RAS 9954

UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

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

May 11, 2005 (10:45am)

OFFICE OF SECRETARY RULEMAKINGS AND ADJUDICATIONS STAFF

In the Matter of

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

Intervenors Eastern Navajo Diné Against Uranium Mining's, SouthWest Research and Information Center's, Grace Sam's and Marilyn Morris' Index For Attachments To Written Presentation in Opposition to Hydro Resources, Inc.'s Application for a Materials License With Respect to:

Groundwater Protection, Groundwater Restoration and Surety Estimates

May 4, 2005

Template= SECY-021

SECY-Da=

	INDEX	

.

U.S. NRC Materials License SUA-1508	p 1-brief
Consolidated Operations Plan-5	p 8-brief
HRI Churchrock Project Mine Plan Section 8 & 17 Figure 31-6	p 8-brief
HRI Churchrock Project Mine Plan Section 8 & 17 Figures 1.4-6 & 1.4-7	p 8-brief
-	p 9-brief
John W. Leeper resumé	p 2,3
-	p 10-brief
Hydro Resources, Inc. In-situ Leach Uranium Mine	-
HRI, Inc. Satelite Process Flow Sheet Figure 3.1-2 (COP)	p 10-brief
Consolidated Operations Plan-163	p 11-brief
Groundwater Restoration Action Plan, July 23, 2001	p 11-brief
Groundwater Restoration Action Plan, September 14, 2001	p 11-brief
Groundwater Restoration Action Plan, November 19, 2001	p 11-brief
Safety Evaluation Report, Dec. 1997, (SER) 1.0 Introduction	p 13-brief
Safety Evaluation Report, Dec. 1997, (SER) Page 32	p 13-brief
Declaration of Dr. Richard J. Abitz	p 23-brief
Abitz Resumé	p 1,2,4
	p 13,19
	p 17
· · · •	p 17
Uranium In situ Solution Mines, December 1981	r • • •
Letter to Felix R. Miera from J.F. Cullen, Mobil Alternative Energy Inc. Re:Restoration Progress Report Crownpoint Section 9 Pilot In Situ Leach Plant	p 55
RAP Table 4-Comparison of Total Dissoved Solids in waters from Various Locations and Leach Tests in the Churchrock	p 23-brief
Area, July 23, 2001	•
Ground Water Analysis Report - In Situ Mining-Uranium Figure 2.7-2, 2.7-3, 2.7-4	p 24-brief
Declaration of Dr. John D. Fogarty, January 16, 2005	p 26-brief
John Forgarty MD, MPH, Resumé	p 2
A community-based perspective on the development of a	p 5,9,10,11
uranium groundwater standard for New Mexico, 9/24/03	
	Consolidated Operations Plan-5 HRI Churchrock Project Mine Plan Section 8 & 17 Figure 31-6 HRI Churchrock Project Mine Plan Section 8 & 17 Figures 1.4-6 & 1.4-7 Declaration of Dr. John W. Leeper John W. Leeper resumé Additional Information Request Hydro Resources, Inc. In-situ Leach Uranium Mine Crownpoint, New Mexico (Unit 1) HRI, Inc. Satelite Process Flow Sheet Figure 3.1-2 (COP) Consolidated Operations Plan-163 Groundwater Restoration Action Plan, July 23, 2001 Groundwater Restoration Action Plan, September 14, 2001 Groundwater Restoration Action Plan, November 19, 2001 Safety Evaluation Report, Dec.1997, (SER) 1.0 Introduction Safety Evaluation Report, Dec.1997, (SER) 1.0 Introduction Safety Evaluation Report, Dec.1997, (SER) Page 32 Declaration of Dr. Richard J. Abitz Abitz Resumé Written Testimony of Dr. Richard J. Abitz, January 8, 1999 NUREG-1569, Rev. 1, Draft Report for Comment Staff Technical Position Paper, Groundwater Monitoring at Uranium In situ Solution Mines, December 1981 Letter to Felix R. Miera from J.F. Cullen, Mobil Alternative Energy Inc. Re:Restoration Progress Report Crownpoint Section 9 Pilot In Situ Leach Plant RAP Table 4-Comparison of Total Dissoved Solids in waters from Various Locations and Leach Tests in the Churchrock Area, July 23, 2001 Ground Water Analysis Report - In Situ Mining-Uranium Figure 2.7-2, 2.7-3, 2.7-4 Declaration of Dr. John D. Fogarty, January 16, 2005 John Forgarty MD, MPH, Resumé

ļ	N	D	EX
•		~	

	INDEX	
FOGARTY EXH D	Federal Register, EPA, 40 CFR Parts 9, 141, 142 National Primary Drinking Water Regulations; Radionuclides; Final Rule. Thursday, December 7, 2000	p 12,23
FOGARTY EX E FOGARTY EX F	Affidavit of Christepher A. McKenny, Staff Exhibit 10 Inorganic Components of Drinking Water and Microalbuminuria, Environmental Research 71, 135-140 (1995)	p 13,14,28 p17,18
FOGARTY EX G	Chronic Ingestion of U in Drinking Water: A Study of Kidney Bioeffects in Humans, Toxicological Sciences 43, 68-77 (1998) Article No. TX982426	p 17,18,19,32
FOGARTY EX H	Renal Effects of U in Drinking Water, Environmental Health Perspectives, Vol 110, No.4, (April 2002)	p 17,20,21
FOGARTY EX I	Uranyl Nitrate: 28 Day and 91-day Toxicity Studies in the Sprague-Dawley Rat. Toxicological Sciences 41,117-128 (1998) Article No. TX972367	p 17,21,22,31
FOGARTY EX J	Uranyl Nitrate: 91-day Toxicity Studies in the New Zealand White Rabbit. Toxicological Sciences 41,129-137 (1998) Article No. TX972368	p 17,21,22,31
FOGARTY EX K	Uranyl Nitrate: 91-day Toxicity Studies in the Male New Zealand White Rabbit. Toxicological Sciences 41,138-151 (1998) Article No. TX972369	p 17,21,22
FOGARTY EX L	Uranium. Guidelines for Canadian Drinking Water Quality: Supporting Documentation, Feb. 1987, Rev. Oct. 1999, (edited Jan 2001)	p 25,34
FOGARTY EX M	Guidelines for Drinking Water Quality, second edition, Addendum to Vol 2, WHO/EOS/98.1	p 26,34
FOGARTY EX N	Final Order and Statement of Reasons, WQCC for the State of NM, In the Matter of the Petiton to Amend Ground Water Quality Standards Contained in 20.6.2 NMAC, (Aug., 18, 2004)	p 12,26,28
FOGARTY EX O	Recommendations for Uranium Health-based Ground Water Standard, Final May 2003 prepared for NM Environment Department Ground Water Quality Bureau	p 27
FOGARTY EX P	Integrated Risk Information System, U.S. EPA IRIS Substance file - Uranium, soluble salts; no CASRN	e p 30,31
FOGARTY EX Q	Simulate Loading of Existing Wells, Exh 30, Navajo Nation/OSE Hearing G-11-A, March 1998	p 33
FOGARTY EX R	Executive Summary and Recommendations Radionuclide Levels in Cattle Raised Near Uranium Mines and Mills in Northwest NM, NMEID, (June 1986)	p 34

:

INDEX

2

Í	FOGARTY EX S	Radionuclide Levels in Sheep and Cattle Grazing near Uranium Mining and Milling At Church Rock, NM, NMEID, (Oct 1986)	p 34
	FOGARTY EX T	Health Implications of Radionuclide Levels in Cattle Raised Near U Mining and Milling Facilities in Ambrosia Lake, NM, Health Physics Vol 56,No.3, pp 327-340, (March 1998)	p 34
	FOGARTY EX U	Letter to Honorable Jeff Bingaman, U.S. Senate from Navajo Nation President, Kelsey Begaye, Aug. 15, 2001	p 35
	EXHIBIT R	Declaration of Dr. Donald A. Molony, MD	p 26-brief
	MOLONY EXH A	Donald A. Molony, MD Curriculum Vitae	.p2
	MOLONY EXH B	Transcript of Molony testimony, Water Quality Control	p 4
		Commission Proceedings in the Matter of Proposed	
		Amendments to Amend 20.6.2 NMAC - Water Quality	
		Regulations	
	MOLONY EXH C	Molony WQCC testimony on Uranium Standards	p 4,5,6,7,8
	EXHIBIT S	Section 9 Pilot Summary Report, Table of Baseline	p 32-brief
		Groundwater Concentrations, T17N, R13W, Wells, (March 13, 1978)	-
	EXHIBIT T	Table 2.7-3 HRI's Ground Water Quality Summary, HRI	p 32-brief
		Crownpoint Project	
	EXHIBIT U	·	p 32-brief
		CP-10 (Dakota FH.)	
	EXHIBIT V	Table 2.3-3, HRI Crownpoint Project Water Quality Summary Well CP-1	p 32-brief
	EXHIBIT W	Consolidated Operations Plan-84	p 41-brief
	EXHIBIT X	Declaration of Michael G. Wallace	p 44-brief
	WALLACE EX A	Michael G. Wallace Curriculum Vitae	p 1
	WALLACE EX B	Figure 1-29. HRI's Ground Water Flow and Transport Model	p 9,10,13,14,
			15,16,19,20,
			22,23,28,29,
			30,31,34,37,
			39
	WALLACE EX C	CD ENDAUM Animation of In Situ Leach Mining	p 13,24
	WALLACE EX D	New Mexico Office of the State Engineer Well Reports and Downloads	р 38
	WALLACE EX E	March 3, 1999 Email Re: FYI, with regard to a	p 42,43
		characterization by NRC and others of your opinion on an ISL mine from Shlomo Neuma and Feb. 27, 1998 NRC memo	-
			- EA 1
	EXHIBIT Y	Letters to Mark Pelizza, URI, from Dallas Water Commission	p 54-priet

INDEX

EXHIBIT Z	Texas Dept. of Health inter-office memo Re: Recommended Radiological Restoration Values for URI's Benavides and Longoria Projects	p 54-brief
EXHIBIT AA	RAP Table HRI Crownpoint Uranium Project Financial Assurance Plan for Churchrock Section 17 Summary, July 23, 2001	p 59-brief
EXHIBIT BB	RAP HRI Crownpoint Uranium Project Restoration Action Plan for the Unit 1 Site Cost Summary, Sept., 14, 2001	p 59-brief
EXHIBIT CC	RAP Crownpoint Uranium Project Financial Assurance Plan, Project Cost Summary, Nov. 19, 2001	p 59-brief
EXHIBIT DD KONWINSKI EX A	Declaration of Gary R. Konwinski Gary Konwinski resumé	p 61-brief p1
EXHIBIT EE	RAP Building and Demolition and Disposal Costs, Nov. 19, 2001	p 72-brief
EXHIBIT FF	Analysis of Hydrodynamic Control, HRI Inc. Crownpoint and Churchrock, NM Uranium Mines, Geraghty and Miller	p 73-brief
EXHIBIT GG EXHIBIT HH EXHIBIT II LUCAS EX A LUCAS EX B LUCAS EX C LUCAS EX D	Response to RAI #77, No. 4 page 9, Geraghty & Miller, Inc. Declaration of Spencer G. Lucas Spencer G. Lucas Qualifications Summary Publications on Jurassic Geology (Lucas) Response Affidavit of Dr. Spencer G. Lucas, May 20, 1999 Condon and Peterson (1986, at 21) Figure 1-13	p 73-brief p 73-brief p 75-brief p 2 p 3,23 pp 5,7,8,11, 12,13,14,15, 16,16,17,18, 19,20,21,22, 23, 27
LUCAS EX E	Jurassic Stratigraphy in West-Central NM, NM Geological Society Guidebook, p 289-301, 54th Field Conference Geology of the Zuni Plateau	p 9
LUCAS EX F	Architecture of the Westwater Canyon Member, San Juan Basin, pp 80-93	p 23,24
EXHIBIT JJ EXHIBIT KK	Mining Fluid Containment, Geraghty & Miller, Inc. p 8 Crownpoint Technical Report, 2.3.2 Hydrologic Test, p 45-55	p 77-brief p 85-brief
EXHIBIT LL	Addendum to March 1, 2005 Declaration of Michael G. Wallace	p 88-brief

. .

. .

UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

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

In the Matter of

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

CERTIFICATE OF SERVICE

I hereby certify that copies of "Intervenors Eastern Navajo Diné Against Uranium Mining's, SouthWest Research and Information Center's, Grace Sam's and Marilyn Morris' Index For Attachments To Written Presentation in Opposition to Hydro Resources, Inc.'s Application for a Materials License With Respect to Groundwater Protection, Groundwater Restoration and Surety Estimates." in the above-captioned proceeding have been served on the following by U.S. Mail, first class, and via email to those persons indicated by an asterix, this 4th day of May, 2005:

Administrative Judge, E. Roy Hawkens* Presiding Officer Atomic Safety and Licensing Board U.S. Nuclear Regulatory Commission Washington, D. C. 20555-0001 Email: <u>erh@nrc.gov</u>

Administrative Judge* Richard F. Cole, Special Assistant Atomic Safety and Licensing Board U.S. Nuclear Regulatory Commission Mail Stop T-3 F23 Washington, D. C. 20555 Email: rfc1@nrc.gov

Jep Hill, Esq. Jep Hill and Associates P.O. Box 30254 Austin, TX 78755

Mark S. Pelizza, President* Uranium Resources Inc. 650 S. Edmonds Lane Lewisville, TX 75067 Email: <u>mspelizza@msn.com</u>

Eastern Navajo-Diné Against Uranium Mining P.O. Box 150 Crownpoint, New Mexico 87313

John T. Hull* Tyson R. Smith U.S. Nuclear Regulatory Commission Office of the General Counsel Mail Stop O-15D21 Washington, DC 20555 Fax: 301-415-3725 Email: jth@nrc.gov Email: trs1@nrc.gov

W. Paul Robinson Chris Shuey Southwest Research and Information Center P. O. Box 4524 Albuquerque, NM 87106 Anthony J. Thompson, Esq.* Christopher Pugsley, Esq.* Anthony J. Thompson, P.C. 1225 19th Street, N.W., Suite 200 Washington, D. C. 20036 Fax: (202) 496-0783 E-mail: <u>aithompson@athompsonlaw.com</u> E-mail: cpugsley@athompsonlaw.com

Office of the Secretary* Attn: Rulemakings and Adjudications Staff U.S. Nuclear Regulatory Commission Mail Stop: OWFN-16 C1 Washington, D. C. 20555 E-mail: hearingdocket@nrc.gov

Administrative Judge, Robin Brett * 2314 44th Street, N.W. Washington, D.C. 20007 Fax: (703) 648-4227 E-mail: <u>rbrett@usgs.gov</u>

Louis Denetsosie, Attorney General Navajo Nation Department of Justice P.O. Box 2010 Window Rock, AZ 86515

William Zukosky * DNA-People's Legal Services, Inc. 201 East Birch, Suite 5 Flagstaff, AZ 86001 E-mail: wzukosky@dnalegalservices.org

Laura Berglan * DNA-People's Legal Services, Inc. P.O. Box 765 Tuba City, AZ 86045 E-mail: <u>lberglan@dnalegalservices.org</u>

Office of Commission Appellate Adjudication U.S. Nuclear Regulatory Commission Mail Stop: O-16G15 Washington, D.C. 20555 Adjudicatory File Atomic Safety and Licensing Board U.S. Nuclear Regulatory Commission Mail Stop: T-3F23 Washington, D.C. 20555

Atomic Safety and Licensing Board Panel U.S. Nuclear Regulatory Commission Mail Stop: T-3 F23 Washington, D. C. 20555

David C. Lashway, Esq. * Hunton & Williams, LLP 1900 K Street, NW Washington, D.C. 20006-1109 E-mail: dlashway@hunton.com

Geoffrey H. Fettus * Natural Resources Defense Counsel 1200 New York Ave, N.W. Suite 400 Washington, D.C. 20005 E-mail: gfettus@nrdc.org

Susan C. Stevenson-Popp, Law Clerk* Atomic Safety and Licensing Board Panel U.S. Nuclear Regulatory Commission Mail Stop: T-3 F23 Washington, DC 20555 E-mail: <u>scs2@nrc.gov</u>

Eric D. Jantz Counsel for Intervenors



May 4, 2005

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 enclosed for filing "Intervenors Eastern Navajo Diné Against Uranium Mining's, SouthWest Research and Information Center's, Grace Sam's and Marilyn Morris' Index For Attachments To Written Presentation in Opposition to Hydro Resources, Inc.'s Application for a Materials License With Respect to Groundwater Protection, Groundwater Restoration and Surety Estimates." 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 Douglas Meiklejohn New Mexico Environmental Law Center Attorneys for Intervenors

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