RAS 7803

May 14, 2004

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

In the Matter of:	)	
	)	
HYDRO RESOURCES, INC.	)	Docket No. 40-8968-ML
P.O. Box 15910	)	ASLBP No. 95-706-01-ML
Albuquerque, NM 87174	)	
	)	

INTERVENORS' MOTION TO SUPPLEMENT THE FINAL ENVIRONMENTAL IMPACT STATEMENT FOR THE CROWNPOINT URANIUM PROJECT CHURCH ROCK SECTION 8

Pursuant to 10 C.F.R. § 2.730, Intervenors Eastern Navajo Diné Against Uranium Mining and Southwest Research And Information Center (collectively, "Intervenors"), hereby submit the following Motion To Supplement The Final Environmental Impact Statement for the Crownpoint Uranium Project Chruch Rock Section 8. In support of their Motion, Intervenors state the following.

INTRODUCTION

On January 5, 1998, the Nuclear Regulatory Commission Staff ("Staff") issued Hydro Resources, Inc. ("HRI") a source and byproduct material license authorizing HRI to conduct *in situ leach* ("ISL") uranium mining on four sites in Crownpoint and Church Rock in the Navajo Nation, New Mexico[1]. SUA-1508. In granting the license, the Staff relied on the conclusion of the Crownpoint Uranium Project ("CUP") Final Environmental Impact Statement, NUREG-1508 ("FEIS") that the CUP would be

[1] The sites are designated Section 8 and Section 17 in Church Rock and Crownpoint and Unit 1 in Crownpoint.

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environmentally acceptable and that potential impacts of the ISL operations could be mitigated. Letter from Joseph Holonich to Richard Clement (January 5, 1998).

The FEIS was published in February 1997. FEIS cover page. The FEIS evaluated five alternatives, including the proposed action of issuing HRI a byproduct and material license, and determined that the proposed action's impacts could be mitigated and the license should therefore be issued. FEIS at xxi.

On July 31, 2003, counsel for Intervenors sent a letter to the Staff alerting the Staff to a proposal by the Ft. Defiance Housing Corporation ("FDHC") to construct a 1,000 - unit housing development, called the Springstead Estates Project ("Springstead Estates"), within two miles of Section 8 and Section 17 in Church Rock. Letter from Eric Jantz to Mitzi Young and John Hull at 1 (July 31, 2003). In that letter, counsel for Intervenors requested that the Staff supplement the FEIS due to the significant new circumstance that would affect the CUP's environmental impacts. Id. at 2. Attached to the letter was an Environmental Assessment ("EA") prepared for the FDHC by an environmental consultant, which evaluated the Springstead Estates' potential environmental impacts. Id., attachment.

On November 13, 2003, the Staff responded to Intervenors' letter requesting supplementation of the FEIS. Letter from Gary Janosko to Eric D. Jantz at 1 (November 13, 2003). In that letter the Staff indicated that it would review the new information regarding Springstead Estates when it reviewed HRI's license renewal application. Id. However, in a Joint Status Report filed March 26, 2004, the Staff indicated that it had reviewed the EA and other documents and would not supplement the FEIS. Joint Status Report at 7 (March 26, 2004).

JURISDICTION

The Commission has jurisdiction to hear this matter pursuant to 10 C.F.R. § 2.730(a). This matter is no longer pending before the Presiding Officer. Memorandum and Order (Ruling on Restoration Action Plan), LBP-04-03, slip op., at 2 (February 27, 2004); Transcript of telephone conference at 45-47 (April 16, 2004). Thus, with respect to Section 8, the Licensing Board is without jurisdiction to hear this Motion, and jurisdiction lies with the Commission.

FACTS

On June 1, 2003, Howard Bitsui, an environmental consultant, generated an Environmental Assessment for the Ft. Defiance Housing Corporation, evaluating the environmental impacts of a proposed housing development within two miles of HRI's proposed Church Rock operations. EA at 1. The Springstead Estates Project will have up to 1,000 residential housing units. Id. Springstead Estates will be located on approximately 640 acres of private land located on Section 30 of Township 16 North, Range 16 West of the New Mexico Principal Meridian in McKinley County New Mexico. EA at 5. HRI Section 8 and Section 17 are located less than two miles north and northeast of the proposed housing development. FEIS at 2-25, EA at 25.

The CUP Final Environmental Impact Statement to Construct and Operate the Crownpoint Uranium Solution Mining Project, Crownpoint, New Mexico NUREG-1508 was published on February 28, 1997. The FEIS evaluated the environmental impacts the CUP would have on the environment of the surrounding communities. FEIS at iii

(February 28, 1997). The FEIS analyzed the CUP's environmental impacts at all four proposed mine sites[2]. FEIS at 2-26 – 2-28.

More specifically, the FEIS analyzed, among other things, the CUP's impacts with respect to hydrology, air quality, land use, and environmental justice at Church Rock. FEIS, Sections 4.3.1.3, 4.1.1.2, 4.8.1, and 4.12. The FEIS also analyzed the CUP's transportation risks. Id., Section 4. When the FEIS was published, the Church Rock area was described as "sparsely populated." FEIS at 3-6. HRI's Church Rock site was described as "undeveloped range land" with a few scattered residences located within two miles of the site, only some of which were inhabited throughout the year. Id. at 3-55. The FEIS noted that the estimated population of Church Rock was 1,742 in 1993. Id. However, by 2000 the community's population had grown to 2,802. EA at 13. The FEIS' characterization of the population in Church Rock as sparse and its distance from Sections 8 and 17 figured prominently in the former Presiding Officer's decision to uphold HRI's license for Section 8. In his partial initial decision dismissing Intervenors' environmental justice concerns, the Presiding Officer noted that the village of Church Rock was more than four miles from HRI's Church Rock Section 8 project and would not be affected by any pollution from HRI's operations. LBP-99-30, 50 NRC 77, 123 (1999). Additionally, the Presiding Officer stated that his visit to the mining site permitted him to "observe the vastness of the desert and raises serious questions about how this project at

[2]The FEIS analyzes the two contiguous Church Rock sites as one site. See e.g., FEIS, Section 4.3.1.3. Sections 8 and 17 began being treated as separate and distinct sites pursuant to the Presiding Officer's Memorandum and Order granting HRI's June 4, 1998 request to bifurcate the proceeding. Memorandum and Order (Scheduling and Partial Grant of Motion for Bifurcation) (September 22, 1998) (unpublished). Section 8 has now been essentially completely litigated. Memorandum and Order (Ruling on Restoration Action Plan), LBP-04-03, slip op., at 2 (February 27, 2004). Section 17 will be litigated with the remaining two sites in Crownpoint pursuant to the Commission's guidance. In the Matter of HRI, CLI-01-4, 53 NRC 31, 43 (2001).

Church Rock Section 8 could possibly have any serious adverse impact on the people of this area[3]." Id.

ARGUMENT

The Staff's failure to supplement the FEIS violates the National Environmental Policy Act of 1969 ("NEPA") for two reasons. First, NEPA requires an environmental impact statement ("EIS") to be supplemented after initial approval of a federal action when new circumstances arise that could be significantly affected by that action. Second, both the Council on Environmental Quality ("CEQ") and NRC regulations mandate EIS supplementation when new circumstances arise that could be significantly affected by an initially approved federal action.

I. NEPA Requires That An EIS Be Supplemented After Initial Approval Of A Federal Action Where New Circumstances Arise That Could Be Significantly Affected By That Action.

The National Environmental Policy Act is the nation's "basic national charter for protection of the environment." 40 C.F.R. § 1500.1. The purpose of NEPA is to:

> Declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation; and to establish a Council on Environmental Quality.

42 U.S.C. § 4321.

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[3] While the Church Rock community is rural, Intervenors disagree with any characterization of the area as largely unpopulated. Many families who occupy and use the land in various ways and to varying degrees inhabit Church Rock village and surrounding areas. See generally, Eastern Navajo Diné Against Uranium Mining's And Southwest Research And Information Center's Brief In Opposition To Hydro Resources Inc.'s Application For A Materials License With Respect To Environmental Justice Issues (February 19, 1999). For example, in 1999 between 350 and 450 people lived within a two and a half mile radius of HRI's Church Rock operations. Id., Exhibit 1, affidavit of Dr. Robert D. Bullard at 25. The Springstead Estates housing development would simply increase the existing population.

NEPA's policies and goals are supplementary to those in existing authorizations for federal agencies. 42 U.S.C. § 4335. Nothing in NEPA's purpose, policies, or goals sections affects an agency's statutory obligation to comply with environmental quality standards or criteria or to coordinate or consult with other agencies, or to base action on recommendation or certification of other agencies. Id. at § 4334.

To insure the federal government incorporates this commitment to environmental quality in decision-making, NEPA requires federal agencies to follow certain "action forcing" procedures. Among these procedures is the requirement, for every major federal action significantly affecting the quality of the human environment, that agencies prepare a detailed environmental impact statement, addressing any adverse environmental effects that cannot be avoided, alternatives to the proposed action, the relationship between local short-term uses and the maintenance and enhancement of long-term productivity of the environment. 42 U.S.C. § 4332(2). See also, Methow Valley, 490 U.S. at 348; Louisiana Energy Services (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 87 (1998) ("LES 2").

The EIS serves two purposes. First, the EIS insures that environmental values are included in the agency decision making process, requiring the agency to take a "hard look" at the environmental consequences of a proposed action. LES 2, 47 NRC at 87; Methow Valley, 490 U.S. at 349-50. Second, the EIS allows the public a chance to review and comment on the proposal and thus participate in the decision making process. LES 2, 47 NRC at 88; Methow Valley, 490 U.S. at 349-350.

However, an agency's obligation to consider the environmental consequences of its action does not end with the publication of a final EIS. Marsh v. Oregon Natural

Resources Council, 490 U.S. 360, 373 (1989). Federal agencies must still take a "hard look" at the environmental effects of their planned action, even after the proposal has received initial approval. Id. It would be inconsistent with NEPA's manifest concern with preventing uniformed action "for the blinders to adverse environmental effects, once unequivocally removed, to be restored prior to completion of an agency action simply because the relevant proposal has received initial approval." Id. at 371.

Not every new circumstance requires supplementation of a final EIS. In the Matter of HRI, CLI-01-4, 53 NRC 31, 52 (2001) citing Davis v. Latschar, 202 F.3d 359, 369 (D.C. Cir. 2000). In order for a new circumstance to warrant supplementation of an FEIS, it must reveal a "seriously different picture of the environmental impact of the proposed project from what was previously envisioned." In the Matter of HRI, CLI-99-22, 50 NRC 3, 14 (1999) quoting Sierra Club v. Froehlke, 816 F.2d 205, 210 (5th Cir. 1987). The significance of the impacts on the new circumstance must be evaluated subject to a "rule of reason", limiting review to environmental effects that can be reasonably forecast or have some likelihood of occurring. Northern States Power Co. (Prairie Island Nuclear Generating Plant Units 1 and 2, ALAB-455, 7 NRC 41,48 (1978); Arizona Public Service Co. (Palo Verde Nuclear Generating Station, Units 1,2 and 3), LBP-82-117A, 16 NRC 1964, 1992 (1982).

In this case, the CUP will clearly have significant impacts on Springstead Estates. HRI's groundwater pumping for its Church Rock Section 8 operations will likely affect the groundwater gradient when combined with groundwater pumping for drinking water from Springstead Estates. Affidavit of Michael G. Wallace ("Wallace") at ¶¶ 8, 18, attached hereto as Exhibit A. This effect on groundwater gradient may in turn affect

HRI's ability to balance its wellfield and control excursions. Id. at ¶ 8. Because of the close proximity of HRI's Church Rock Section 8 operations to Springstead Estates, excursions and groundwater gradient reversal could have serious consequences for the development's drinking water supply. Id. at ¶ 18.

The combined groundwater pumping from HRI's Section 8 operations and Springstead Estates could also cause vertical excursions. Id. at ¶ 19. If the groundwater flow is affected, groundwater could move away from HRI's wellfield toward the nearby Pipeline fault, causing a vertical excursion. Id. at ¶¶ 20-21. The combined effects of pumping from Section 8 and Springstead Estates could also change the pressure in the underground mine workings located at Section 17. Id. at ¶ 23. The change in pressure could further complicate HRI's ability to mitigate underground mine workings collapse, which could create pathways for vertical excursions. Id. at ¶¶ 22-24.

The radiological effects of HRI's Church Rock Section 8 operations on Springstead Estates should also be analyzed. The addition of a housing development was not part of the original receptor inventory considered when the MILDOS for Church Rock was run. Affidavit of Alan Eggleston ("Eggleston") at ¶ 10, attached hereto as Exhibit B. Since the development is proposed in a nearby area, airborne particulate emissions, from each emission point, including the satellite processing plant on Section 8 and the wellfields on Section 8 and Section 17, should be modeled for this receptor in all of its proposed stages. Id. Potential impacts from secondary contamination from soils and runoff water at Section 8 should also be considered as well as potential impacts from contaminated groundwater. Id.

Moreover, the current radiological assessment is not based on an industry standard processing plant such as the one at Uranium Resources, Inc.'s Kingsville Dome property in Texas. Id. at ¶ 11. Instead, the evaluation assumed a type of commercial processing facility that has never been tested. Id. HRI asserts that its proposed processing plant will have nearly no emissions. Id. If no emissions would be produced during production at Section 8, all gases such as radon and particulates that were recirculated during the production phase will have to be released during the restoration phase. Id. at ¶ 12.

HRI's Church Rock operations would also have a significant effect on the traffic patterns and accident rates on roads providing access to Springstead Estates. The FEIS' accident rate estimates for New Mexico routes 566 and 11/49 are based on historic usage. FEIS at 3-45. However, the introduction of an additional 4,400 individuals into the area will significantly change the traffic load on these roads and concomitantly affect the likelihood of an accident involving one of HRI's trucks transporting uranium slurry or hazardous materials. Eggleston at ¶¶ 9, 21.

Finally, the FEIS does not take into account the environmental justice implications associated with Springstead Estates. Springstead Estates will provide housing for low-income individuals and families. EA at 4. The housing development will be built in an area populated largely by Native Americans. Id. at 13. Because of this new and substantial environmental justice population located in close proximity to HRI's Church Rock Section 8 operations, the FEIS should be supplemented to analyze environmental justice impacts. Eggleston at ¶ 22.

Because the Springstead Housing development will likely be significantly affected by HRI's Church Rock operations, the Staff is required to supplement the FEIS. The Staff's failure to supplement the FEIS violates NEPA.

II. The Staff's Failure To Supplement The FEIS Violates CEQ And NRC Regulations.

The NRC Staff's failure to supplement the FEIS also violates the CEQ regulations governing supplementation of a final EIS, which require supplementation when new circumstances arise that are relevant to a project's environmental impacts. 40 C.F.R. § 1502.9(c)(1)(ii). The Staff's failure to supplement the FEIS also violates the NRC's regulations governing supplementation of a final EIS, which are essentially identical to those of the CEQ. 10 C.F.R § 51.92(a)(2).

A. The NRC Staff's Failure To Supplement The FEIS Violates CEQ Regulations.

NEPA created the Council on Environmental Quality. 42 U.S.C. § 4342. The purpose of the CEQ includes gathering and analyzing information on environmental trends, review the programs of federal agencies to ensure they are fulfilling NEPA's goals and develop and recommend to the President national policies to further NEPA's goals. Id. at § 4344. To fulfill its purpose, the CEQ promulgated regulations for the implementation of the action forcing provisions in NEPA Section 102(2). 40 C.F.R. § 1500.1; See 40 C.F.R. Parts 1500-1517. The CEQ regulations are binding on all federal agencies. 40 C.F.R. § 1507.2; Andrus v. Sierra Club, 442 U.S. 347, 357-358 (1979). Moreover, the CEQ's interpretation of NEPA is entitled to substantial deference. Andrus v. Sierra Club, 442 U.S. at 358.

The CEQ regulations provide that supplements to either a draft or final EIS are required under two circumstances. 40 C.F.R § 1502.9(c)(1). First, a federal agency must supplement a final EIS if the agency makes substantial changes in the proposed action that are relevant to environmental concerns. Id. at § 1502.9(c)(1)(i). Second, a federal agency must supplement a final EIS if significant new circumstances or information relevant to environmental concerns exists. Id. at § 1502.9(c)(1)(ii). An agency may supplement the EIS when it determines that doing so will further the purposes of the Act. Id. at § 1502.9(c)(2).

In this case, the Staff's failure to supplement the FEIS violates the mandate of § 1502.9(c)(1)(ii). As explained in Section I of this Motion, above, HRI's Church Rock Section 8 operations would have a significant effect on the Springstead Estates. The FEIS did not evaluate how the additional stress on groundwater from the combined pumping of HRI's Section 8 operations and Springstead Estates would affect groundwater quality. HRI's groundwater consumption from its Section 8 operations would interact with Springstead Estates' groundwater pumping to affect groundwater movement, putting the development's drinking water supply at risk. Wallace at ¶¶ 14-26. The radiological effects of HRI's Church Rock operations on residents of Springstead Estates should be analyzed, because the additional receptors that the development will bring in close proximity to HRI's operations were not accounted for in the FEIS. Eggleston at ¶ 10. The risks posed by HRI's transportation of radioactive and hazardous materials should be analyzed. The FEIS risk assessment for HRI trucks carrying radioactive and hazardous materials is based on traffic data that assume much lighter traffic than that associated with a 1,000 - unit housing development in close

proximity to HRI's Church Rock operations. Id. at ¶¶ 19-21. Finally, the FEIS does not take into account the environmental justice implications associated with Springstead Estates. Because of the substantial environmental justice population that Springstead Estates will bring in close proximity to HRI's Church Rock operations, the FEIS should be supplemented to analyze environmental justice impacts. Id. at ¶ 22. Because significant new circumstances relevant to the environmental impacts of HRI's Church Rock operations at Section 8 have arisen, the NRC Staff must supplement the FEIS pursuant to 40 C.F.R. § 1502.9(c)(1)(ii).

B. The NRC Staff's Failure To Supplement The FEIS Violates NRC Regulations.

The Nuclear Regulatory Commission has likewise adopted regulations to implement NEPA Section 102(2), consistent with the NRC's other governing statutes, "and which reflect the Commission's announced policy to take account of the [1978 CEQ regulations]". 10 C.F.R. § 51.10(a). The NRC's regulations implementing NEPA include guidance on when a final environmental impact statement should be supplemented. The NRC regulations provide that if the proposed action has not been taken, the Staff will prepare a supplement to a final environmental impact statement under two circumstances. 10 C.F.R. § 51.92(a). First, the Staff will prepare a supplement to a final EIS if there are substantial changes in the proposed action that are relevant to the environmental concerns. 10 C.F.R. § 51.92(a)(1). Second, the Staff will prepare a supplement to a final EIS if there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts. 10 C.F.R § 51.92(a)(2). The Staff may also prepare a supplement to a final

environmental impact statement, when, in its opinion, preparation of a supplement will further the purposes of NEPA. Id. at § 51.92(b).

In this case, the Staff's failure to prepare a supplement to the FEIS violates 10 C.F.R § 51.92(a)(2). The proposed action has not been taken and HRI's ISL operations at Church Rock Section 8 would have significant environmental impacts on groundwater, radiological air emissions, transportation, and environmental justice affecting Springstead Estates. See Section I of this Motion, above.

Restricting supplementation of a final EIS to the time before the proposed action has been taken where the proposed action is issuance of a license turns NEPA on its head. The Supreme Court has specifically determined where there is still a major federal action to take place and new circumstances arise which would be affected by that major federal action, a final EIS must be supplemented. Marsh v. Oregon Natural Resources Council, 490 U.S. at 373. Here, major federal action remains.

The proposed action, according to the FEIS, is to "issue HRI a source materials license for the construction and operation of facilities for ISL uranium mining and processing at the Church Rock, Unit 1, and Crownpoint sites." FEIS at 1-1. While the Staff did issue HRI a source materials license for its Church Rock, Unit 1, and Crownpoint sites, there has been no final agency action with respect to that license. See 10 C.F.R. §§ 2.770, 2.1251, and 2.1259; See also, Bennet v. Spear, 520 U.S. 154, 177-178 (1997) (Two conditions must be satisfied for an agency action to be final. First, the action must represent the consummation of the agency's decision-making process. It cannot be of a tentative or interlocutory nature. Second, the action must be one by which rights or obligations have been determined, or from which legal consequences will flow.).

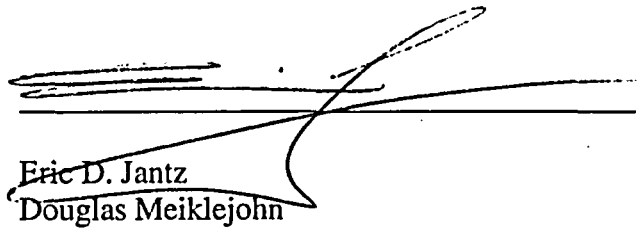
In this case, HRI's materials license has still to be adjudicated by the NRC. The NRC's decision-making process will not have been consummated until the adjudication is complete. Moreover, HRI's rights and obligations, as embodied in its materials license, have not been finally determined. Either the Commission or the Licensing Board could revoke or alter some or the entirety of HRI's materials license. Therefore, major federal action remains and the FEIS is subject to supplementation.

Alternatively, the NRC regulations are silent concerning under what circumstances a final environmental impact statement must be supplemented if the proposed action has been taken. Without such guidance, the CEQ regulations are applicable and clearly mandate supplementation of the FEIS due to the planned Springstead Estates development.

Because the FEIS does not analyze any of Section 8's environmental impacts on the Springstead Estates development, the Staff must supplement it pursuant to 10 C.F.R § 51.92(a)(2).

For the foregoing reasons, Intervenors respectfully request that a supplemental environmental impact statement be prepared to evaluate the environmental impacts of HRI's Section 8 ISL uranium mining operations on the Springstead Estates housing development.

Dated May 14, 2004.



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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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	)	Docket No. 40-8968-ML
HYDRO RESOURCES, INC.	)	ASLBP No. 95-706-01-ML
(P.O. Box 15910	)	
Rio Rancho, New Mexico 87174)	)	

CERTIFICATE OF SERVICE

I hereby certify that copies of "Intervenors' Motion To Supplement The Final Environmental Impact Statement For The Crownpoint Uranium Project Church Rock Section 8" in the above-captioned proceeding have been served on the following by U.S. Mail, first class, or, as indicated by an asterisk, by electronic mail and U.S. Mail, first class, this 14th day of May, 2004:

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May 14, 2004

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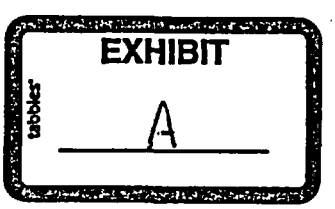
Rio Rancho, New Mexico 87174)	)	
	)	

AFFIDAVIT OF MICHAEL G. WALLACE IN SUPPORT OF EASTERN NAVAJO DINÉ AGAINST URANIUM MINING AND SOUTHWEST RESEARCH AND INFORMATION CENTER'S MOTION TO SUPPLEMENT THE FINAL ENVIRONMENTAL IMPACT STATEMENT FOR THE CROWNPOINT URANIUM PROJECT

On behalf of Eastern Navajo Diné Against Uranium Mining ("ENDAUM") and Southwest Research and Information Center ("SRIC"), Michael G. Wallace submits the following affidavit regarding the need to supplement the Final Environmental Impact Statement ("FEIS") for Hydro Resources, Inc.'s ("HRI") proposed Crownpoint Uranium Project ("CUP") in order to assess environmental impacts on the proposed Springstead Estates Project ("Springstead Estates").

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. The opinions expressed herein are based on my best professional judgment and extensive experience in hydrological analyses and groundwater transport modeling

2. I am making this affidavit on behalf of ENDAUM and SRIC to provide analysis, within my areas of expertise, of the potential effects of HRI's proposed *in situ*



leach ("ISL") uranium-mining operations of the proposed Crownpoint Uranium Project in Church Rock, Navajo Nation, New Mexico.

3. My education and experience as a professional hydrologist are described in my vitae, attached to this testimony as Exhibit A-1. I have a master's degree in Hydrology from the University of Arizona and I have extensive knowledge and experience in the movement of contaminants in ground water systems, as a consultant to industry and government agencies.

4. As a consultant, I help to define a given problem by evaluating existing knowledge and data and developing additional important data and knowledge through hydrologic techniques. This is known as developing a hydrogeologic conceptual model. My experience includes development of such models and the applying them to the valid prediction of contaminant transport through numerical modeling.

5. For much of the past fifteen years, I have provided my expertise in support of the development of conceptual and numerical models towards the performance assessment of several proposed and active national and international radioactive waste geologic repositories.

6. I reviewed the following materials in preparation for this affidavit:

- The 1997 CUP FEIS, prepared by the Nuclear Regulatory Commission in cooperation with the Bureau of Indian Affairs, and the Bureau of Land Management;
- The June 2003 Environmental Assessment ("EA") prepared by Howard Bitsui on behalf of the Ft. Defiance Housing Corporation.

7. After evaluating the two aforementioned documents, it is my professional opinion that the CUP FEIS should be supplemented to analyze the impact that the CUP on Sections 8 and 17 in Church Rock will have on the proposed Springstead Estates development.

8. Specifically, I am concerned about how Springstead Estates' water use will affect HRI's ability to contain groundwater contamination during its production operations and during restoration of the aquifer after production has ceased at both Section 8 and Section 17.

9. In Section III. D, the EA cites the Westwater Canyon Aquifer and the Dakota Aquifer as the possible underground sources of drinking water for the Springstead Estates. EA at 8.

10. The EA also mentions other potential water sources, such as from alluvial aquifers. Id. However, alluvial aquifers are an unlikely source for a domestic water supply because they are usually shallow, do not contain a large volume of water, and the groundwater in these aquifers is usually of poor quality.

11. It is my opinion that drinking water could also be supplied to Springstead Estates by hauling water from a remote location. It is unlikely that the Navajo Tribal Utility Authority would choose this option because of its high cost, when drilling wells on-site into the Westwater, Dakota or Cowsprings aquifers is an available, lower-cost, and possibly better quality option.

12. In my professional opinion, the most likely choice for a domestic water supply for the Springstead Estates development would be the Westwater, the Dakota, or

the Cowsprings aquifer. Of these three aquifers, the Westwater is the most likely aquifer to be used as a water supply because of its quality and hydraulic properties.

13. However, HRI's Church Rock operations could affect the Westwater, Dakota, or Cowsprings aquifers to varying degrees. No matter which aquifer Springstead Estates eventually uses as its drinking water source, the effects of HRI's Church Rock operations should be evaluated.

14. The effect of HRI's Church Rock operations on the Springstead Estates' drinking water supply could be significant.

15. In calculating water use by Springstead Estates, I assumed that each house in the development will house four people, and that each person uses an average of 150 gallons of water per day. Under these conservative assumptions, the development could pump 600,000 gallons of groundwater per day for domestic use.

16. This pumping rate is equivalent to a well pumping at over 400 gallons per minute ("gpm").

17. By comparison, the municipal wells in Crownpoint pump at under 300 gpm. The Crownpoint wells pumping at this combined rate alter the general ground water flow direction in areas as far away as the Unit 1 site (more than two and a half miles to the west), as show by Figure 3.10 of the FEIS. The original flow directions at Unit 1 were to the north by northeast, but were altered to almost due east due to the influence of the water supply wells.

18. Springstead Estates could pump much more than 300 gpm from either of the Westwater, Dakota, or Cowsprings aquifers, and is closer to the mining zones at Section 8 and Section 17 (under two miles away). Any resulting changes to flow

magnitude and direction due to the combined pumping of HRI's operations on either Section 8 or Section 17 and the that of the housing development need to be accounted for, and are not addressed in the most recent models used in support of NUREG-1508. Change in regional flow directions would render current monitoring, development, and remediation plans more indefensible and unreliable than they already are.

19. Furthermore, the groundwater pumping from either Section 8 or Section 17, combined with that of Springstead Estates, could result in vertical excursions.

20. The FEIS notes a potential fault, called the "Pipeline fault", trending southwest through Section 17. FEIS at 3-18, 3-20 Fig. 3.8. The Pipeline fault continues southwest through Section 17 into Sections 19 and 20. Fig. 3.8. Section 19 is directly north of Section 30, where the Springstead Estates are to be located, and Section 20 is directly northeast.

21. Groundwater pumping from either Section 8 or Section 17 of HRI's Church Rock operations, combined with Springstead Estates groundwater pumping, could affect groundwater flow so that pregnant lixiviant would flow toward the fault, ultimately causing contamination of overlying or underlying aquifers. This is particularly important because all the aquifers in the Church Rock area are of good quality, suitable for drinking water supplies. FEIS at 3-35.

22. Additionally, the NRC Staff should analyze how groundwater pumping from Springstead Estates affects HRI's ability to control excursions and restore groundwater in the context of the mine workings that exist on Section 17.

23. The FEIS acknowledges that HRI's groundwater pumping could change the pressure in underground mine workings that exist on Section 17. FEIS at 4-55 – 4-66.

This change in pressure could cause the mine workings to collapse, in turn causing vertical pathways for groundwater flow. FEIS at 4-56.

24. The additional groundwater pumping from Springstead Estates, in conjunction with HRI's groundwater pumping on either Section 8 or Section 17, could further complicate HRI's ability to mitigate underground mine workings collapse.

25. The mine workings also have implications for groundwater restoration. FEIS at 4-57 – 4-58. Dewatering effects of mine workings on Section 17 could have significantly diminished or eliminated reducing conditions in the aquifer. FEIS at 4-58. Thus, uranium may move further than would normally be predicted before it encounters reducing conditions in the aquifer. Id. This is significant because the FEIS evaluated natural attenuation as a means of assuring that groundwater contaminated by HRI's operations does not spread throughout the entire aquifer. FEIS at 4-39.

26. Groundwater pumping from Springstead Estates could further exaggerate this movement of uranium prior to encountering reducing conditions, making HRI's restoration efforts much more complicated. Should groundwater reach Springstead Estates' drinking water wells before encountering reducing conditions, the development's drinking water source could be jeopardized.

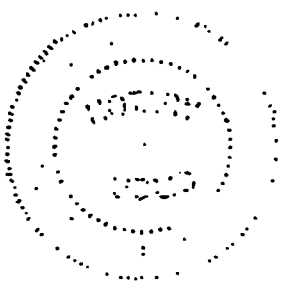
27. In sum, because of the potentially significant effect that HRI's operations could have on Springstead Estates' domestic water supply, in my professional opinion the NRC Staff should supplement the FEIS.

AFFIRMATION

I declare on this 13th day of May, 2004 at Albuquerque, New Mexico, under penalty of perjury that the foregoing is true and correct to the best of my knowledge, and that the opinions expressed herein are based on my best professional judgement.

Michael G. Wallace

Sworn and subscribed before me, the undersigned, a Notary Public in and for the State of New Mexico, on this 13th day of May, 2004 at Albuquerque, New Mexico.



Dolores A. Stoll

Michael Wallace
8500 Menaul Blvd., NE Suite B-335 Albuquerque, NM 87112
505-998-5192 mgw@globalhaptics.com

Curriculum Vitae

Education:
M.S. in Hydrology, University of Arizona, Tucson, AZ, USA (1989)
B.S. in Plant and Soil Science (Environmental Studies specialization), Southern Illinois University, Carbondale, IL, USA (1980)

Work History:

Current: President, Global Haptics, Inc.
1997 - present, Hydrogeologist Consultant to Sandia National Laboratories (through various sub-contractors)
1990-1997, Senior Hydrogeologist, RE/SPEC Inc., Albuquerque, NM
1986 -1990, Staff Hydrogeologist, IT Corp., Albuquerque, NM
1982-1986, Hydrologic Technician, Research Assistant, University of Arizona, Tucson AZ

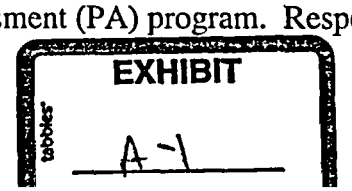
Technical Experience Summary:

Specific experience with a wide array of techniques in the quantitative and statistical analysis of ground water problems. These techniques include 3-D modeling of flow and solute transport, vadose zone modeling, multi-porosity flow and transport modeling, stochastic processes, probability modeling, ground water resource optimization, NAPL transport in the subsurface, hydraulic test analyses, coupling of rock mechanics with ground water flow codes, coupling of geochemical analyses with ground water flow and solute transport analyses, and finite element numerical model development.

Contributor on several investigations on viability of Yucca Mountain hydrogeology for long term disposal of high level radioactive waste. Also primary reviewer of a 3D regional hydrogeologic numerical model of the Yucca Mountain area conducted by scientists at Los Alamos National Laboratories. Most recently, pioneered the use of a video game engine to produce a scientific analysis. This study concerned potential volcanic dike intersections with the planned repository. The novel analysis, which provided significant benefits to the client, was conducted on an extremely tight schedule and was completed under budget.

Modeler of a groundwater flow and transport modeling effort concerning a proposed In-Situ Leachate (ISL) uranium mine system in northwestern New Mexico. This work provided a superior calibration to previous efforts, and produced radically different estimates of travel times from the mining facility to a network of water supply wells less than 2 km from the site.

Principal analyst in a groundwater flow and transport modeling effort for the Waste Isolation Pilot Project's (WIPP) Performance Assessment (PA) program. Responsibilities



include interaction with a large multidisciplinary body of earth scientists, physicists, and mathematicians; assimilation of information and diverse concepts; and the design, implementation, and interpretation of a model acceptable to the client, regulators, various scientific oversight panels, and other stakeholders.

Principal investigator on seven (WIPP) scenario screening efforts. Although all of the efforts were completed on schedule and within budget, one effort was successfully completed at less than a tenth of the cost originally estimated by the project. That effort also led to the first water table contour map for the WIPP vicinity.

Co-investigator in a 3-D paleohydrological / climate change conseqence modeling study of the upper groundwater system in the WIPP region.

Extensive experience working as part of interdisciplinary teams to evaluate the hydrologic performance of waste containment systems. On WIPP, helped develop a numerical simulator that analyzed the coupled processes of salt creep and brine inflow, related to excavations into the Salado Formation. On the Stripa project (Sweden) and the Finnish nuclear repository program, helped develop numerical simulators that analyzed the coupled processes of cement seal degradation and ground water inflow.

Experience with a large number of additional ground water modeling projects. These projects include a two dimensional study of ground water flow and contaminant transport through the Capitan Reef aquifer of Southeastern New Mexico, several 3D flow and solute transport modeling projects associated with injection of hazardous wastes into saline aquifers, and several modeling studies associated with the design of ground water remediation systems throughout the U.S.

Unsaturated zone modeling is also an area of expertise. One example concerns a mixed waste facility at the Nevada Test Site, in which a series of unsaturated flow and transport modeling studies of the area were conducted using three different mathematical techniques. The results of these analyses were used to assess the likelihood of landfill contaminants reaching the water table. More recently, conducted unsaturated zone modeling study that was a factor in the State of New Mexico's strengthening of the state's environmental requirements for oil and gas operations in the San Juan Basin.

Extensive project management experience. Client interaction, public relations, personnel and contractor management, budgeting, supplier negotiations, etc. C++, object oriented, scripting, and Fortran programming experience. Have worked extensively on Unix, VMS, and Windows platforms.

Extensive expert witness and litigation support experience (see related section).

Litigation Support Experience:

Expert witness support on behalf of a coalition of organizations regarding an application by a mining company to develop three in-situ uranium leachate mines in the vicinity of Crownpoint, NM, USA., 1997, 1998, 1999, 2002, 2003. Client Attorneys; New Mexico Environmental Law Center, Santa Fe, NM. Client contact info: Eric Jantz, phone; 505-989-9022, Also Chris Shuey; 505-262-1862

Expert consultant to U.S. Army Corps of Engineers, as a review panel member concerning a long-term regional groundwater flow model developed for the City of Gallup, New Mexico.

Litigation support with regard to a water rights dispute in a karst aquifer, Eddy County, NM. 1999, 2002

Scientific studies and expert witness support with regard to a proposal to dispose of oil field brines in a deep brine aquifer in the Delaware Basin in southeastern New Mexico. State of New Mexico, Before the Oil Conservation Division, Case No. 10693. 1993, Santa Fe, Representing Pronghorn Disposal Systems, Inc. Client attorney: Karen Aubrey, Santa Fe, NM

Litigation and expert witness support with regard to the "Vulnerable Area" of the San Juan Basin in northwestern New Mexico. State of New Mexico, Before the Oil Conservation Commission, Case No. 10436. 1992, Santa Fe. Representing Southwest Research and Information Center. Client attorney: Doug Meiklejohn, President, New Mexico Environmental Law Center, Santa Fe, NM , phone; 505-989-9022

Expert witness support with regard to a landfill permit hearing. State of New Mexico, Before the Secretary of the Environment Department, No. SW 91-01, 1991, Alamogordo, NM. Transcripts of proceedings, solid waste permit hearings. Representing the U.S. Air Force. Client attorney: Lt. Col. John Spurlin, U.S.A.F., phone; 623-536-7283

Litigation support with regard to a leaking ditch maintained by the Middle Rio Grande Conservancy District (MRGCD), 1991, Client Attorney: Ron Childress, Albuquerque, NM

Expert witness support with regard to a water rights dispute, Sierra County, NM., 1991, Client Attorney; Fred Abramowitz, Albuquerque, NM

Numerous presentations, meeting participation, and other interaction with the USEPA and the National Academy of Sciences (NAS) with regard to permitting activities associated with the Waste Isolation Pilot Plant (WIPP) in southeastern New Mexico. The WIPP is the nation's premier permanent repository for the disposal of radioactive waste.

Selected Publications and Abstracts:

J.L. Ramsey, R. Blaine, J.W. Garner, J.C. Helton, J.D. Johnson, L.N. Smith, and M. Wallace, 1998, *Radionuclide and Colloid Transport in the Culebra Dolomite and Associated Complementary Cumulative Distribution Functions in the 1996 Performance Assessment for the Waste Isolation Pilot* Reliability Engineering and System Safety 69 (2000). Elsevier Press.

Wallace, M., J. Ramsey, A. Treadway, M. Tierney, and D. Coffey, 1998, *Aquifer Model Complexity at the Waste Isolation Pilot Plant (WIPP)*, 1998 Spring Meeting of the American Geophysical Union, Boston, MA.

Marani, M., G. Grossi, F. Napolitano, M. Wallace, and D. Entekhabi, 1997, *Forcing, Intermittancy, and Land Surface Hydrological Partitioning*, Water Resources Research, Vol. 33, NO. 1, pages 167-175, Jan, 97.

Wallace, M.G., 1994, *Three-Dimensional Groundwater Refraction Patterns in the Northern Portion of the Delaware Basin. A Modeling Study.* American Geophysical Union 1994 Fall Meeting, San Francisco, CA.

Wallace, M. G., 1993, *A Total Dissolved Solids Map for the Northern Portion of the Capitan Aquifer*, New Mexico Geological Society 44th annual field conference and Guidebook, sponsored by the New Mexico Bureau of Mines and Mineral Resources, New Mexico Institute of Mining and Technology, Socorro, NM.

Corbet, T., and M. G.Wallace, 1993, *Post Pleistocene Patterns of Shallow Groundwater Flow in the Delaware Basin, Southeastern New Mexico and West Texas*, New Mexico Geological Society 44th annual field conference and Guidebook, sponsored by the New Mexico Bureau of Mines and Mineral Resources, New Mexico Institute of Mining and Technology, Socorro, NM.

Wallace, Michael G., and Tracy L. Christian-Frear, 1992, *New Tools to Aid in Scientific Computing and Visualization* , 3rd International High Level Radioactive Waste Management Conference, April 12-16, 1992, Las Vegas, Nevada

Alcorn, S. R., W. E. Coons, T. L. Christian-Frear, and M. G. Wallace, 1991, *Theoretical Investigations of Grout Seal Longevitiy. I. Geochemical Modeling of Grout-Groundwater Interactions - Flow and Diffusion Models*, Stripa Project Technical Report - -24, Stockholm, Sweden

Alcorn, S. R., T. L. Christian-Frear, and M. G. Wallace, 1991, *Degradation Modelling for the Concrete Silo in TVO's VLJ Repository*, Report YJT-91-09, Nuclear Waste Commission of Finnish Power Companies

Wallace, M., J. M. Pietz, B. Lauctes, J. B. Case, and D. E. Deal, 1990. *Coupled Fluid-Flow Modeling of Brines Flowing Through Deforming Salt Around the Excavations for the Waste Isolation Pilot Plant (WIPP) in the Permian Salado Formation*, Proceedings, Waste Management '90, Tucson, AZ.

Wallace, M., 1989. *A Three Dimensional Analysis of Flow and Solute Transport Resulting from Deep Well Injection into Faulted Stratigraphic Units*, M.S. Thesis, University of Arizona, Tucson, AZ.

Wallace, Michael G., and John Pietz, 1989. *A Three Dimensional Flow and Solute Transport Model of a Deep Well Injection System*, Proceedings: "Solving Groundwater Problems with Models", Feb. 7-9, 1989, Indianapolis, Indiana, jointly sponsored by the NWWA and the IGWMC.

Niou, S., J. Case, J. Pietz, M. Wallace and J. Zurkoff, 1987. *Coupled Fluid Flow and Salt Creep Analysis for Room Saturation of a Salt Repository*, Proceedings, International Waste Management 87, Tucson, AZ.

Selected Consultant Reports:

Wallace, M., 1996, *Potential Long-Term Effects of Potash Mining on Hydrogeologic Conditions in the Culebra Aquifer. Technical Report for Features, Events and Processes (FEP) package NS-11.* prepared for Sandia National Laboratories, WIPP Project.

Wallace, M., 1996, *Impacts of Interconnections with other Units on Hydrogeologic Conditions in the Culebra Aquifer. Technical Report for Features, Events and Processes (FEP) packages NS2, NS3, and NS7b.* prepared for Sandia National Laboratories, WIP Project.

Wallace, M.. and others, 1995, *Flow and Transport in the Dewey Lake/Dewey Lake Conceptual Model. Technical Report for Features, Events and Processes (FEP) package NS1.* prepared for Sandia National Laboratories, WIPP Project.

Wallace, M., 1995, *Potential Impacts of Climate Change on Groundwater Flow and Transport Conditions in the Culebra Aquifer. Technical Report for Features, Events and Processes (FEP) package NS-8b.* prepared for Sandia National Laboratories, WIPP Projec

Corbet, T. and M. Wallace, 1993, *Input from the Regional Flow Model to the WIPP Performance Assessment.* Monitored Milestone NS60M. prepared for the U.S. Department of Energy.

Comparative Analysis of the Multiphase Flow Models, PORFLOW, TOUGH, and TRACRN, 1993, Draft technical report prepared by RE/SPEC Inc. for Benchmark Environmental Corporation, Albuquerque, NM.

Holloman Air Force Base Landfill Application / Permit Plan Report (draft), 1992, Technical report prepared by Tierra Engineering Consultants, Inc., and RE/SPEC Inc. for the U.S. Army Corps of Engineers.

Degradation Modeling for the Concrete Silo in TVO's VLJ Repository, 1990. Technical report prepared by RE/SPEC Inc. for Teollisuuden Voima Oy, Helsinki Finland.

Engineered Alternatives Task Force, Culebra Far-Field Model, 1990 report, prepared by International Technology Corporation, Albuquerque, New Mexico, for Westinghouse Corporation, Carlsbad, NM.

Ground Water Monitoring Waiver U3ax/bl Land Disposal Unit, Nevada Test Site, Mercury , Nevada., 1989, Prepared by IT Corp. on behalf of REECo Inc. for the U.S. DOE, Nevada Operations Office.

Brine Sampling and Evaluation Program, 1988 report, prepared by International Technology Corporation, Albuquerque, New Mexico, for Westinghouse Corporation, Carlsbad, NM.

Application for Exemption to Continue Underground Injection of Banned Hazardous Waste, prepared by International Technology Corporation, Austin, Texas, for confidential client, Texas, 1988.

Application for Exemption to Continue Underground Injection of Restricted Hazardous Waste, prepared by International Technology Corporation, Austin, Texas, for confidential client, Texas, 1988.

Application for Exemption to Continue Underground Injection of Restricted Hazardous Waste, prepared by International Technology Corporation, Austin, Texas, for confidential client, Ohio, 1988.

Action Line Plan, ____ Landfill Site, ____ County, CO., September 1988. prepared by International Technology Corporation, Denver, Colorado, for confidential client, Colorado.

Plume Remediation Plan, ____ Landfill Site, ____ County, CO., November 1988. prepared by International Technology Corporation, Denver, Colorado, for confidential client, Colorado.

Program and Schedule for Ground-water Cleanup, ____ Toluene Site, 1987 report, prepared by International Technology Corporation, Denver, Colorado, for confidential client, Colorado.

May 14, 2004

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

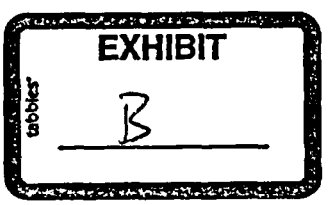
In the Matter of	)	
	)	
HYDRO RESOURCES, INC.	)	Docket No. 40-8968-ML
(PO Box 15910,	)	ASLBP No. 95-706-01-ML
Rio Rancho, New Mexico 87174)	)	
	)	

AFFIDAVIT OF ALAN EGGLESTON IN SUPPORT OF EASTERN NAVAJO DINÉ AGAINST URANIUM MINING AND SOUTHWEST RESEARCH AND INFORMATION CENTER'S MOTION TO SUPPLEMENT THE FINAL ENVIRONMENTAL IMPACT STATEMENT FOR THE CROWNPOINT URANIUM PROJECT

On behalf of Eastern Navajo Diné Against Uranium Mining ("ENDAUM") and Southwest Research and Information Center ("SRIC"), Alan Eggleston submits the following affidavit regarding the need to supplement the Final Environmental Impact Statement ("FEIS") for Hydro Resources, Inc.'s ("HRI") proposed Crownpoint Uranium Project ("CUP") in order to assess environmental impacts on the proposed Springstead Estates Project ("Springstead Estates").

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. The opinions expressed herein are based on my best professional judgment and extensive experience working in the uranium *in situ leach* ("ISL") mining industry.

2. I am making this affidavit on behalf of ENDAUM and SRIC to provide analysis, within my areas of expertise, of the potential effects of HRI's proposed ISL. uranium-mining operations on Church Rock Sections 8 and 17 sites of the proposed uranium project.



3. My education and experience are described in my curriculum vita, attached to this testimony as Exhibit B-1. I have over 25 years experience in the uranium mining industry working in management positions and field operations. My experience includes extensive work supporting ISL mine permit applications, including those for clients given in the attached CV. I have also drafted over 60 technical reports on the environmental impacts of ISL uranium mining including those listed in the attached CV.

4. As a partner in the consulting firm Eggleston, Holmes & Associates, I have prepared numerous ISL mine permit applications including those for Total (1992), Cogema (1993), URI (1986-1995), and HRI (1990's), as well as those listed in the attached CV.

5. I reviewed the following materials in preparation for this affidavit:

- The 1997 CUP FEIS, prepared by the Nuclear Regulatory Commission in cooperation with the Bureau of Indian Affairs, and the Bureau of Land Management;
- The June 2003 Environmental Assessment (EA) prepared by Howard Bitsui on behalf of the Ft. Defiance Housing Corporation.

6. After evaluating the two aforementioned documents, it is my professional opinion that the CUP FEIS should be supplemented to analyze the impact that the CUP on Sections 8 and 17 in Church Rock will have on the proposed Development.

7. Specifically, I am concerned about the potential radiological impacts of HRI's operations on Springstead Estates. I base this concern on three factors: First, that previous uranium mining in the area may have adversely affected the environment at the Springstead site; second, that a large human population will be living at Springstead Estates during the operational periods of HRI's proposed Section 8 and Section 17 ISL

mines; and third, and most importantly, that the radiological assessment for the HRI mines at Church Rock Sections 8 and 17 never took into account the presence of such a large population within a short distance from an NRC licensed facility.

8. Regarding existing radiological impacts on Springstead, the Navajo Nation Environmental Protection Agency ("NNEPA") stated in comments on the EA (at. 34, Appendix C.8, p.2) that the housing site may already be subject to radiological impacts from previous nearby uranium mining. In fact, NNEPA would not give a clearance letter to the development regarding health impacts associated with air quality because of unresolved concerns over the possible presence of "hazardous materials, contamination, toxic chemicals, gasses and radioactive substances" in and around the development, and that further study might be warranted. EA at 11.

9. With plans for construction of up to 1,000 single-family housing units, the Springstead Estates development will eventually be home to 4,300 to 4,400 people, based on the average Navajo family size of 4.36 persons as determined in the 2000 Census. (Source: "Data from Census 2000", extracted by Trib Choudary, Division of Economic Development, Navajo Nation, Window Rock, Arizona, 2002-2003 at 1). This means at full development, Springstead Estates will increase the existing Church Rock Chapter population of 2, 802 (EA at 13) by 1.5 times. Construction of the housing development will be phased over several years (EA at 1, 6), during the expected 8-year operational period of HRI's Section 8 and Section 17 mines. FEIS at 2-26.

10. The addition of a significant housing development was not part of the original receptor inventory considered when the MILDOS for Church Rock Sections 8 and 17 was run. Since the development is proposed in a nearby area, airborne particulate emissions should be modeled for this receptor in all of its proposed stages, from all

emission points on Section 8 and Section 17, including the satellite processing plant on Section 8 and the well fields on both sections. Potential impacts from secondary contamination from soils and runoff water on both Section 8 and Section 17 should also be considered as well as potential impacts from contaminated groundwater. A number of interpretations of the proposed HRI plans are possible, and some could be important sources of radiological impacts to the environment.

11. Moreover, the current radiological assessment is not based on an industry standard processing plant such as the one at Uranium Resources, Inc.'s Kingsville Dome property in Texas. Instead, the evaluation assumed a type of commercial processing facility that has never been tested. HRI asserts that its proposed processing plant will have nearly no emissions because any gases and particulates generated during production will be recirculated through a closed loop system. Although a facility of this type is highly desirable and may even by technologically possible, it has no track record.

12. The unproven technology proposed by HRI would be particularly important in terms airborne emissions during groundwater restoration for both Section 8 and Section 17. Since the Church Rock operations would not produce any emissions during production, all the gases such as radon and particulates that were recirculated during production will have to be released at the restoration phase. If HRI chooses to dispose of liquid waste through irrigation or land application, a substantial amount of radioactive material could be released and the effect of this release on Springstead Estates should be analyzed. There should at least be consideration of the possible impacts from an upset in the proposed HRI methodology.

13. There are also the public safety and land use compatibility impacts of HRI's ISL operations on the Development that need to be considered.

14. Based upon my experience, uranium ISL mining is normally not an activity that is conducted in very close proximity to housing developments, schools, health centers and other centers of human activity.

15. Continued population growth, in addition to the growth associated with Springstead Estates, may well change the nature of HRI's Church Rock site from a sparsely populated rural setting to a much more developed area.

16. Based on the plans discussed in the EA, it would not be unexpected to see other types of businesses, such as retail stores, food services, and health care facilities follow the housing development. EA at 4.

17. HRI's Church Rock operations could potentially substantially affect Springstead Estates and corollary development associated with the housing project in terms of traffic patterns and radioactive and toxic waste spill response and remediation.

18. The Nuclear Regulatory Commission Staff should evaluate possible land use conflicts between increased non-industrial development and HRI's Church Rock operations.

19. The NRC Staff should supplement the FEIS to evaluate the effects of HRI's transportation of radioactive and hazardous materials on Springstead Estates.

20. The FEIS evaluates the risk of accidents involving trucks transporting radioactive or hazardous materials based on historic traffic data. FEIS at 3-45.

21. However, Springstead Estates would significantly change the amount of traffic on New Mexico routes 566 and 11/49, which provide access to the housing development, and therefore increase the likelihood of an accident involving a truck transporting radioactive or hazardous materials. This increased risk should be evaluated in a supplement to the FEIS.

22. Finally, the FEIS does not consider the environmental justice implications of HRI's Church Rock operations on the Springstead Estates development. Springstead Estates will provide housing for low-income individuals and families. EA at 4. Springstead Estates will be located in an area that is inhabited predominantly by Native Americans. Id. at 13; FEIS at 3-80. The NRC Staff should evaluate the environmental justice impact of HRI's Church Rock operations on the large and densely concentrated environmental justice population that Springstead Estates will house.

23. In sum, because of the potentially significant effect that HRI's operations could have on Springstead Estates in terms of radiological air emissions, land use and risk of accidents involving radioactive and hazardous materials, in my professional opinion, the Staff should supplement the FEIS.

AFFIRMATION

I declare on this 14 day of May, 2004 at Austin, Texas, under penalty of perjury that the foregoing is true and correct to the best of my knowledge, and that the opinions expressed herein are based on my best professional judgment.

Alan C. Eggleston

Sworn and subscribed before me, the undersigned, a Notary Public in and for the State of Texas, on this 14 day of May, 2004 at Austin, Texas.

SUSAN W DONLEY
NOTARY PUBLIC STATE OF TEXAS
COMMISSION EXPIRES:
NOVEMBER 8, 2006

Notary Public

RESUME

ALAN C. EGGLESTON
EGGLESTON HOLMES AND ASSOCIATES
13625 POND SPRINGS ROAD, SUITE 206
AUSTIN, TEXAS 78729
512-762-5265 512-250-1322
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Summary of Professional Experience

Eggleston Holmes and Associates – Austin, Texas – March 1982 to present. Partner and consulting scientist in environmental assessment of impacts arising from hazardous and radio-active materials projects. Projects include uranium mining, hazardous waste disposal, radio-active waste disposal, fisheries waste disposal, industrial waste disposal, and municipal waste disposal.

Camp Dresser & McKee – Austin, Texas – September 1979 to March 1982. Senior scientist and office manager. Project manager for hazardous materials and radio-active materials projects ranging from uranium mines to rare earth extraction facilities to coastal construction impacts.

University of Western Ontario, Zoology Department August 1972 to June 1978. Assistant Professor. Responsible for teaching and research in neurophysiology, physiology, and cellular physiology in Zoology and Medical Physiology and Medical Biophysics Departments. Editorial staff of Faculty of Science newsletter. Secretary of Regional Science Fair. Chairman of curriculum committee. Departmental safety officer. Departmental radiation safety officer.

University of Texas, Austin, Zoology Department. August 1970 to July 1971. Acting Assistant Professor. Responsible for teaching and research in neurophysiology and cellular physiology. Responsible for administration of National Institute of Health Grant for course development and design of an upper division cellular physiology course and laboratory.

University of Texas, Austin, Zoology Department. August 1969 to July 1970. National Institute of Health Trainee in neurophysiology. Responsible for research in neurophysiology and behavior.

Marine Biological Laboratory, Woods Hole, Mass. June 1969 to August 1969. Assistant for Comparative Physiology. Responsible for maintaining and instruction in the use of electronic monitoring equipment.

University of California, Santa Barbara, Biology Department. August 1966 to May 1969. Lecturer. Responsible for teaching human physiology.

EXHIBIT
B-1

University of California, Santa Barbara, Biology Department. August 1964 to July 1966. Course Assistant in Comparative Physiology, Research Assistant in Genetics.

Western Washington State College. 1962 to 1963. Research Assistant for Lake Whatcom Reservoir Study, Bellingham, Washington.

Western Washington State College. September 1960 to May 1964. Course Assistant in Comparative Zoology, Comparative Physiology, and Genetics.

Other Employment History

Pacific American Fisheries, Excursion Inlet, Alaska. May 1959 to September 1960. Time keeper, radio operator, and first aid officer in salmon cannery.

Pacific American Fisheries, King Cove and Port Moller, Alaska. May 1961 to September 1963. Caviar production manager.

Alaska Department of Fish and Game, King Salmon, Alaska. May 1964 to September 1964. Area office manager, commercial fisheries and liason, USFWS.

Education and Training

Post-doctoral Training. – University of Texas, Austin. 1969-70. Research on interneurons and program behavior in crustacean.

Ph.D. – University of California, Santa Barbara. Emphasis on neuro- and cellular physiology and behavior. Research on arthropod contact chemoreceptors.

B.A. (Honors) - Western Washington State College. 1964. Major in Biology, minors in chemistry, history and language.

Publications and Projects:

Include reviewed and solicited work in Neurophysiology, Chemoreception, Behavior, and and various applied environmental science reports and documents. A partial list of the topics and clients for reports is given in the following pages for the states we normally serve (New Mexico, Wyoming, North Carolina, Florida, Texas). This experience spans some 25 years in Texas and ranges from classical ecology to radiation biophysics to applied fisheries research.

The projects reflect the capabilities of Eggleston Holmes and Associates. These capabilities are supported by off-road vehicles, digital and professional photographic equipment in multi-formats, large format color printers and plotters, full ranging computers and software with word processor, statistical, image management and drafting (AutoCad) software, both inflatable and rigid hull boats, aquatic and marine water and biological sampling equipment including dredges,

groundwater sampling equipment including micro-purge sampling, radiation detection equipment, programmable air samplers, and a GEM-300 multi-frequency induced pulse electromagnetic profiler for subsurface investigation.

Dr. Eggleston also has experience with the implementation of cone penetrometers for subsurface investigations as well as experience with the interpretation of membrane interface probe data developed by this tool.

Mining Projects

Everest Minerals Corporation
- Baseline Environmental Survey
- Environmental Assessment
  - Hobson Mine, Texas
  - Mt. Lucas Mine, Texas
  - Las Palmas Mine, Texas

- Baseline Environmental Survey
  - Gruy Mine, Texas
  - Highlands Mine, Wyoming

- Irrigation Permit Application and Impacts Assessment
  - Highlands Mine, Wyoming
  - Mt. Lucas Mine, Texas
  - Hobson Mine, Texas

- MILDOS mine dosimetry impacts modeling
  - Highlands Mine, Wyoming

Total Minerals (TOMIN)
- Environmental Baseline Survey
  - West Cole Mine, Texas
  - Alta Mesa Mine, Texas
  - Holiday El Mesquite Mine, Texas

- Acquisition Due Diligence Study
  - Irragary Mine, Wyoming
  - Christensen Mine, Wyoming

- NESHAPS Evaluation
  - Holiday El Mesquite Mine, Texas

- Mine Permit Renewals
  - Holiday El Mesquite Mine Texas
  - O'Hern Mine, Texas

Cogema
- Environmental Baseline Survey
  - Alta Mesa Mine, Texas

- ALARA Reviews
  - Holiday El Mesquite Mine, Texas

- Dosimetry Modeling and Source Term Evaluation
  - Holiday El Mesquite Mine, Texas

Uranium Resources, Inc.
- Environmental Baseline Survey
- Impact Assessment
  - Rosita Mine, Texas
  - Kingsville Dome Mine, Texas
  - Vasquez Project, Texas
  - Churchrock Mine, New Mexico
  - Crownpoint Mine, New Mexico
  - Unit 1 Project, New Mexico

- *MILDOS Dosimetry Modeling
  - Churchrock Mine, New Mexico
  - Crownpoint Mine, New Mexico
  - Unit 1 Project, New Mexico

- *Endangered Species Review (Spotted Owl)
  - Churchrock Mine, New Mexico

- *Endangered Species Review (Prairie Dog and Burrowing Owl)
  - Unit 1 Project, New Mexico

- Evaluation of Contaminant Plume (Ra-226, nat. U)
  - Benevides Mine, Texas
  - Longoria Mine, Texas

- *Due Diligence Study – Environmental Red Flags
  - Multi-million acre Sante Fe Gold Property, New Mexico

***Rio Algom**
- Radiation Dosimetry Modeling
  - Smith Ranch Mine, Wyoming
  - Reynolds Ranch Mine, Wyoming

- Irrigation Impact Assessment and Technical Report

Smith Ranch Mine, Wyoming

IEC, Inc.

Groundwater Restoration Assessment
Lamprecht Mine, Texas
Zamzow Mine, Texas

Irrigation Plan
Pawnee Mine, Texas

Mine Closure Plan
Lamprecht Mine, Texas

Commercial Disposal Well Permit Application
Lamprecht and Zamzow Projects, Texas

***Rio Grande Resources**

NESHAPS Evaluation
Panna Maria Mine, Texas
Radiation Dosimetry Modeling
Panna Maria Mine, Texas

Consulting Expert (Adams et al and Cano et al lawsuits)
Panna Maria Mine, Texas

***Chevron**

Soils Sampling and Evaluation
Polangana Mine, Texas

Evaluation of Genetic Impacts Research and Testimony
Panna Maria Mine, Texas

Consulting Expert (Adams et al and Cano et al lawsuits)
Panna Maria Mine, Texas

***Concord Oil Company**

Evaluation of Impacts on Adjacent Property from Uranium Mining
Karnes County, Texas

***Energy Fuels**

Risk Assessment
Irrigation Plan
Reno Creek Project, Wyoming

***Exxon-Mobil**

Consulting Expert (Adams et al and Cano et al lawsuits)

South Texas Uranium Mining and Milling

***Conoco**

Consulting Expert (Adams et al and Cano et al lawsuits)
South Texas Uranium Mining and Milling

***Mestena Uranium**

Environmental Baseline Survey
Impacts Assessment
Safety Evaluation Report
Safety Manual
Operating Procedures Manual
Wetlands Evaluation and Delincation
Alta Mesa Mine, Texas

***USX**

Consulting Expert (Adams et al and Cano et al lawsuits)
South Texas Uranium Mining and Milling

***Kleberg County**

Evaluation of Progress towards Restoration of Kingsville Dome Uranium Mine. Kleberg County, Texas

Fisheries

Southern Seafoods

Evaluation od Discharged Waste and Impacts on Port Waters
Negotiated Order – Florida
Negotiated Order – EPA
Rule Making – Florida
NPDES – EPA
Fishing Effort Evaluation
Shrimp Peeling Equipment Design
Evaluation of Cadmium Loading and Human Health
Scallop Fisheries, Port Canaveral, Florida

Cape Seafoods

Evaluation od Discharged Waste and Impacts on Port Waters
Negotiated Order – Florida
Negotiated Order – EPA
Rule Making – Florida
NPDES – EPA
Scallop Fisheries, Port Canaveral, Florida

Lambert International Seafoods

Evaluation od Discharged Waste and Impacts on Port Waters

Negotiated Order – Florida
Negotiated Order – EPA
Rule Making – Florida
NPDES – EPA
Scallop Fisheries, Port Canaveral, Florida

Bama Shrimp
Evaluation of Computer Systems
Shrimp Processing Facility, Palacios, Texas
Preparation of Process and Inventory Control Software
Shrimp Processing Plant, Palacios, Texas

Heavy Industry

Rockport Yacht and Supply / Calhoun County

404 Permitting
Spoil Peninsula Development, Pt. Comfort, Texas

Tyler Pipe

Evaluation of Wastewater Impacts on Off-site Receiving Water
Evaluation of Water/Wastewater Management within Foundry
Evaluation of Internal Air Quality
Protocol for Radiation Screening within Foundry
Evaluation of Lead Discharges in Receiving Water
Tyler, Texas

***R.S. Kier Consulting**

Statistical Evaluation of Sample Data from Contaminated Soils and Sludges
Dallas, Texas

Martin and Martin
Occupational Safety Review
OSHA Negotiated Settlement
Austin, Texas

***H.B. Zachry**
Delineation Sampling and Safety Evaluation, Hazardous Materials Spill
Austin, Texas

***Union Carbide**
Wetlands Delineation and 404 Permit Application
Seaside, Texas

***TECO**

Due Dilligence Evaluation of Environmental Status
Acquisition of Westinghouse Electric Motor Div., Austin, Texas

***PJR Paving, Inc.**

Review and Evaluation of EPA Noticed Violations for Off-road Vehicles
Review and Critique for MSHA Noticed Violations
Dallas, Texas

Port of Canaveral

Evaluation of Scrap Metal Leachate Impacts on Groundwater
Evalaution of Potential Impacts from TBS Anti-Fouling Paint
Preliminary Evaluation of Impacts Due to Coal Storage
Port Canaveral, Florida

Light Industry

UPS

Evaluation of Groundwater Contamination Impacts from VOCs
San Marcos, Texas

Evaluation of Impacts to Receiving Water from VOCs
San Marcos, Texas

Trammell Crow

Environmental Survey
Arboretum Development, Austin, Texas

TechniCoat

Site Assessment and Remediation of an Industrial Site with Hazardous Waste Contamination
Fort Worth, Texas

AeroMarine

Site Assessment and Remediation of Alledged Hazardous Waste Disposal Without Permit
Texas

Waste Disposal

Port of Canaveral
Evaluation of Impacts from Waste Shell Storage on Groundwater within Port Lands
Port Canaveral, Florida

Lambert International Fisheries
Evaluation of Impacts on Groundwater, Surface Water, and Wetlands of Waste Shell Storage and Disposal
Merit Island, Florida
Evaluation of Shellfish Processing Waste Disposal and Design of Waste Management System.
North Carolina

Cape Seafood, Inc.
Preparation of Grant Application for Disposal Technology Research
SeaGrant Program, Florida

***TDS (Texas Disposal Systems)**
Statistical Evaluation of Monitor Well Data
Remediation Plan for Accidental Hazardous Waste Disposal.
Austin, Texas

***CARE**

Evaluation of Byproduct Disposal Site Environmental Impacts
Texas

***Texas Urethanes**
Preparation of Closure Plan and Sampling for Closure, Un-authorized Waste Disposal Site
Austin, Texas

***Confidential Client**
Evaluation of Risks Associated with Medical Waste Processing Facility
Dale, Texas

Libery Waste
Evaluation of Environmental Impacts and Closure Plan for Landfarm
Evaluation of Off-site Impacts from Landfill
Liberty, Texas

***Technicoat, Inc.**

Implementation of Agreed Order
Negotiation of Agreed Order Modifications
Fort Worth, Texas

***Confidential Client**

Evaluation of Due Dilligence Reports on Environmental Radioactivity in Oil and Gas Pump Rebuilding Sites.
Nationwide

***Confidential Client**
Evaluation of Impacts Due to Landfarming Wastewater Sludge
Texas

***Shore's Ag-Air**
Negotiated Order, Attorney General, Ste of Texas
Managed Cement Stabilization of Arsenic Contamination
Robstown, Texas

***Kleberg County**
Monitoring and Evaluation of Restoration Progress.
Kingsville Dome Mine, Texas

***Navaho Nation**
Evaluation and Impact Assessment of Uranium Mining in the Crownpoint Area
New Mexico

***Vine Street, L.L.C.**
Site Assessment for PERC Contamination in Groundwater.
Tyler, Texas

*Note: star designation denotes projects done in the last five years. Minor projects (those taking less than 24 hours) are not listed.

NEW MEXICO
ENVIRONMENTAL LAW CENTER

May 14, 2004

BY ELECTRONIC MAIL AND U.S. FIRST CLASS MAIL

U.S. Nuclear Regulatory Commission
Office of the Secretary
Attn: Rulemaking and Adjudications Staff
One White Flint North
11555 Rockville Pike
Rockville, MD 20852

Re: In the Matter of: Hydro Resources, Inc.; Docket No: 40-8968-ML

Dear Sir or Madam:

Please find attached for filing Intervenors' Motion To Supplement The Final Environmental Impact Statement For The Crownpoint Uranium Project Church Rock Section 8 in the above-captioned matter. Copies of the enclosed have been served on the parties indicated on the enclosed certificate of service. Additionally, please return a file-stamped copy in the attached self-addressed, postage prepaid envelope.

If you have any questions, please feel free to contact me at (505) 989-9022. Thank you for your attention to this matter.

Sincerely,

Eric D. Jantz
New Mexico Environmental Law Center
Attorneys for Intervenors

Enclosures

1405 Luisa Street, Suite 5, Santa Fe, New Mexico 87505
Phone (505) 989-9022 Fax (505) 989-3769 nmelc@nmelc.org