

March 13, 2006 (4:02pm)

OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

In the Matter of:

Hydro Resources, Inc.
P.O. Box 777
Crownpoint, NM 87313

)
)
) Docket No.: 40-8968-ML

)
) Date: March 13, 2006
)

**SUPPLEMENTAL BRIEF REGARDING LBP-06-1 ON RADIOLOGICAL AIR
EMISSIONS AT HYDRO RESOURCES, INC.'S CHURCH ROCK SECTION 17
URANIUM RECOVERY SITE**

INTRODUCTION

Hydro Resources, Inc. (HRI), by its undersigned counsel of record and pursuant to an Order dated February 27, 2006 from the Commission (CLI-06-07), hereby submits this Supplemental Brief Regarding the Presiding Officer's Decision in LBP-06-1 Regarding Radiological Air Emissions at HRI's Church Rock Section 17 (Section 17) uranium recovery site. For the foregoing reasons, HRI asserts that the Presiding Officer's decision in LBP-06-1 should be affirmed.

BACKGROUND AND PROCEDURAL HISTORY

On June 13, July 29, and August 5, 2005 respectively, the Eastern Navajo Dine Against Uranium Mining (ENDAUM) and the Southwest Research and Information Center (SRIC), along with other parties (hereinafter "Intervenors"), HRI, and NRC Staff submitted briefs to the Presiding Officer regarding radiological air emissions at Section 17. In their brief, Intervenors argued that radiological air emissions from the HRI site would exceed acceptable total effective dose equivalent (TEDE) limits for members of the public set forth in 10 CFR Part 20. Further, Intervenors argued that radiation from

mine spoils from previous *mining* activities at Section 17 should be included in the TEDE calculations, as such radiation does not constitute “background radiation” as defined in 10 CFR Part 20.1003. Both HRI and NRC Staff opposed such arguments. In support of this allegation, Intervenor’s cite *dicta* from LBP-99-19¹ in which the previous Presiding Officer stated that radiation from such spoils might not be considered “background radiation.”

In response to these briefs, on November 15, 2005, the Presiding Officer directed all parties to file supplemental briefs answering specific questions. On December 7, 2005, all parties filed supplemental briefs in response to the Presiding Officer’s order.

On January 6, 2006, the Presiding Officer issued LBP-06-1² in which he determined that radiological air emissions from the Section 17 site during licensed ISL uranium recovery operations do not pose a significant threat to public health and safety and the environment. More specifically, the Presiding Officer determined that, despite the *dicta* in LBP-99-19, radiation from Section 17 *mining* spoils should be included in “background radiation,” as it is defined in 10 CFR Part 20. Further, the record establishes that, even if Section 17 *mining* spoils were excluded from “background radiation,” the TEDE to members of the public at Section 17 would not exceed applicable NRC limits for licensed operations.

On January 26, 2006, Intervenor’s filed a Petition for Review under 10 CFR §§ 2.786(b) and 2.1253 requesting that the Commission review and reverse the Presiding Officer’s findings in LBP-06-1. On February 10, 2006, HRI and NRC Staff filed

¹ *In the Matter of Hydro Resources, Inc.* (Crownpoint Uranium Project), LBP-99-19 (1999) (hereinafter “LBP-99-19”).

² *In the Matter of Hydro Resources, Inc.* (Crownpoint Uranium Project), LBP-06-1, (January 6, 2006) (hereinafter “LBP-06-1”).

responses opposing Intervenors' Petition pursuant to 10 CFR § 2.786(b)(3). On February 27, 2006, the Commission granted review of Intervenors' Petition. For the reasons set forth below, HRI respectfully requests that the Commission affirm the Presiding Officer's findings in LBP-06-1 and that HRI's NRC license be affirmed.

STANDARD OF REVIEW

As a general proposition, Licensing Board decisions may be reversed where the brief on appeal points to an error of law that might serve as grounds for reversal of a Board's decision. *Private Fuel Storage, L.L.C.* (Independent Fuel Storage), CLI-00-21, 52 NRC 261, 265 (2000). In general, Licensing Board decisions may be rejected or modified if, after giving that decision the probative force it intrinsically commands, the record compels a different result. *See Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-932, 31 NRC 371, 397-98 (1990); *see also Niagara Mohawk Power Corp.* (Nine Mile Point Nuclear Station, Unit 2), ALAB-264, 1 NRC 347, 357 (1975).

ARGUMENT

The arguments demonstrating that radiological air emissions do not constitute grounds for suspending, amending or invalidating HRI's NRC license are briefed in great detail in HRI's July 29 and December 7, 2006 and NRC Staff's August 5, 2005 and December 7, 2005 submissions to the Presiding Officer. However, in CLI-06-07, the Commission noted three (3) grounds for granting review:

- (1) "the delineation between what is and is not included in a licensed operation's TEDE calculation;"
- (2) the fact that the "Presiding Officer's ruling is without governing precedent;" and

- (3) “the Presiding Officer’s interpretation appears to conflict with a previous Presiding Officer’s interpretation of the same regulation in an earlier phase of this litigation,”

HRI will briefly address each of these grounds in turn with citations to appropriate sections of HRI’s and NRC Staff’s aforementioned submissions. HRI also notes for the record that reversal of the Presiding Officer’s decision below regarding what is and is not included in TEDE calculations as an error of law does not constitute grounds for invalidation of HRI’s license, because HRI sufficiently demonstrated below that the Section 17 TEDE to members of the public, including radiation from the *mining* spoils, does not exceed 10 CFR Part 20 limits.

I. Radiation from *Mining* Spoils at Section 17 Should Not Be Included in HRI’s TEDE Calculations

NRC regulatory language and interpretations demonstrate that radiation from Section 17 *mining* spoils does not belong in HRI’s TEDE calculation.

In its December 7, 2005 response to the Presiding Officer’s request for supplemental information, NRC Staff argued that the definition of “background radiation,” in Section 20.1003 and as used in Section 20.1301, evolved during an iterative process that limited the scope of what should and should not be included in a licensee’s TEDE calculations. More specifically, the Commission began with a limited definition of “background radiation” (originally “natural background exposure”) and, subsequently, revised it to include additional types of material. Naturally occurring radioactive material (NORM) includes a subset of materials known as technologically enhanced NORM or TENORM which is intended to encompass materials that are “truly natural sources of radiation...which would not occur without (or would be increased by) some technological activity *not expressly designed to produce radiation.*” See HRI December

7, 2005 Brief at 10, *citing e.g.*, NUREG/CR-6204 at 3. NUREG/CR-6204 further states that, “[i]f the source of the radon is from radium that *is not licensed or controlled by any agency*, then the dose from radon and its daughters is considered background radiation and may be excluded from...public dose estimates *whether there is any technological enhancement of the concentrations or not.*” *Id.*, *citing* NUREG/CR-6204 at 3 (emphasis added). Given that mining is not specifically intended to produce radiation and that the Section 17 spoils result from *mining* and not uranium *milling* or *processing*, the Presiding Officer correctly classified such spoils as TENORM. Thus, “radon from materials from *mining* activities that are *not regulated by NRC*...generate TENORM and such radon falls within the ambit of “background radiation.” *Id.* at 10.

With respect to the scope of TEDE calculations, in 1991, the Commission modified the 1986 Proposed Rule to limit further the scope of such calculations to radiation “from the licensed operation.” *See* NRC December 7, 2005 Brief at 3-5. Radiation “from the licensed operation” was intended to include “only...doses from radiation and radioactive material under the licensee’s control.”³ *Id.* at 7, *citing* 56 Fed. Reg. 23,374-75 (May 21, 1991). As stated by NRC Staff, this interpretation is consistent with the Commission’s reduction in the limit for exposures to members of the public (i.e., 100 mrem/year) in Section 20.1301(a)(1). *Id.* at 8. Subsequent amendments to Section 1301(a)(1) included a clarification that medical administration of radioactive materials should be governed by Part 35 and that voluntary participation in medical research programs should be excluded from TEDE calculations. *Id.* at 5-6. These amendments,

³ The Commission’s intent to limit the scope of TEDE calculations is further evidenced by the Statement of Consideration for the 1991 Final Rule in which NRC “contrasted this rule with EPA’s broader rule...and made the distinction that the TEDE would not include doses that do not arise from the licensed operation....” NRC Staff December 7, 2005 Brief at 7.

along with the addition of an exclusion for “background radiation,” were enacted to clarify and make consistent the Scope of Part 20 (10 CFR § 20.1002) and TEDE requirements (10 CFR § 20.1301). Thus, there is no contradiction between the generic exclusion of “background radiation” from TEDE calculations and the plain language of Section 1301(a)(1).⁴ Since radiation from the Section 17 *mining* spoils qualifies as part of “background radiation,” the Presiding Officer’s determination that it should not be included in Section 1301 TEDE calculations does not constitute an error of law.

The Presiding Officer’s interpretation of whether or not radiation from Section 17 *mining* spoils falls within the scope of Section 1301(a)(1)’s TEDE requirements is consistent with the Commission’s longstanding policy that it does not regulate *mining*.⁵ As described in HRI’s December 7 Brief, the Commission traditionally has not regulated *mining* and the source material produced from *mining* until it reaches an NRC/Agreement State-licensed uranium mill or other processing facility. Even if the *mined* materials exceed NRC *licensable* source material concentrations, as stated by the Licensing Board, “the Commission’s authority over uranium ore and other ‘source material’ attaches only ‘after removal from its place of deposit in nature,’ and *not when the ore is mined.*” HRI December 7, 2005 Brief at 8, *citing In the Matter of Rochester Gas and Electric*, 8 NRC 551, *6 (November 17, 1978), *citing* 42 U.S.C. § 2092 (2005). Further, as argued by HRI, the Commission’s *Generic Environmental Impact Statement on Uranium Milling* states that NRC “has no direct authority over *uranium mining or mine wastes*,” because they are not “associated with the processing...of such material.” *Id.*, *citing* NUREG-

⁴ Further argument on this issue may be found in NRC Staff’s December 7, 2005 Brief at 3-13.

⁵ Further argument on this issue may be found in HRI’s December 7, 2005 Brief at 7-9 and in HRI’s July 29, 2005 Written Presentation at 19-21.

0706, Vol. 1 at 89. The Presiding Officer correctly notes that “[u]ndisputed record evidence establishes that Section 17 contained no processing or milling facility.” LBP-06-1 at 26. For example, with respect to potential radiation exposure due to radon from the *mining* spoils, as stated by NRC Staff, “Section 20.1301(a)(1) is not concerned with radon emanating from uranium deposits under a uranium mill or reactor. It is concerned with radon emanating from the uranium being processed or utilized in that licensed operation.” NRC Staff December 7, 2005 Brief at 9. Thus, since the *mining* spoils were never *processed*, such spoils were properly classified as TENORM material and exempted from TEDE calculations. Therefore, the Presiding Officer’s finding below regarding this issue should be affirmed.

II. The Presiding Officer’s Findings in LBP-06-1 Are Supported By Persuasive Regulatory Precedent and Interpretation

With respect to the Commission’s second ground for appeal, the Presiding Officer’s findings in LBP-06-1 regarding 10 CFR § 20.1301 *do* have persuasive regulatory precedent and interpretation outside the context of a Commission ruling. The evolution of 10 CFR Part 20’s language regarding “background radiation,” its definition, and its application to *licensed* industry operations supports the Presiding Officer’s findings.

First, 10 CFR Part 40 provides a regulatory classification for the Section 17 *mining* spoils which defines how such spoils should or should not be regulated. 10 CFR § 40.4 includes the term *unrefined and unprocessed ores* which is defined as “ore in its natural form *prior to any processing....*” 10 CFR § 40.4 (2006). As stated above, the Section 17 *mining* spoils were never subject to any form of processing as the Section 17 site never contained a uranium mill or other processing facility. Thus, as argued by NRC

Staff, this material contributes to “background radiation,” because 10 CFR Part 40 expressly exempts it from regulation by the Commission. *See* 10 CFR § 40.13(b).

Second, as argued by HRI in its December 7, 2005 Brief, NUREG-1736 states that radon emanating from radioactive material may be included in TEDE “depending on the circumstances.” HRI December 7, 2005 Brief at 6, *citing* NUREG-1736 at 3-8 (October 2001). Radon emitted from material in the ground into a work basement is not part of TEDE, because it is from a natural, unlicensed source. *See id.* However, radon emitted from *licensed* uranium in the workplace must be factored into TEDE calculations, because the radon does not emanate from an unlicensed, natural source. *Id.* Further, as stated in NUREG/CR-6204, “[r]eleases of radium from a site, *other than from NRC-licensed material (ores or tailings)*, may be required to meet State release limits...for the radium in naturally-occurring radioactive material (NORM)...” *See* HRI’s December 7, 2005 Brief at 6, *citing* NUREG/CR-6204 at 2.⁶ Thus, while the Commission has not ruled on these issues in an informal or formal hearing context, NRC’s existing regulatory scheme and its interpretations of such scheme support the Presiding Officer’s findings in LBP-06-1. Therefore, the Presiding Officer’s findings do have valid regulatory precedent upon which the Commission may rely to affirm LBP-06-1.

III. The Presiding Officer’s Findings in LBP-06-1 Do Not Conflict With The Previous Presiding Officer’s Findings in LBP-99-19

With respect to the Commission’s third ground for appeal, the Presiding Officer’s findings in LBP-06-1 do not conflict with the previous Presiding Officer’s findings in LBP-99-19. As discussed by HRI and NRC Staff in their written presentations, the

⁶ Further argument on this issue may be found in HRI’s December 7, 2005 Brief at 4-9.

previous Presiding Officer's discussion in LBP-99-19 regarding "background radiation" constitutes *dicta* and do not constitute a *finding* that radiation from Section 17 *mining* spoils should be included in HRI's TEDE calculations.⁷

As stated by NRC Staff in its August 5, 2005 written presentation, "Judge Bloch's construction of the term 'background radiation' is *dicta*, because it was not necessary to any of his Section 8 decisions or conclusions." NRC Staff August 5, 2005 Brief at 12. Indeed, Judge Bloch's decision in LBP-99-19 explicitly states, "it has not yet been determined whether radiation released from the underground mine on Section 17 may be excluded from background." LBP-99-19, 49 NRC at 427. Based on this, the Presiding Officer correctly determined that "the precedential value of his [Judge Bloch's] analysis is limited to its power to persuade." LBP-06-1 at 19. Given that Judge Bloch's *discussion* in LBP-99-19 was not *controlling*, the Presiding Officer was well within his authority when he determined that "his analysis—which overlooked regulatory syntax, regulatory evidence, and regulatory structure—was incorrect...." *Id.* Thus, there is no conflict between Judge Bloch's discussion in LBP-99-19 and the Presiding Officer's findings in LBP-06-1 that requires reversal of the Presiding Officer's determination that radiation from Section 17 *mining* spoils is included in "background radiation."

In addition, even if the Commission reverses the Presiding Officer's decision regarding "background radiation" below, HRI has demonstrated sufficiently that the TEDE to members of the public, including radiation from the Section 17 *mining* spoils, will not exceed 10 CFR Part 20 limits. *See generally* HRI July 29, 2005 Written

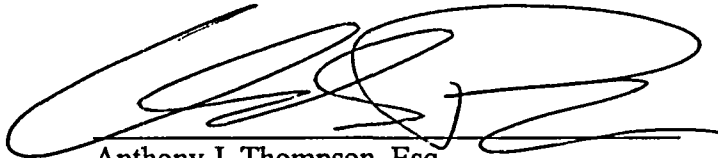
⁷ It is important to note that, as argued by HRI, Intervenors have offered no evidence that Section 17 TEDE calculations would exceed 10 CFR Part 20 dose limits, even if radiation from *mining* spoils were included.

Presentation at 21-29. As argued by HRI, ambient radon exposure to members of the public outside the fence-line will be minimal, because gamma radiation requires both *duration of exposure* and *proximity* to the source to cause a potential, adverse health impact. As a result, even if radiation from the Section 17 *mining* spoils were included in TEDE calculations, members of the public will receive a dose that is a small fraction of 10 CFR Part 20 limits. Therefore, even if the Commission reverses the Presiding Officer's decision below as an error of law, such reversal should constitute harmless error and should not result in invalidation of HRI's license.

CONCLUSION

For the reasons described above, HRI respectfully requests that the Presiding Officer's decision in LBP-06-1 be affirmed.

Respectfully Submitted,



Anthony J. Thompson, Esq.
Christopher S. Pugsley, Esq.
Thompson & Simmons, PLLC
1225 19th Street, NW
Suite 300
Washington, DC 20036
(202) 496-0780
(fax) (202) 496-0783
ajthompson@athompsonlaw.com
cpugsley@athompsonlaw.com

COUNSEL FOR HYDRO RESOURCES, INC.

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 777)
Crownpoint, NM 87313) Date: March 13, 2006

CERTIFICATE OF SERVICE

THIS IS TO CERTIFY that a copy of the foregoing Supplemental Brief Regarding LBP-06-1 On Radiological Air Emissions at Hydro Resources, Inc.'s Church Rock Section 17 Uranium Recovery Site in the above-captioned matter has been served upon the following via electronic mail, expedited service, and U.S. First Class Mail on this 13th day of March, 2006.

Administrative Judge*
E. Roy Hawkens
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
11545 Rockville Pike
Mail Stop T3F23
Rockville, MD 20852
Email: erh@nrc.gov

Administrative Judge *
Richard F. Cole, Special Assistant
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
11545 Rockville Pike
Mail Stop T3F23
Rockville, MD 20852
Email: rfc1@nrc.gov

Jep Hill, Esq.
Jep Hill and Associates
P.O. Box 30254
Austin, TX 78755
Email: jep@jephill.com

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

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

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

Administrative Judge, Robin Brett*
2314 44th Street, NW
Washington, DC 20007
Email: rbrett@usgs.gov

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

William Zukosky
DNA-Peoples' Legal Services, Inc.
201 East Birch Avenue, Suite 5
Flagstaff, AZ 86001-5215
Email:
wzukosky@dnalegalservices.org

Adjudicatory File
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Mail Stop: T 3F23
Washington, DC 20555

David C. Lashway, Esq.
Hunton & Williams, LLC
1900 K Street, NW
Washington, DC 20037
Email: dlashway@hunton.com

Geoffrey H. Fettus
Natural Resources Defense Counsel
1200 New York Avenue, NW
Suite 400
Washington, DC 20005
Email: gfettus@nrcdc.org

John T. Hull, Esq.*
U.S. Nuclear Regulatory Commission
Office of the General Counsel
Mail Stop: O-15D21
Rockville, MD 20852
Email: jth@nrc.gov

W. Paul Robinson
Chris Shuey
Southwest Research and
Information Center
P. O. Box 4524
Albuquerque, NM 87106

Eric Jantz, Esq.*
Douglas Meiklejohn, Esq.
Heather L. Green
Sarah Piltch
New Mexico Environmental Law
Center
1405 Luisa Street, Suite 5
Santa Fe, NM 87505
Email: ejantz@nmelc.org
Email: meikljhn@nmelc.org
Email: Hgreen@nmelc.org

Laura Berglan
DNA-People's Legal Services, Inc.
P.O. Box 765
Tuba City, AZ 86045
Email:
lberglan@dnalegalservices.org

Office of Commission Appellate
Adjudication
U.S. Nuclear Regulatory
Commission
Mail Stop: O-16G15
Washington, DC 20555-0001

Atomic Safety and Licensing Board
Panel
U.S. Nuclear Regulatory
Commission
Mail Stop: T3F23
Washington, DC 20555

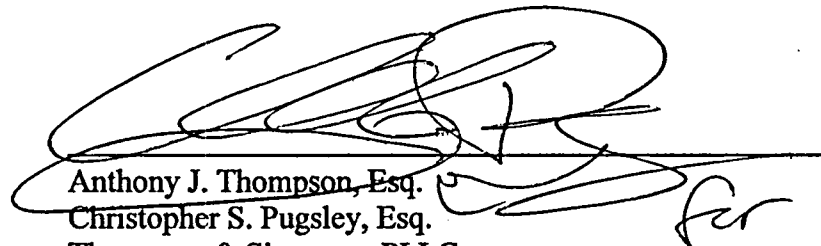
U.S. Nuclear Regulatory Commission
Attn: Chairman Nils J. Diaz,
Mail Stop O-16C1
One White Flint North
11555 Rockville Pike
Rockville, MD 20852-2738
Email: Chairman@nrc.gov

U.S. Nuclear Regulatory Commission
Attn: Jeffrey S. Merrifield, OCM
Mail Stop O-16C1
11555 Rockville Pike
Rockville, MD 20852-2738
Email: cmmerrifield@nrc.gov

U.S. Nuclear Regulatory Commission
Attn: Gregory Jaczko
OCM
Mail Stop O-16C1
One White Flint North
11555 Rockville Pike
Rockville, MD 20852-2738
Email: jkr@nrc.gov

U.S. Nuclear Regulatory Commission
Attn: Edward McGaffigan, Jr.,
OCM
Mail Stop O-16C1
One White Flint North
11555 Rockville Pike
Rockville, MD 20852-2738
Email: cmmcgaffigan@nrc.gov

U.S. Nuclear Regulatory Commission
Attn: Peter Lyons
OCM
Mail Stop O-16C1
One White Flint North
11555 Rockville Pike
Rockville, MD 20852-2738
Email: pbl@nrc.gov



Anthony J. Thompson, Esq.
Christopher S. Pugsley, Esq.
Thompson & Simmons, PLLC.
1225 19th Street, N.W., Suite 300
Washington, DC 20036
Telephone: (202) 496-0780
Facsimile: (202) 496-0783
Email: ajthompson@athompsonlaw.com
Email: cpugsley@athompsonlaw.com

THOMPSON & SIMMONS, PLLC.

1225 19th Street, N.W., Suite 300
Washington, D. C. 20036
202.496.0780/202.496.9111
Fax: 202.496.0783

440 Meadow Street,
Waterbury, Connecticut 06702

ANTHONY J. THOMPSON
ajthompson@athompsonlaw.com
Admitted in D.C. and Virginia

CHARLES T. SIMMONS
csimmons@athompsonlaw.com
Admitted in CT and D.C.

CHRISTOPHER S. PUGSLEY
cpugsley@athompsonlaw.com
Admitted in MD

March 13, 2006

BY ELECTRONIC MAIL, U.S. FIRST CLASS MAIL

U.S. Nuclear Regulatory Commission
Office of the Secretary
Attn: Rulemaking and Adjudications Staff
Mail Stop: OWFN-16C1
Washington, DC 20555

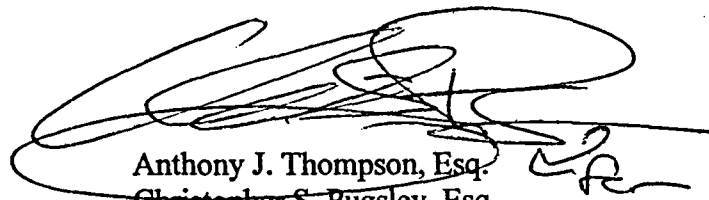
Re: In the Matter of: Hydro Resources, Inc.
Docket No: 40-8968-ML

Dear Sir or Madam:

Please find attached for filing the Supplemental Brief Regarding LBP-06-1 on Radiological Air Emissions at Hydro Resources, Inc.'s Church Rock Section 17 Uranium Recovery Site 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 self-addressed, postage prepaid envelope attached herewith.

If you have any questions, please feel free to contact me at (202) 496-0780.
Thank you for your time and consideration in this matter.

Sincerely,



Anthony J. Thompson, Esq.
Christopher S. Pugsley, Esq.
Thompson & Simmons, PLLC.
Counsel of Record to HRI

Enclosures

(hydro resourcesCOVERLETTTER 031306.doc)