

**RAS 10731**

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

**DOCKETED 11/15/05**

ATOMIC SAFETY AND LICENSING BOARD

**SERVED 11/15/05**

Before Administrative Judges:

E. Roy Hawkens, Presiding Officer  
Dr. Richard F. Cole, Special Assistant  
Dr. 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

November 15, 2005

**ORDER**

(Directing Parties To Provide Supplemental Briefing In Phase II Radiological Air Emissions Challenges To In Situ Leach Uranium Mining License)

A principal issue in this case is whether the radiation from the UNC mine and its surface spoilage on Section 17 should be included in the calculation of the total effective dose equivalent (TEDE). The Intervenor argues that this issue should be resolved in the affirmative. HRI and the NRC Staff disagree, arguing that the radiological emissions from the UNC mine and its surface spoilage constitute background radiation that is excluded from the TEDE calculation (10 C.F.R. § 1301(a)(1)).

In particular, and as relevant here, the Staff argues that the second sentence of the regulatory definition of background radiation (10 C.F.R. § 20.1003) – which excludes certain categories of radiation from background radiation – mandates the exclusion of radiological emissions from source material that *is regulated by the Commission* (see NRC Staff's Response To Intervenor's Presentation On Radiological Air Emissions at 13-15 (Aug. 5, 2005) [hereinafter NRC Staff's Response]). That sentence does not, argues the Staff, exclude from background radiation radiological emissions from source material that is not regulated by the Commission (ibid.). According to the Staff, because the "material associated with the UNC uranium mine . . . is source material" that is not regulated by the Commission (id. at 22), the last

sentence in the regulatory definition does not mandate excluding the radiation from the UNC mine and its surface spoilage from background radiation.

Assuming (without deciding) the correctness of the above analysis advocated by the Staff, it must be observed that even if the above-described last sentence does not mandate excluding the radiation from the UNC mine and its surface spoilage from background radiation, this does not compel the conclusion that such radiation must be included as a component of background radiation. Rather, whether such radiation is background radiation is determined by an evaluation of the first sentence in the regulatory definition of background radiation, which affirmatively states that background radiation consists of radiation from cosmic sources, naturally occurring radiation, and global fallout (10 C.F.R. § 20.1003). Unfortunately, it appears that no party addressed the significance to this case of the following parenthetical portion of the definition: background radiation includes radiation from “naturally occurring radioactive material, including radon (except as a decay product of source or special nuclear material)” (ibid.). Unlike the second sentence in the regulatory definition of background radiation, the exception in the parenthetical does not expressly limit the universe of “source or special nuclear material” to material that is regulated by the Commission. Accordingly, it might reasonably be argued that this exception applies to *all* source material and, as applied here, seemingly would require excluding from background radiation the radiation from any radon emanating from the UNC mine and its surface spoilage if – as the Staff states (NRC Staff’s Response at 22 & n.19) – that material constitutes source material that is not regulated by the Commission. The strength of such a conclusion may be affected if the last phrase of the first sentence (i.e., “not under the control of the licensee”) applies to cosmic sources and naturally occurring radioactive material, in addition to fallout.

The questions raised in the above paragraph would arguably be rendered moot if the TEDE calculation were limited to radiation resulting “from the licensed operation” 10 C.F.R. § 20.1301(a)(1)); however, such a reading of section 20.1301(a)(1) arguably would not be favored, because it would render much of the subsequent portion of that provision mere surplusage.

Because it appears that the parties have not adequately addressed the meaning, relationship, and applicability of the above regulatory provisions, and because it appears that these provisions may bear on the proper resolution of this case, the parties shall submit a supplemental written presentation that includes:

1. A discussion of the meaning of the parenthetical in the first sentence of the regulatory definition of background radiation (10 C.F.R. § 20.1003), and its applicability to this case. The parties’ discussion shall include an explanation of the purpose of the exception, why the parenthetical exception does not include byproduct material, why the exception does not include the limiting phrase “regulated by the Commission,” whether the UNC mine and its surface spoilage are source material within the meaning of the parenthetical, and whether (in light of the parenthetical) the radiation from the UNC mine and its surface spoilage should be excluded from the TEDE.
2. A discussion of whether the phrase “not under the control of the licensee” in the first sentence of the regulatory definition of background radiation (10 C.F.R. § 20.1003) was intended to apply to cosmic sources and naturally occurring radioactive material, or whether it was intended to apply only to fallout. Further, the parties shall explain how (if at all) the phrase should be applied here.
3. A discussion of whether the TEDE calculation was intended to include only radiation resulting “from the licensed operation” (10 C.F.R. § 20.1301(a)(1)), and, if yes, how

such a regulatory interpretation can be reconciled with the canon of construction that favors construing regulations to give import and significance to every term and phrase. In fleshing out the meaning, relationship, and applicability of the above provisions, the parties shall employ all relevant tools of interpretation (e.g., statutory sources; regulatory language, structure, and history; logic; canons of construction; administrative practice; relevant case law).

Unless otherwise authorized by subsequent order, the parties shall submit their supplemental written presentations – which shall not exceed 20 pages in length – on or before December 7, 2005.

It is so ORDERED.

BY THE PRESIDING OFFICER<sup>1</sup>

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E. Roy Hawkens  
ADMINISTRATIVE JUDGE

Rockville, MD  
November 15, 2005

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<sup>1</sup> Copies of this Order were sent this date by Internet email transmission to counsel for: (1) the applicant, HRI; (2) the Intervenors, Eastern Navajo Diné Against Uranium Mining, the Southwest Research and Information Center, Grace Sam, and Marilyn Morris; and (3) the NRC Staff.

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NUCLEAR REGULATORY COMMISSION

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CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing LB ORDER (DIRECTING PARTIES TO PROVIDE SUPPLEMENTAL BRIEFING IN PHASE II RADIOLOGICAL AIR EMISSIONS CHALLENGES TO IN SITU LEACH URANIUM MINING LICENSE) have been served upon the following persons by U.S. mail, first class, or through NRC internal distribution.

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Docket No. 40-8968-ML  
LB ORDER (DIRECTING PARTIES TO PROVIDE  
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[Original signed by Evangeline S. Ngbea]

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Office of the Secretary of the Commission

Dated at Rockville, Maryland,  
this 15<sup>th</sup> day of November 2005