leach Mining and Milling License |
| Albuquerque, New Mexico 87120 | ) | |

NRC STAFF SUPPLEMENTAL RESPONSE
TO QUESTION 7 POSED IN APRIL 21 ORDER

In accordance with the Presiding Officer's request in his Memorandum and Order (Questions), dated April 21, 1999 (April 21 Order), the Staff files this supplemental response to question 7, with respect to the impacts of the entire Crownpoint Uranium Project (CUP). *See* April 21 Order at 3. Attached is the affidavit of Robert D. Carlson, dated June 7, 1999 (Carlson June 7 Affidavit), which is appended hereto as Staff Exhibit 3. Mr. Carlson participated in the preparation of NUREG-1508, Final Environmental Impact Statement to Construct and operate the Crownpoint Uranium Solution Mining Project, Crownpoint, New Mexico, dated February 1997 (FEIS) and has prepared his response, in part, with the assistance of knowledgeable NRC Staff and Oak Ridge National Laboratory (ORNL) personnel. *See* Carlson June 7 Affidavit at 1-2.

The Staff maintains its position that no supplementation of NUREG-1508 is needed. *See* NRC Response To Questions Posed in April 21 Order, dated May 11, 1999, at 2-3. As the attached response demonstrates, there have been no significant changes in the impacts evaluated in the FEIS and the environmental impacts of the CUP are acceptable. NEPA's "rule of reason" and "hard look" standards do not require that the environmentally superior

alternative be selected or that an EIS be supplemented solely based on new information concerning environmental impacts. *See Robertson v. Methow Valley Citizens Council,* 490 U.S. 332, 350-51 (1988) (NEPA mandates a process, not particular results; if adverse environmental effects are adequately identified, an agency may decide environmental costs are outweighed); *Marsh v. Oregon Natural Resources Defense Council, Inc.*, 490 U.S. 360, 373-78 (1978) (supplementation of an EIS is not required every time new information comes to light, but an agency's determination regarding supplementation is a factual decision that is entitled to deference).

Respectfully submitted,

Mitzi A. Young
Counsel for NRC Staff

Dated at Rockville, Maryland
this 7th day of June 1999

Staff Exhibit 3

UNITED STATES OF AMERICA
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| | | |
|---|---|---|
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AFFIDAVIT OF ROBERT D. CARLSON

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

1. I am employed by the U.S. Nuclear Regulatory Commission (NRC), Office of Nuclear Material Safety and Safeguards in the Uranium Recovery and Low Level Waste Branch of the Division of Waste Management. I am the NRC Project Manager responsible for managing environmental and safety reviews concerning Hydro Resources, Inc.'s application to conduct an in-situ leach (ISL) mining project at Crownpoint, New Mexico, and have served in this capacity since August 1996. I participated in the preparation of NUREG-1508, Final Environmental Impact Statement to Construct and Operate the Crownpoint Uranium Solution Mining Project, Crownpoint New Mexico, dated February 1997 (FEIS). Preparation of the FEIS and input into this affidavit was done, in part, with the assistance of NRC Staff and contractor support personnel from Oak Ridge National Laboratory (ORNL). The technical disciplines of NRC Staff and ORNL personnel are listed in FEIS Section 8 and includes: Cultural Resources, Civil Engineering, Geology, Hydrology (Surface and Groundwater), Mechanical Engineering, Health Physics, Nuclear Engineering, Landscape Architecture, Land Use Planning, Anthropology, Economics, and Ecology. A statement of my professional qualifications was previously filed in this proceeding as an attachment to my

February 20, 1998, affidavit (Staff Exhibit 3 to NRC Staff Response to Motion for Stay, Request for Prior Hearing, and Request for Temporary Stay, dated February 20, 1998).

2. The purpose of this affidavit is to respond to Question 7, with respect to the entire Crownpoint Uranium Project (CUP), as set forth the Memorandum and Order (Questions), dated April 21, 1999 (April 21 Order). NRC Staff and ORNL personnel assisted in identifying information responsive to the Presiding Officer's question.

> 3. [Question] 7. For . . . the entire CUP: What is your comparative analysis of the NRC Staff-Recommended Action to: (1) the non-action alternative, and (2) Alternative 2 (modified action) -- including a concise, descriptive summary of the advantages and disadvantages of the options? *See* CEQ "Memorandum to Agencies; Answers to 40 Most Asked Questions on NEPA Regulations," 46 Fed. Reg. 18,026; *see also* 40 C.F.R. § 1502.14 (Council on Environmental Quality, guidance). *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 98 (and 97-99) (1998). In your answers to this question, please consider the answers to the questions [1-6] above in your overall discussion. [footnote omitted]

Tables 1 through 12 (attached) provide the NRC Staff's comparative analysis for the entire CUP of the "NRC Staff-Recommended Action" alternative (Alternative 3) with the "No Action" alternative (Alternative 4) and the Modified Action alternative (Alternative 2). These tables summarize information in FEIS Sections 4.1 through 4.12.

4. In general, the NRC Staff-Recommended Action would have the advantage of allowing HRI to develop the CUP with acceptable environmental impacts, while providing more environmental protection than the Modified Action (because of the additional mitigation measures recommended by Staff). The NRC Staff-Recommended Action would have the disadvantages of being more expensive for HRI than the Modified Action alternative and **would cause** environmental impacts that would not exist under the No Action alternative.

5. The Modified Action alternative would have the advantage of allowing HRI to develop the CUP at a lower cost than under the NRC Staff-Recommended Action, but would have the disadvantages of providing less environmental protection than the NRC Staff-Recommended Action (because there would be no additional mitigation measures recommended by staff) and of creating impacts that would not exist under the No Action alternative.

6. The No Action alternative would have the advantage of maintaining the status quo and avoiding the minimal impacts (to air quality and noise, geology and soils, groundwater, surface water, transportation risks, health physics and radiological risks, ecology, land use, socioeconomics, aesthetics, cultural resources and environmental justice) associated with development of the CUP. The disadvantages of the No Action alternative would be not allowing any uranium production from the CUP and any of the beneficial socioeconomic impacts discussed in the FEIS. *See* FEIS Sections 4.9.1, 4.9.5, 5.1.2 and 5.1.3.

## TABLE 1. AIR QUALITY AND NOISE

| ALTERNATIVES | Church Rock | | UNIT 1 | | CROWNPOINT | |
|---|---|---|---|---|---|---|
| | IMPACTS | COMMENTS | IMPACTS | COMMENTS | IMPACTS | COMMENTS |
| **ALTERNATIVE 2 (MODIFIED ACTION)** | Impacts more significant than under Alternative 3 (no mitigation measures except those proposed by HRI). | Air quality and noise impacts in Church Rock will be relatively insignificant under both Alternatives 2 and 3. | Same as for Church Rock. | | Same as for Church Rock. | |
| **ALTERNATIVE 3 (STAFF-RECOMMENDED ACTION)** | Impacts less significant than under Alternative 2 (staff-recommended mitigation measures plus those proposed by HRI):<br><br>- Utilize dust suppression techniques to reduce fugitive dust from unpaved roads | Under Alternative 3, the NRC Staff's recommendation to utilize dust suppression techniques to reduce fugitive dust from unpaved roads was primarily for the Crownpoint and Unit 1 sites (i.e., Church Rock has only a short stretch of unpaved roadway). However, construction and maintenance activities at the Church Rock well fields, and traffic on the facility grounds could result in creation of some fugitive dust, thereby necessitating use of some form of dust suppression technique. | Same as for Church Rock. | | Same as for Church Rock. | |
| **ALTERNATIVE 4 (NO ACTION)** | No impacts to air quality; no noise impacts. | | Same as for Church Rock. | | Same as for Church Rock. | |

**TABLE 2. GEOLOGY AND SOILS**

| ALTERNATIVES | Church Rock | | UNIT 1 | | CROWNPOINT | |
|---|---|---|---|---|---|---|
| | IMPACTS | COMMENTS | IMPACTS | COMMENTS | IMPACTS | COMMENTS |
| **ALTERNATIVE 2 (MODIFIED ACTION)** | Impacts more significant than under Alternative 3 (no mitigation measures except those proposed by HRI). | Geological and soils impacts at Church Rock are expected to be minimal under both Alternatives 2 and 3. Under Alternatives 2 or 3, HRI has not determined which of its proposed groundwater restoration approaches or methods of waste water disposal it will utilize. | Same as for Church Rock. | | Same as for Church Rock. | |
| **ALTERNATIVE 3 (STAFF-RECOMMENDED ACTION)** | Impacts less significant than under Alternative 2 (staff-recommended mitigation measures plus those proposed by HRI):<br><br>1. No construction of above grade wastewater retention ponds prior to NRC approval of embankment engineering system.<br><br>2. Maintain sufficient reserve capacity in retention pond system to enable transfer of contents among ponds. | Under Alternative 3, the NRC Staff imposes additional license requirements to ensure licensee compliance with regulatory requirements.<br><br>- Reduces risk of surface water and soils being contaminated from structural failure of the retention ponds.<br><br>- Reduces risk of surface water and soils being contaminated from over-topping of the retention ponds. | Same as for Church Rock. | | Same as for Church Rock. | |

**TABLE 2. GEOLOGY AND SOILS (Continued)**

| ALTERNATIVES | Church Rock | | UNIT 1 | | CROWNPOINT | |
|---|---|---|---|---|---|---|
| | IMPACTS | COMMENTS | IMPACTS | COMMENTS | IMPACTS | COMMENTS |
| **ALTERNATIVE 3 (STAFF-RECOMMENDED ACTION)** | 3. Submit detailed site reclamation plan for NRC approval 12 months prior to shutdown.<br><br>4. Maintain adequate financial surety to cover reclamation costs. | - Ensures adequate safety evaluation review is conducted of licensee's reclamation plan.<br><br>- Establishes adequate funding to ensure all groundwater restoration and surface reclamation costs are covered. | | | | |
| **ALTERNATIVE 4 (NO ACTION)** | No impacts to geology or soils. | | Same as for Church Rock. | | Same as for Church Rock. | |

## TABLE 3. GROUNDWATER

| ALTERNATIVES | Church Rock | | UNIT 1 | | CROWNPOINT | |
|---|---|---|---|---|---|---|
| | IMPACTS | COMMENTS | IMPACTS | COMMENTS | IMPACTS | COMMENTS |
| **ALTERNATIVE 2 (MODIFIED ACTION)** | Impacts more significant than under Alternative 3 (no mitigation measures except those proposed by HRI). | Alternative 2 has a higher risk than Alternative 3 that groundwater could potentially be contaminated by vertical excursions and that the groundwater may not be properly restored | Same as for Church Rock. | | Same as for Church Rock. | |
| **ALTERNATIVE 3 (STAFF-RECOMMENDED ACTION)** | Impacts less significant than under Alternative 2 (staff-recommended mitigation measures plus those proposed by HRI): | | Same as for Church Rock, with additional staff-recommended measures for the Unit 1 site below: | | Same as for Church Rock and Unit 1, with additional staff-recommended measure for the Crownpoint site below: | |
| | 1. Perform well integrity tests on each injection and production well before use. | - Reduces risk of aquifer contamination from vertical excursions. | 12. Reimburse town of Crownpoint water supply well operators for increased pumping and well work-over costs. | - Reduces economic impact from temporarily lowering aquifer water levels. | | |
| | 2. Dispose of all liquid effluents from process buildings and other process waste streams in NRC-approved manner. | - Ensures licensee requirement to obtain NRC review and approval of any future liquid waste effluent disposal option. | 13. Perform production scale groundwater restoration demonstration at Church Rock prior to mining at Unit 1 or Crownpoint | - Ensures that groundwater restoration goals and surety are adequate prior to mining at Unit 1 or Crownpoint. | 15. Replace town of Crownpoint water supply wells NTUA-1, NTUA-2, BIA-3, BIA-5, and BIA-6. | - Ensures that town of Crownpoint water supply is not impacted (if the town decides not to move the wells, mining will not occur at the Crownpoint site). |
| | 3. Do not exceed maximum flow rate of 15,000 Lpm (4000 gpm) at ion exchange plant. | - Ensures potential risk scenarios are within the scope of the EIS/SER review. | 14. In the event of vertical excursion, explore significant aquifers above Dakota sandstone aquifer for vertical excursions. | - Ensures that all aquifers cntaminated by vertical excursions are identified and cleaned up. | | |

**TABLE 3. GROUNDWATER (Continued)**

| ALTERNATIVES | Church Rock | | UNIT 1 | | CROWNPOINT | |
|---|---|---|---|---|---|---|
| | IMPACTS | COMMENTS | IMPACTS | COMMENTS | IMPACTS | COMMENTS |
| **ALTERNATIVE 3 (STAFF-RECOMMENDED ACTION)** | 4. Establish NRC-approved effluent and environmental monitoring program. | - Ensures licensee's environmental monitoring program meets NRC regulatory requirements. | | | | |
| | 5. Establish baseline water quality data at NRC-specified locations in well field. | - Improves baseline characterization and reduces risk of inadequate restoration. | | | | |
| | 6. Collect sufficient water quality data and conduct sufficient hydrologic confinement tests to characterize the Cow Springs aquifer. | - Reduces risk of Cow Springs aquifer contamination from vertical excursions. | | | | |
| | 7. Conduct acceptable groundwater restoration demonstration; determine number of pore volumes required for restoration; determine amount of surety based on demonstration. | - Reduces risk of inadequate groundwater restoration by setting an adequate level of surety. | | | | |

**TABLE 3. GROUNDWATER (Continued)**

| ALTERNATIVES | Church Rock | | UNIT 1 | | CROWNPOINT | |
|---|---|---|---|---|---|---|
| | IMPACTS | COMMENTS | IMPACTS | COMMENTS | IMPACTS | COMMENTS |
| **ALTERNATIVE 3 (STAFF-RECOMMENDED ACTION)** | 8.Conduct Westwater Canyon aquifer step-rate injection test. | - Reduces risk of contaminating overlying aquifers from vertical excursions caused by high injection pressures. | | | | |
| | 9. Develop NRC-approved groundwater restoration plan. | - Reduces risk that groundwater will not be adequately restored. | | | | |
| | 10. Maintain adequate financial surety to cover groundwater restoration costs. | - Reduces risk that groundwater will not be adequately restored. | | | | |
| | 11. Complete all wells to NRC- established specifications. | - Reduces risk of contaminating overlying aquifers from vertical excursions. | | | | |
| **ALTERNATIVE 4 (NO ACTION)** | No impacts to groundwater. | | Same as for Church Rock. | | Same as for Church Rock. | |

**TABLE 4. SURFACE WATER**

| ALTERNATIVES | Church Rock | | UNIT 1 | | CROWNPOINT | |
|---|---|---|---|---|---|---|
| | IMPACTS | COMMENTS | IMPACTS | COMMENTS | IMPACTS | COMMENTS |
| **ALTERNATIVE 2 (MODIFIED ACTION)** | Impacts more significant than under Alternative 3 (no mitigation measures except those proposed by HRI). | Surface water impacts in Church Rock are expected to be minimal under both Alternatives 2 and 3. Under Alternative 2 no design details have been provided to NRC by HRI. | Same as for Church Rock. | | Same as for Church Rock. | |
| **ALTERNATIVE 3 (STAFF-RECOMMENDED ACTION)** | Impacts less significant than under Alternative 2 (staff-recommended mitigation measures plus those proposed by HRI):<br><br>- No construction of wastewater retention ponds prior to NRC approval of embankment engineering system. | Under Alternative 3, the licensee will be required to provide design details to the NRC Staff for approval of its waste water retention ponds prior to operation. The NRC Staff has provided additional guidance to HRI for design of surface water impoundments and erosion protection measures, which will further minimize any potentially adverse impacts from construction of the facility. | Same as for Church Rock. | | Same as for Church Rock. | |
| **ALTERNATIVE 4 (NO ACTION)** | No impacts to surface water | | Same as for Church Rock. | | Same as for Church Rock. | |

## TABLE 5. TRANSPORTATION RISK

| ALTERNATIVES | Church Rock | | UNIT 1 | | CROWNPOINT | |
|---|---|---|---|---|---|---|
| | IMPACTS | COMMENTS | IMPACTS | COMMENTS | IMPACTS | COMMENTS |
| **ALTERNATIVE 2 (MODIFIED ACTION)** | Impacts more significant than under Alternative 3 (no mitigation measures except those proposed by HRI). | Although the number of shipments of $U_3O_8$ and other materials would be the same under both Alternatives 2 and 3, transportation risk would be reduced under Alternative 3 because of additional NRC-required safety measures. | Same as for Church Rock. | | Same as for Church Rock. | |
| **ALTERNATIVE 3 (STAFF-RECOMMENDED ACTION)** | Impacts less significant than under Alternative 2 (staff-recommended mitigation measures plus those proposed by HRI):<br><br>1. All delivery trucks must carry appropriate certifications of safety inspections.<br><br>2. All delivery trucks must hold appropriate licenses. | | Same as for Church Rock. | | Same as for Church Rock. | |
| **ALTERNATIVE 4 (NO ACTION)** | No increased transportation risk. | | Same as for Church Rock. | | Same as for Church Rock. | |

## TABLE 6. HEALTH PHYSICS AND RADIOLOGICAL IMPACTS

| ALTERNATIVES | Church Rock | | UNIT 1 | | CROWNPOINT | |
|---|---|---|---|---|---|---|
| | IMPACTS | COMMENTS | IMPACTS | COMMENTS | IMPACTS | COMMENTS |
| **ALTERNATIVE 2 (MODIFIED ACTION)** | Impacts more significant than under Alternative 3 (no mitigation measures except those proposed by HRI). | Radiological impacts in Church Rock are expected to be minimal under both Alternatives 2 and 3. HRI will restrict access to operating and restoring wellfields, which will reduce potential exposures to the public. | Same as for Church Rock. | | Same as for Church Rock. | |
| **ALTERNATIVE 3 (STAFF-RECOMMENDED ACTION)** | Impacts less significant than under Alternative 2 (staff-recommended mitigation measures plus those proposed by HRI):<br><br>1. All $U_3O_8$ must be stored inside restricted area; liquid oxygen tanks must be located in well fields; other chemical storage tanks must be located on concrete pad near waste retention pond. | Under Alternative 3, HRI would be required to clean-up the wellfields (or any other part of the restricted area) after use before allowing unrestricted access. This will allow NRC staff to verify compliance with regulatory clean-up standards for those affected areas related to the mining process. | Same as for Church Rock. | | Same as for Church Rock. | |

**TABLE 6. HEALTH PHYSICS AND RADIOLOGICAL IMPACTS (Continued)**

| ALTERNATIVES | Church Rock | | UNIT 1 | | CROWNPOINT | |
|---|---|---|---|---|---|---|
| | IMPACTS | COMMENTS | IMPACTS | COMMENTS | IMPACTS | COMMENTS |
| **ALTERNATIVE 3 (STAFF-RECOMMENDED ACTION)** | 2. Maintain an area within restricted area boundary for storing contaminated materials prior to disposal; all contaminated waste must be disposed of at NRC- or Agreement State-licensed radioactive waste disposal site. | | | | | |
| **ALTERNATIVE 4 (NO ACTION)** | No health physics or radiological impacts. | | Same as for Church Rock. | | Same as for Church Rock. | |

## TABLE 7. ECOLOGY

| ALTERNATIVES | Church Rock | | UNIT 1 | | CROWNPOINT | |
|---|---|---|---|---|---|---|
| | IMPACTS | COMMENTS | IMPACTS | COMMENTS | IMPACTS | COMMENTS |
| **ALTERNATIVE 2 (MODIFIED ACTION)** | Impacts more significant than under Alternative 3 (no mitigation measures except those proposed by HRI). | Ecological impacts in Church Rock are expected to be minimal under both Alternatives 2 and 3. The amount of land disturbed in Section 8 would be the same (between 140 and 150 acres) under Alternatives 2 and 3. | Same as for Church Rock. | Same as for Church Rock. The amount of land disturbed in Unit 1 would be the same (between 896 and 1,536 acres) under Alternatives 2 and 3. | Same as for Church Rock. | Same as for Church Rock. The amount of land disturbed in Crownpoint would be the same (638 acres) under Alternatives 2 and 3. |
| **ALTERNATIVE 3 (STAFF-RECOMMENDED ACTION)** | Impacts less significant than under Alternative 2 (staff-recommended mitigation measures plus those proposed by HRI):<br><br>1. Revegetate disturbed areas with NRC-recommended seed mixture.<br><br>2. Follow NRC guidelines listed in FEIS for revegetating disturbed areas.<br><br>3. Implement methods for discouraging waterfowl use of project retention and evaporation ponds. | Under Alternative 3, impacts would be would be further reduced because revegetation guidelines recommended by the NRC Staff (which were adopted from the Navajo Nation EPA guidelines) were specifically designed for the terrestrial and meteorological environment in which the project would be located.<br><br>Additionally, Alternative 3 includes measures to discourage waterfowl use of project ponds, which should reduce potential impacts to waterfowl in the area. | Same as for Church Rock. | | Same as for Church Rock. | |

**TABLE 7. ECOLOGY (Continued)**

| ALTERNATIVES | Church Rock | | UNIT 1 | | CROWNPOINT | |
|---|---|---|---|---|---|---|
| | IMPACTS | COMMENTS | IMPACTS | COMMENTS | IMPACTS | COMMENTS |
| **ALTERNATIVE 4 (NO ACTION)** | No impacts to ecological resources. | | Same as for Church Rock. | | Same as for Church Rock. | |

**TABLE 8. LAND USE**

| ALTERNATIVES | Church Rock | | UNIT 1 | | CROWNPOINT | |
|---|---|---|---|---|---|---|
| | IMPACTS | COMMENTS | IMPACTS | COMMENTS | IMPACTS | COMMENTS |
| **ALTERNATIVE 2 (MODIFIED ACTION)** | Impacts same as under Alternative 3 (no grazing permits affected; no allottee lands affected). | Land use impacts in Church Rock are expected to be minimal under both Alternatives 2 and 3. Surface rights to Section 8 of the project are owned by HRI, and therefore no grazing permits or allottee lands will be affected. | Impacts more significant than under Alternative 3 (no mitigation measures except those proposed by HRI). | Land use impacts from temporary disruption of livestock grazing and potential relocation of residents within Unit 1 boundaries. | Impacts more significant than under Alternative 3 (no mitigation measures except those proposed by HRI). | Land use impacts from temporary disruption of livestock grazing. |
| **ALTERNATIVE 3 (STAFF-RECOMMENDED ACTION)** | Impacts same as under Attachment 2 (no grazing permits affected; no allottee lands affected). | | Impacts less significant than under Alternative 2 (staff-recommended mitigation measures plus those proposed by HRI):<br><br>1. Compensate individuals who hold livestock grazing permits that would be disrupted.<br><br>2. Provide direct compensation to residents of allotted lands who are not signatories to the HRI leases but who may be required to relocate. | | Impacts less significant than under Alternative 2 (staff-recommended mitigation measures plus those proposed by HRI):<br><br>1. Compensate individuals who hold livestock grazing permits that would be disrupted. | |
| **ALTERNATIVE 4 (NO ACTION)** | No land-use impacts. | | Same as for Church Rock. | | Same as for Church Rock. | |

**TABLE 9. SOCIOECONOMICS**

| ALTERNATIVES | Church Rock | | UNIT 1 | | CROWNPOINT | |
|---|---|---|---|---|---|---|
| | IMPACTS | COMMENTS | IMPACTS | COMMENTS | IMPACTS | COMMENTS |
| **ALTERNATIVE 2 (MODIFIED ACTION)** | Impacts more significant than under Alternative 3 (no mitigation measures except those proposed by HRI). | Adverse socioeconomic impacts from mining on Church Rock are expected to be minor under both Alternatives 2 and 3. The number of jobs created (approximately 60), the amount of income generated (between $1-1.7 million annually), and the amount of tax revenues generated (at least $250,000) would be the same under both Alternatives 2 and 3. | Same as for Church Rock. | Same as for Church Rock. The number of jobs created (approximately 57), the amount of income generated (approximately $1.6 million annually), and the amount of tax revenues generated (at least $250,000) would be the same under Alternatives 2 and 3. | Same as for Church Rock. | Same as for Church Rock. The number of jobs created (approximately 66), the amount of income generated (approximately $1.8 million annually), and the amount of tax revenues generated (at least $250,000) would be the same under Alternatives 2 and 3. |
| **ALTERNATIVE 3 (STAFF-RECOMMENDED ACTION)** | Impacts less significant than under Alternative 2 (staff-recommended mitigation measures plus those proposed by HRI):<br><br>1. Document intention to hire local Navajo in written project hiring plan.<br><br>2. Provide annual report concerning employment of local Navajo. | Under Alternative 3, beneficial effects would be increased because the Navajo hiring practices recommended by NRC Staff would help ensure that local residents benefit from the project. | Same as for Church Rock. | | Same as for Church Rock. | |

**TABLE 9. SOCIOECONOMICS (Continued)**

| ALTERNATIVES | Church Rock | | UNIT 1 | | CROWNPOINT | |
|---|---|---|---|---|---|---|
| | IMPACTS | COMMENTS | IMPACTS | COMMENTS | IMPACTS | COMMENTS |
| **ALTERNATIVE 3 (STAFF-RECOMMENDED ACTION)** | 3. Develop memorandum of understanding with local governments to outline responsibilities for emergency medical response and training. | Alternative 3 also includes the additional measure of developing an MOU to ensure that local governments do not have to pay for increased fire and emergency medical services. | | | | |
| **ALTERNATIVE 4 (NO ACTION)** | No socioeconomic impacts. | | Same as for Church Rock. | | Same as for Church Rock. | |

**TABLE 10. AESTHETICS**

| ALTERNATIVES | Church Rock | | UNIT 1 | | CROWNPOINT | |
|---|---|---|---|---|---|---|
| | IMPACTS | COMMENTS | IMPACTS | COMMENTS | IMPACTS | COMMENTS |
| **ALTERNATIVE 2 (MODIFIED ACTION)** | Impacts more significant than under Alternative 3 (no mitigation measures except those proposed by HRI). | Impacts on aesthetics at Church Rock are expected to be minimal under both Alternatives 2 and 3. | Same as for Church Rock. | | Same as for Church Rock. | |
| **ALTERNATIVE 3 (STAFF-RECOMMENDED ACTION)** | Impacts less significant than under Alternative 2 (staff-recommended mitigation measures plus those proposed by HRI):<br><br>- Develop and implement NRC-approved site reclamation plan. | Under Alternative 3, the long-term impacts (e.g., permanently disturbed land areas) would be minimized because of the development and implementation of an NRC-approved reclamation plan by the licensee -- which would include the revegetation guidelines discussed under ecological resources. | Same as for Church Rock. | | Same as for Church Rock. | |
| **ALTERNATIVE 4 (NO ACTION)** | No impacts to aesthetic resources. | | Same as for Church Rock. | | Same as for Church Rock. | |

## TABLE 11. CULTURAL RESOURCES

| ALTERNATIVES | Church Rock | | UNIT 1 | | CROWNPOINT | |
|---|---|---|---|---|---|---|
| | IMPACTS | COMMENTS | IMPACTS | COMMENTS | IMPACTS | COMMENTS |
| **ALTERNATIVE 2 (MODIFIED ACTION)** | Impacts more significant than under Alternative 3 (no mitigation measures except those proposed by HRI). | Cultural resource impacts are expected to be minimal at Church Rock for both Alternatives 2 and 3. | Same as for Church Rock. | | Same as for Church Rock. | |
| **ALTERNATIVE 3 (STAFF-RECOMMENDED ACTION)** | Impacts less significant than under Alternative 2 (staff-recommended mitigation measures plus those proposed by HRI):<br><br>- Develop and implement NRC-approved cultural resources management plan. | Under Alternative 3, cultural resource protection would be enhanced because of the development and implementation of an NRC-approved cultural resources management plan. The plan would include additional NRC Staff recommended measures in the event that HRI's policy of "total avoidance' is not practicable. | Same as for Church Rock. | | Same as for Church Rock. | |
| **ALTERNATIVE 4 (NO ACTION)** | No impacts to cultural resources. | | Same as for Church Rock. | | Same as for Church Rock. | |

**TABLE 12. ENVIRONMENTAL JUSTICE**

| ALTERNATIVES | Church Rock | | UNIT 1 | | CROWNPOINT | |
|---|---|---|---|---|---|---|
| | IMPACTS | COMMENTS | IMPACTS | COMMENTS | IMPACTS | COMMENTS |
| **ALTERNATIVE 2 (MODIFIED ACTION)** | Impacts more significant than under Alternative 3 (no mitigation measures except those proposed by HRI). | Adverse environmental justice impacts are potentially significantly higher under Alternative 2 than under Alternative 3. | Same as for Church Rock. | | Same as for Church Rock. | |
| **ALTERNATIVE 3 (STAFF-RECOMMENDED ACTION)** | Impacts less significant than under Alternative 2 (staff-recommended mitigation measures plus those proposed by HRI):<br><br>1. In the event of lixiviant excursion, notify Navajo Nation, BIA, and BLM by telephone within 24 hours and by letter within 7 days. Provide written report within 60 days.<br><br>2. In the event of retention pond leak, notify Navajo Nation, BIA, and BLM by telephone within 48 hours and provide written report within 30 days. | Under Alternative 3, potentially significant environmental justice impacts would be avoided because HRI would implement the NRC Staff recommended measures for all resource areas. Additionally, the NRC Staff has included the Navajo Nation regulatory authorities in oversight and decision making regarding HRI's mining project in order to provide the Navajo Nation a more active role in regulating the project. | Same as for Church Rock. | | Same as for Church Rock. | |

**TABLE 12. ENVIRONMENTAL JUSTICE (Continued)**

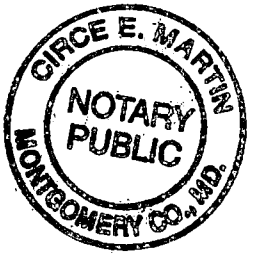
| ALTERNATIVES | Church Rock | | UNIT 1 | | CROWNPOINT | |
|---|---|---|---|---|---|---|
| | IMPACTS | COMMENTS | IMPACTS | COMMENTS | IMPACTS | COMMENTS |
| **ALTERNATIVE 3 (STAFF-RECOMMENDED ACTION)** | 3. In the event of solution spill or embankment failure, notify Navajo Nation, BIA, and BLM by telephone within 48 hours and provide written report within 7 days.<br><br>4. Work with U.S.EPA and State of New Mexico to involve Navajo Nation in UIC permitting.<br><br>5. Facilitate negotiations between State of New Mexico and Navajo Nation in water rights permitting.<br><br>6. Consult with traditional practitioners of the Church Rock Chapter to ascertain whether specific ceremonies should be facilitated on project land. | | | | | |
| **ALTERNATIVE 4 (NO ACTION)** | No environmental justice impacts. | | Same as for Church Rock. | | Same as for Church Rock. | |

7. Based on the Staff's comparative analysis in the FEIS and summarized in Tables 1-12, above, Alternative 3 (Staff Recommended Action) provides the benefits of uranium production and was superior to Alternative 2 (Modified Action) with respect to mitigating environmental impacts from the project. Similarly, Alternative 3 (Staff Recommended Action) was considered favorable to Alternative 4 (No Action) because the environmental impacts are acceptable (*i.e.*, insignificant and/or mitigable), and results in the benefits of domestic uranium production and postive socioeconomic effects on the Crownpoint community. Thus, these benefits (with acceptable environmental impacts) outweigh the benefits of the No Action alternative.

8. The foregoing is true and correct to the best of my knowledge and belief.

Robert D. Carlson

Sworn and subscribed to before me
this 7 day of June, 1999




Circe E Martin
Notary Public
My commission expires: March 1, 2003

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION



BEFORE THE PRESIDING OFFICER



| | | |
|---|---|---|
| In the Matter of | ) | |
| | ) | Docket No. 40-8968-ML |
| HYDRO RESOURCES, INC. | ) | |
| 2929 Coors Road, Suite 101 | ) | (Leach Mining and Milling License) |
| Albuquerque, New Mexico 87120 | ) | |

CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF SUPPLEMENTAL RESPONSE TO QUESTION 7 POSED IN APRIL 21 ORDER" in the above-captioned proceeding have been served on the following by U.S. Mail, first class, or, as indicated by a single asterisk through deposit in the Nuclear Regulatory Commission's internal mail system, or, as indicated by double asterisks, by e-mail and U.S. Mail, first class, this 7th day of June, 1999:

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