March 13, 2006

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	)	

NRC STAFF'S BRIEF ON APPEAL OF LBP-06-01 CONCERNING RADIOLOGICAL AIR EMISSIONS

INTRODUCTION

On January 26, 2006, Eastern Navajo Diné Against Uranium Mining (ENDAUM), and Southwest Research and Information Center (SRIC) (collectively, "Intervenors"), requested that the Commission review LBP-06-01,[1] in which the Presiding Officer rejected their radiological air emission areas of concern.[2] *See* "Intervenors' Petition For Review of LBP-06-01" (Petition). On February 27, 2006, the Commission accepted review and set a briefing schedule. CLI-06-07.

PROCEDURAL BACKGROUND

In 1988, Hydro Resources Inc. (HRI) submitted a license application, pursuant to 10 C.F.R. Part 40, for authority to conduct *in situ* leach (ISL) uranium mining at its Church Rock site (contiguous portions of Sections 8 and 17) in New Mexico. HRI later amended its application to include additional lease areas known as the Unit 1 and Crownpoint sites (in and around Crownpoint, New Mexico), and to propose that processing of licensed material be conducted at a facility located at its Crownpoint site. In 1997 the NRC Staff published NUREG-1508, the "Final

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[1] *See* LBP-06-01, "Partial Initial Decision (Phase II Radiological Air Emissions Challenges To In Situ Leach Uranium Mining License)," 63 NRC ___(slip op. dated January 6, 2006).

[2] This proceeding commenced prior to February 13, 2004 – the effective date of the substantial revisions to the NRC's Rules of Practice in 10 C.F.R. Part 2.

Environmental Impact Statement to Construct and Operate [HRI's] Crownpoint Uranium Solution Mining Project" (FEIS), and in early January of 1998 the Staff issued a materials license to HRI.

In relevant part, after admitting the Intervenors' air emission concerns (*see* LBP-98-09, 47 NRC 261, 282 (1998)), the Presiding Officer bifurcated this proceeding and required that issues pertaining to HRI's Church Rock Section 8 site be adjudicated first. *See* unpublished orders dated September 22, 1998 and October 13, 1998. The Intervenors filed their Phase I air emission presentation in January 1999, and in May 1999 the Presiding Officer rejected these concerns. *See* LBP-99-19, 49 NRC 421 (1999). The Commission denied the Intervenors' petition to review LBP-99-19. *See* CLI-00-12, 52 NRC 1(2000). On June 13, 2005, the Intervenors submitted their Phase II air emission concerns (radon emissions) for the Church Rock Section 17 ISL mining site;[3] the Presiding Officer rejected these concerns in LBP-06-01.

STATEMENT OF ISSUES

The issue before the Commission is whether radiation from surface spoilage leftover from a previous uranium mine on the Section 17 site (the UNC Mine) should be included in the site's total effective dose equivalent (TEDE) calculation set forth in 10 C.F.R. § 20.1301(a)(1). This TEDE calculation is limited to dose arising from the licensed operation and excludes dose from background radiation, among other sources:

> The [TEDE] to individual members of the public from the licensed operation does not exceed 0.1 rem (1 millisievert) in a year, exclusive of the dose contributions from background radiation, from any medical administration the individual has received, from exposure to individuals administered radioactive material and released under § 35.75, from voluntary participation in medical research programs, and from the licensee's disposal of radioactive material into sanitary sewerage in accordance with § 20.2003 . . .

10 C.F.R. § 20.1301(a)(1).

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[3] *See* "[Intervenors'] Written Presentation in Opposition to [HRI's] Application for a Materials License With Respect to: Radiological Air Emissions for Church Rock Section 17" (June 13 Brief).

The regulatory definition of "background radiation" in 10 C.F.R. § 20.1003 reads:

> *Background radiation* means radiation from cosmic sources; naturally occurring radioactive material [NORM], including radon (except as a decay product of source or special nuclear material); and global fallout as it exists in the environment from the testing of nuclear explosive devices or from past nuclear accidents such as Chernobyl that contribute to background radiation and are not under the control of the licensee. *"Background radiation"* does not include radiation from source, byproduct, or special nuclear materials regulated by the Commission.

In LBP-99-19, the Presiding Officer determined that the phrase "regulated by the Commission" in the second sentence of this definition, referred only to the phrase "special nuclear materials," and not to the preceding terms source or byproduct. 49 NRC at 426. Therefore, under his interpretation, any radiation from any source material would not be considered background radiation. The surface spoilage on the Section 17 site is source material. LBP-06-01, slip op. at 22-23. The Presiding Officer then determined that radiation from this source material cannot be considered background radiation and, accordingly, found that it should be included in the TEDE. He ultimately concluded, however, that, even when including this radiation, the TEDE for Section 8 would not exceed regulatory limits.

In LBP-06-01, the current Presiding Officer, now dealing with the Section 17 site, disagreed with the prior Presiding Officer's interpretation of the definition of background radiation and held that the phrase "regulated by the Commission" applies to all three precedent terms, i.e., source material, byproduct material, and special nuclear material. Because the surface spoilage on the Section 17 site is source material that is not regulated by the Commission, the Presiding Officer found that it is not excluded from "background radiation" by the definition's second sentence. The Presiding Officer then went on to hold that the phrase "naturally occurring radioactive materials" in the definition's first sentence includes technically enhanced naturally occurring radioactive material (TENORM) and that the definition's parenthetical applies only to

radon arising from source or byproduct material that is regulated by the Commission. Therefore, radon arising from surface spoilage on the Section 17 site is included as background radiation.

ARGUMENT

The Intervenors have asserted that the Presiding Officer's decision is contrary to law, and failing that, should be rejected on policy grounds. Notwithstanding the Intervenors' assertions, the Commission should uphold the Presiding Officer's interpretation of the regulation.

A. The Presiding Officer's Discussion of TENORM Is Appropriate

The Intervenors contend that the Presiding Officer improperly incorporated the TENORM concept into the definition of background radiation. *See* Petition, at 5. The Intervenors contend that this interpretation improperly imposes a requirement outside of the notice and comment rulemaking process. *Sprint v. FCC,* 315 F.3d 369 (D.C. Cir. 2003). This argument lacks merit.

This holding is distinguishable from *Sprint*, which involved the Federal Communications Commission's promulgation of a new rule that differed significantly from a previous version without providing the requisite notice and comment period. 315 F.3d at 353. The *Sprint* Court, in relevant part, held that the imposition of a new or changed rule must be preceded by the notice and comment period required by the Administrative Procedure Act. The Presiding Officer's decision in the instant case did not impose a new requirement, but rather merely interpreted a regulatory phrase for which the Commission had not provided a definition. Procedurally, judicial examination employing the standard tools of regulatory interpretation is the proper method for giving meaning to an undefined regulatory phrase. Substantively, the use of these tools in the instant proceeding led to the correct interpretation, which the Commission should uphold.

The NRC's broad definition of "background radiation," as noted by the Presiding Officer, includes naturally occurring radioactive material (NORM). 10 C.F.R. § 20.1003. After noting that the NRC's regulations do not further define NORM, the Presiding Officer found that TENORM is commonly regarded as being a subset of NORM, as shown by the documented evidence of

regulatory and industry practice submitted by the Staff. *See* LBP-06-01, slip op. at 29-31 ("The broad definition of NORM includes radioactive materials that are undisturbed in nature, as well as radioactive materials that, as a result of human activities, are no longer in their natural state"). These TENORM surface spoils, like all NORM, are exempt from NRC regulation because they are "unrefined and unprocessed ore." 10 C.F.R. § 40.13. Further, NRC authority does not extend to mining operations. *In the Matter of Rochester Gas and Electric,* ALAB-507, 8 NRC 551, 554 n.7 (1978), *citing* 42 U.S.C. § 2092. *See also* NRC Staff's Response to Intervenors' Presentation on Radiological Air Emissions, (Aug. 5, 2005) at 15-22. As TENORM is a subset of NORM, "naturally occurring radioactive materials" includes TENORM unless it was explicitly excluded.

The Intervenors' petition does not reference the Presiding Officer's discussion of this regulatory and industry practice, or show that reliance on such evidence constitutes legal error. The Intervenors, relying on *Smith v. United States*, suggest that the Presiding Officer should have ceased his inquiry after determining the ordinary meaning of the phrase. 508 U.S. 223, 228 (1993). Importantly, however, the Intervenors fail to acknowledge that the *Smith* court applied its ordinary-meaning rule to "non-technical words and phrases," or to demonstrate that *Smith* prohibits reliance on regulatory and industry practice in the application of an undefined technical regulatory term as was appropriately done by the Presiding Officer in this case. *See* Petition, at 4. In fact, when a word or phrase is commonly used as a term of art in a particular discipline associated with a legal framework, that word or phrase should be given the meaning understood in that discipline, because, if the words are "addressed to specialists, they must be read by judges with the minds of the specialists." *U.S. v. Cuomo*, 525 F.2d 1285, 1291 n.17 (5th Cir. 1976); *see also Utah v. Evans,* 536 U.S. 452, 467 (2002).

B. The Decision Adhered to Principles of Regulatory Interpretation

The Intervenors then challenge the Presiding Officer's interpretation of 10 C.F.R. § 20.1301(a)(1) and its interaction with the definition of "background radiation" found in

10 C.F.R. § 20.1003. As discussed below, the Presiding Officer interpreted each section in compliance with principles of regulatory interpretation and arrived at a correct interpretation of their requirements. The Intervenors' arguments to the contrary lack merit and should be rejected.

First, the Intervenors fundamentally mischaracterized the Presiding Officer's holding with respect to the phrase "from the licensed operation" in 10 C.F.R. § 20.1301(a)(1). The Intervenors erroneously claim that "LBP-06-01 interprets the phrase 'from the licensed operation' to exclude from the TEDE any radiation whose source is unlicensed by the Commission." Petition, at 7. The Intervenors are correct that he interprets the phrase "from the licensed operation" in 10 C.F.R. § 20.1301(a)(1) to serve as a limitation on what is to be included in the TEDE calculation. However, the Presiding Officer interpreted the phrase "from the licensed operation" to exclude from the TEDE radiation that is "wholly unrelated to HRI's licensed ISL mining operation," such as that emanating from the old UNC mining operation's surface spoilage. LBP-06-01, slip op. at 28. Because the surface spoilage on the site precedes HRI's operation, it cannot be "from the licensed operation." *Id.*

The Intervenors state that "[b]y itself, this deviation from the norms of statutory and regulatory interpretation warrants review." Petition, at 7. The alleged deviation is a reference to the Presiding Officer's invocation of the rule against surplusage, that is, "the canon of construction that favors construing regulations to give import and significance to every term and phrase." *See* Order (Directing Parties to Provide Supplemental Briefing in Phase II Radiological Air Emissions Challenges to In Situ Leach Uranium Mining License) November 15, 2005. Under this theory, the exclusions in 10 C.F.R. § 20.1301(a)(1) for medical administration and sanitary sewage would be unnecessary surplusage if the TEDE calculation were limited to radiation "from the licensed operation." Therefore, according to this line of reasoning, the scope of the TEDE must somehow be greater than "from the licensed operation."

The Staff demonstrated, however, through a discussion of the regulatory history of each of these exclusions, that each exclusion that follows "from the licensed operation" in 10 C.F.R. § 20.1301(a)(1) has its own independent regulatory significance that is not rendered superfluous by interpreting the TEDE as limited to radiation "from the licensed operation." *See* NRC Staff's Supplemental Brief (Dec. 7, 2005) at 6-10. The Presiding Officer agreed with the Staff regarding the meaning of the phrase "from the licensed operation," yet was unwilling to rest his decision entirely on this interpretation because, contrary to the Staff's position, he was unable to square this interpretation with the rule against surplusage. LBP-06-01 at 28, n. 22. He was, however, able to base his decision on a separate, entirely independent basis. Specifically, he was able to base his decision on the distinct determination that radiation emanating from the surface spoilage is background radiation, which is excluded from the TEDE regardless of the interpretation of the phrase "from the licensed operation."

Second, the Intervenors use a regulatory construction argument to challenge the Presiding Officer's holding with respect to the definition of background radiation. 10 C.F.R. § 20.1003; Petition, at 8. In analyzing the second of the two sentences comprising the "background radiation" definition set forth above, the Presiding Officer concluded that (1) the existing mine spoilage on Section 17 is neither byproduct material nor source material regulated by the Commission; and (2) radiation from the mine spoilage is thus not excluded from the definition of background radiation. *See* LBP-06-01, slip op. at 14-27. The Intervenors do not directly challenge this analysis, but asserted that it differs from the resolution reached by Judge Bloch in 1999 with respect to Section 8 air emissions.[4] LBP 99-19, 49 NRC 421, 426.

Several factors point to the conclusion that the current Presiding Officer's interpretation is correct. As he noted, the term "materials" is plural, indicating it is the object of multiple precedent

[4] This interpretation of the definition of background radiation is dicta, as it was not necessary to the previous Presiding Officer's ultimate conclusion. *See* LBP-99-19, 49 NRC at 426.

terms, in this case, source, byproduct, and special nuclear. LBP-06-01 at 16. These terms normally appear in the singular form, (i.e. source material, special nuclear material). 10 C.F.R. § 20.1003. Further, the terms source and byproduct do not have a regulatory meaning independent of the accompanying word "material." Source material and byproduct material are defined (in the singular form) in 10 C.F.R. § 20.1003. "Source" and "byproduct," by themselves, are not.[5] Finally, as the Presiding Officer noted, it would be inconsistent for the definition to include naturally occurring radioactive material as background in the first sentence and then exclude radiation from all source material in the next. LBP-06-01 at 17. The Presiding Officer's interpretation of this second sentence of the definition of background radiation is the only proper interpretation in terms of both regulatory consistency and grammar.

Next, the Presiding Officer turned to the first sentence in the "background radiation" definition, and explained why radiation from the mine spoilage on Section 17 meets the criteria in that definition. *See* LBP-06-01, slip op. at 31-33. Specifically, the Presiding Officer acknowledged the Commission's intent to include ambient radon in "background radiation" and agreed with the Staff's argument that the radon parenthetical in the definition's first sentence – "(except as a decay product of source or special nuclear material)" – must not apply to radon emanating from all source or special nuclear material. Otherwise, no ambient radon would fit the definition of background radiation, contrary to the Commission's stated intent. *Id.* at 32. Thus, the Presiding Officer agreed with the Staff's interpretation of the parenthetical, limiting its application to radon emanating from source or special nuclear materials "regulated by the Commission." The Intervenors dispute this interpretation, yet fail to propose any alternative interpretation of the parenthetical in keeping with the Commission's intent to include ambient radon as background radiation. The Intervenors simply argue that interpreting the parenthetical

[5] For the previous Presiding Officer's interpretation of the second sentence in the definition to be correct, it should read logically if a period were placed after the term "byproduct."

to except only radon that is a decay product of source or special nuclear material that is regulated by the Commission renders the definition's second sentence superfluous. Petition, at 8. This argument is without merit. The sentences are not redundant. They are consistent. Because the second sentence excludes radiation materials regulated by the Commission from "background radiation," there is no need to include the phrase "regulated by the Commission" in the radon parenthetical, in fact, it would have been superfluous to do so.

Based on his analysis harmonizing the entire definition of background radiation (i.e., both its first and second sentences) with the use of this term in the 10 C.F.R. § 20.1301(a)(1) TEDE requirement, the Presiding Officer concluded that any radiation emitted from the Section 17 surface spoilage is excluded from HRI's required TEDE calculations. *See* LBP-06-01, slip op. at 33. The Intervenors state that interpreting an NRC regulation requires reading it as a whole, taking into account its language and structure. *See* Petition, at 6. As set forth above, this is precisely what the Presiding Officer did in analyzing the regulations at issue.

C. Policy Argument Lacks Merit

Finally, the Intervenors argue that, regardless of their plain meaning, as a matter of policy the Commission should interpret its regulations to include radiation from the UNC mine's surface spoilage in the TEDE calculation, even though it does not posses the authority to regulate these materials. *See* Petition at 9. This argument relies on the policy preferences outlined by Judge Bloch in LBP-99-15. 49 NRC at 266-67. However, several competing policy considerations outweigh the Intervenors' concerns. First, in drafting the TEDE regulation the Commission made explicit that, as a matter of policy, background radiation would be excluded from the TEDE. 10 C.F.R. § 20.1301. Second, in drafting the definition of background radiation, the Commission again made explicit that, as a matter of policy, ambient radon would be considered background.

The Intervenors' interpretation of the definition of background radiation would result in a scenario where no radiation from any material falling under the broad regulatory definition of

"source material," regardless of whether it is regulated by the Commission, can be considered background radiation. Under this interpretation, radiation from any naturally occurring uranium, whether it is in the ground or on it, would not be considered background. This interpretation ignores the Commission's stated policy of including ambient radon as background radiation, as well as its explicit intent to include radiation from NORM in background. If the Commission were to adopt the Intervenors' position, what ambient radon would be left to consider background radiation? The Presiding Officer's interpretation, on the other hand, is consistent with the plain language of the regulation, as well as the Commission's stated policy of including ambient radon as background. To the extent they feel this demonstrates a bad policy decision, the Intervenors may, pursuant to 10 C.F.R. § 2.802, petition the Commission to amend its regulations in a rulemaking. The Commission's adjudicatory process, however, is not the proper forum for challenging its regulations. 10 C.F.R. § 2.335(a); see also *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station Unit 2) CLI-03-14, 58 NRC 207, 218 (2003).

CONCLUSION

The Presiding Officer's decision properly reflects that the TEDE requirement in 10 C.F.R. § 20.1301(a)(1) should be limited to dose arising "from the licensed operation," as well as the proper interpretation of both sentences in the definition of background radiation in section 20.1003. Therefore, the surface spoilage on the Section 17 site should not be included in its TEDE calculation and the Commission should uphold LBP-06-01.

Respectfully Submitted,

/RA/

Steven C. Hamrick
Counsel for NRC Staff

Dated at Rockville, Maryland
this 13th day of March, 2006

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF'S BRIEF ON APPEAL OF LBP-06-01 CONCERNING RADIOLOGICAL AIR EMISSIONS" in the above-captioned proceeding have been served on the following persons by deposit in the United States mail; through deposit in the Nuclear Regulatory Commission's internal system as indicated by an asterisk (*); and by electronic mail as indicated by a double asterisk (**), on this 13h day of March, 2006.

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