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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF SECRETARY
RULEMAKING AND
ADJUDICATIONS STAFF

BEFORE THE PRESIDING OFFICER

In the Matter of)	
)	Docket No. 40-8968-ML
HYDRO RESOURCES, INC.)	
2929 Coors Road, Suite 101)	(Leach Mining and Milling License)
Albuquerque, New Mexico 87120)	

NRC STAFF'S RESPONSE TO INTERVENOR'S
PRESENTATION ON CUMULATIVE IMPACT AND SEGMENTATION ISSUES

INTRODUCTION

By submittal dated February 19, 1999, Intervenors Eastern Navajo Diné Against Uranium Mining (ENDAUM) and Southwest Research and Information Center (SRIC), jointly filed a written presentation on cumulative impact and segmentation issues.¹ ENDAUM and SRIC (hereinafter referred to collectively as the Intervenors) filed their written presentation pursuant to 10 C.F.R. § 2.1233, the Presiding Officer's Memorandum and Order (Scheduling and Partial Grant of Motion for Bifurcation), dated September 22, 1998 (unpublished) (Scheduling and Bifurcation Order), as amended, and the subsequent Joint Notice of Modification of Schedule for Written Presentations dated November 5, 1998, as amended. SRIC's Cumulative Impacts Brief is among the last of a series of scheduled written presentations being filed on issues involving the proposed *in situ* leach (ISL) uranium mining by licensee Hydro Resources, Inc. (HRI).

¹ This filing will be referred to as SRIC's Cumulative Impacts Brief. Attached thereto is supporting testimony of Dr. Richard Abitz (Exhibit 1, hereinafter "Abitz Testimony"); Dr. William Staub (Exhibit 2, hereinafter "Staub Testimony"); and Mr. Michael Wallace (Exhibit 3, hereinafter "Wallace Testimony").

Pursuant to the Scheduling and Bifurcation Order (as later modified by the Presiding Officer), HRI filed its response to SRIC's Cumulative Impacts Brief on March 25, 1999.² The Staff hereby submits its response to SRIC's Cumulative Impacts Brief.

As discussed below, the Intervenor's arguments on cumulative impact and segmentation issues lack legal merit, and the requests for relief (*see* SRIC's Cumulative Impacts Brief, at 46-47) should accordingly be denied.

BACKGROUND

In NUREG-1508, the Staff's February 1997 "Final Environmental Impact Statement to Construct and Operate the Crownpoint Uranium Solution Mining Project, Crownpoint, New Mexico" (FEIS), the Staff provided a full evaluation of HRI's proposed ISL mining operations, and included therein a thorough discussion of cumulative impact issues. *See* FEIS § 4.13 (at pages 4-120 to 4-127). In May, 1998, following issuance of HRI's license, the Presiding Officer ruled that concerns regarding existing radiological contamination in and around HRI's Church Rock site are not germane to this proceeding. *See* LBP-98-9, 47 NRC 261, 283 (1998). The Scheduling and Bifurcation Order further narrowed the scope of issues now relevant to those regarding proposed

² HRI's response to the Intervenor's cumulative impact arguments is included within its March 25, 1999, filing titled "[HRI's] Response to ENDAUM and SRIC's Brief With Respect To NEPA Issues Concerning Project Purpose And Need, Cost/Benefit Analysis, Action Alternatives, No Action Alternative, Necessity To Supplement EIS, Mitigation, And Cumulative Impacts" (HRI's Cumulative Response), at 30-35.

operations at HRI's Church Rock Section 8 site, and the consequences of ISL mining on Section 8.

See Scheduling and Bifurcation Order, at 3.³

Contrary to this limited scope, much of SRIC's Cumulative Impacts Brief, its supporting testimony, and other testimony referenced therein, discuss non-germane concerns regarding existing radiological contamination in and around HRI's Church Rock site.⁴ Other portions of SRIC's Cumulative Impacts Brief argue issues which have already been ruled upon by the Presiding Officer.⁵ Still other sections of SRIC's Cumulative Impacts Brief rely on testimony proffered by the Intervenors as part of their environmental justice presentation.⁶ The Staff's discussion below focuses on the germane concerns regarding cumulative impact and segmentation issues relevant to HRI's Church Rock site. Much of this discussion concerns topics previously addressed in the FEIS.

³ In CLI-99-1, 49 NRC 1, 3-4 (1999), the Commission reinforced this limited scope by directing the Presiding Officer to "complete his series of merits decisions on all matters related to the Church Rock Section 8 property" by June 15, 1999.

⁴ *See, e.g.*, SRIC's Cumulative Impacts Brief; at 16-18, 21-23, 25-26, and 41 (regarding effects of past mining activity in the Church Rock area); and *id.*, at 43 (regarding source of existing radiation).

⁵ *See* SRIC's Cumulative Impacts Brief, at 2 and n.1, and 33-34 (regarding liquid waste issues decided in LBP-99-1); and *id.*, at 30-33 (regarding cultural resource issues decided in LBP-99-9).

⁶ *See* SRIC's Cumulative Impacts Brief, at 17, 21-23, 25, 26, 36-39, and 41-42, variously referencing the proffered environmental justice testimony of Dr. Christine Benally and Dr. Robert Bullard. The Staff discusses these proffered testimonies in the "NRC Staff's Response To Intervenors' Presentations On Environmental Justice Issues," dated April 1, 1999, and is not further addressing those testimonies herein. Likewise, the Staff is not addressing herein the Intervenors' repetitive environmental justice argument. *See* SRIC's Cumulative Impacts Brief, at 40.

DISCUSSION

A. Intervenors' Cumulative Impact Contentions Lack Legal Merit

To the extent that the Intervenors raise cumulative impact issues which are germane, these issues do not entitle the Intervenors to the legal relief they seek, for the reasons discussed below.

1. FEIS adequately addressed cumulative impacts

Pages 4-120 to 4-127 of the FEIS contain a thorough discussion of cumulative impact issues. The charge that the FEIS "ignores the extensive history of mining in the Church Rock area" (SRIC's Cumulative Impacts Brief, at 18), is nonsense, as shown by even a cursory review of the FEIS. See FEIS §§ 4.12.4, 4.13.2, 4.13.3, and 4.13.6.

SRIC's Cumulative Impacts Brief contains other inaccuracies, such as its statement that "United Nuclear Corporation's mine and milling facilities at Church Rock has been declared a federal Superfund site because of the extensive ground water contamination there." *Id.*, at 26 (emphasis added).⁷ This statement is incorrect, because while the mill has been declared a Superfund site, the site of the old Church Rock uranium mine has not been so designated. The Church Rock mill and mill tailings site is located on Section 2, about two miles northeast of the old Church Rock uranium mine.⁸ Groundwater contamination concerns associated with the mill and mill tailings site

⁷ The proffered testimony of Dr. Bullard, at 24, is incorrectly cited to support this statement. The source of this incorrect information is thus not known.

⁸ The location of United Nuclear Corporation's Church Rock milling facility is depicted on Figure B3-8, which is part of Exhibit 4 attached to the Intervenors' January 1999 groundwater presentation. The Section numbers on Figure B3-8 are difficult to see, but HRI's site is located thereon where the numbers "10, 11" appear side-by-side. *Cf.* FEIS Figure 2.8.

are focused on shallow alluvial aquifers there, and do not involve the Westwater Canyon aquifer. Thus, even if this mill tailings contamination was HRI's responsibility, it would not be relevant to any ground water issues at HRI's Section 8.

The Intervenors further erroneously state that the FEIS "does not analyze the cumulative effects of the proposed Project taken with these or other impacts of past mining on ground water." SRIC's Cumulative Impacts Brief, at 26. On the contrary, Page 4-122 of the FEIS contains quantitative estimates of consumptive water use for the whole project, and the FEIS further states in this regard as follows:

Past actions that have contributed to cumulative impacts on groundwater in the region include underground uranium mining at the Church Rock site, which would have dewatered the Westwater Canyon aquifer and the Brushy Basin "B" Sand aquifer in the area of the existing workings and may have had some dewatering effects on the Dakota Sandstone aquifer. Dewatering effects would have lowered water levels in these aquifers for some distance around the workings and may have oxidized some of the rock around the workings by exposing it to the atmosphere. When mining stopped, the workings flooded, and after several years groundwater levels returned to pre-mining levels. Water quality in the workings was probably degraded, but groundwater quality outside the mine workings does not appear to have been affected.

FEIS, at 4-123. Moreover, on the same page, the FEIS concludes as follows:

ISL mining at the Church Rock, Unit 1, and Crownpoint sites would geochemically change the chemistry of the groundwater in the Westwater Canyon aquifer, but not so much as to degrade its use. Some temporary impacts on groundwater level would occur, but at the Church Rock site these impacts would be less than the effect of past underground mining activities on water levels.

Id. Accordingly, the Intervenors' contention that the FEIS lacks a ground water cumulative impact analysis does not have merit.

The Intervenor reference the new Staub Testimony and Wallace Testimony to support the repetitive claim that past mining on HRI's Section 17 site will make it difficult to restore the groundwater in Section 8. See SRIC's Cumulative Impacts Brief, at 29. This claim has already been addressed, and has no merit. See March 1999 affidavit of Mr. William Ford, attached to the Staff's March 12 groundwater presentation as Staff Exhibit 1, at ¶¶ 18-21.

The Intervenor state that the FEIS "indicates that its conclusions about the cumulative impacts on ground water depend upon several assumptions," including one that no horizontal or vertical excursions would occur during ISL operations. SRIC's Cumulative Impacts Brief, at 26, citing the FEIS, at 4-122. This FEIS statement is lifted out of its proper context. The referenced excursion assumption was used in the FEIS to produce an estimate of the cumulative volume of water that might be consumed by three groundwater restoration alternatives for all three of HRI's project sites taken together. A similar estimate was provided for the Church Rock site alone. See FEIS, at 4-58. Making this assumption was part of establishing practical limits for the water volume estimate. It is unknown how many excursions might in fact occur during ISL operations. The FEIS did not state that excursions will not occur. See FEIS, at 4-54 and 4-55.

The Intervenor's further claims that (1) the FEIS description of the Westwater Canyon is deficient; and (2) the FEIS concludes that there are no geologic faults in the area, and that excursions will accordingly not occur through faults, are also erroneous. See SRIC's Cumulative Impacts Brief, at 27. The Staff has previously demonstrated that the FEIS description of the Westwater Canyon Aquifer is accurate. See Mr. Ford's February 1998 affidavit, at ¶¶ 7-11, and his March 1999 affidavit, at ¶¶ 13-15. The charge that geologic faults were assumed not to exist is

incorrect. The Staff in the FEIS assumed the presence of undetected faults at HRI's Church Rock site. *See* FEIS, at 4-55. In fact, this conservative assumption formed the basis for requiring HRI to conduct pump tests prior to any ISL mining. *See* HRI License Condition 10.23.

The Intervenors argue that the FEIS misrepresents area radiation levels, and that it misleadingly indicates that such levels are produced mainly by background sources of radiation. *See* SRIC's Cumulative Impacts Brief, at 20, *citing* FEIS, at 4-72 and 4-124. At FEIS page 4-72, the Staff stated that the "primary radiological impact to the environment in the vicinity of the project results from naturally occurring cosmic and terrestrial radiation and naturally occurring radon-222 and its daughters," and acknowledged that in addition to natural background, there is "remnant radiation stemming from previous mining and milling activities near the Church Rock site." FEIS, at 4-73. In its cumulative impacts analysis, the Staff reiterated the minimal contribution ISL mining would make to the local population dose, in stating its finding that such activity would produce "less than 1 percent of the dose from natural background sources." *Id.*, at 4-124. The Intervenors do not explain how this finding is misleading, or otherwise indicates a failure to properly evaluate cumulative impacts.

Accordingly, as discussed above, the Intervenors' cumulative impact arguments lack merit, and the Intervenors' requests for legal relief based thereon should be denied.

2. Crownpoint issues are outside scope of this proceeding

As referenced above, the Scheduling and Bifurcation Order narrowed the scope of issues now relevant to those regarding proposed operations at HRI's Church Rock Section 8 site, and the

consequences of ISL mining on Section 8. *See* Scheduling and Bifurcation Order, at 3. The Intervenor's improperly seek a way around this restriction by relying on some prior testimony of Mr. Wallace's, stating as follows:

Michael Wallace has testified that "dozens of abandoned uranium mines in the Church Rock, Mariano Lake and Smith Lake areas are likely sources of localized contamination in the Westwater Canyon Member.

SRIC's Cumulative Impacts Brief, at 25-26.⁹ The Intervenor's do not include Mr. Wallace's full statement, which was made with respect to the proposed relocation of the town of Crownpoint water supply wells, where he goes on to say that most of these abandoned mines

are located hydrologically upgradient of Crownpoint, at distances ranging from five to 25 miles. There is little published data on the effects of these mines on regional geochemistry.^[10] Accordingly, it is reasonable to assume that finding a site for a new water supply well or wells that would not be endangered by previous or future mining activities (past or future) would prove difficult.

Wallace January 13, 1998, affidavit, at ¶ 44, page 29. Since this testimony clearly concerns Crownpoint, it should not be considered in this phase of the proceeding.

B. Intervenor's Segmentation Contention Lacks Legal Merit

The Intervenor's contend that the FEIS improperly segments consideration of impacts to be caused by HRI's proposed ISL mining project. *See* SRIC's Cumulative Impacts Brief, at 43-46. This argument makes various vague statements regarding the FEIS, but provides no citations to any

⁹ No citation is provided for this testimony, which is found in ¶ 44, page 29, of Mr. Wallace's January 13, 1998, affidavit, submitted by the Intervenor's as a supporting exhibit to "ENDAUM'S and SRIC'S Motion for Stay, Request for Prior Hearing, and Request for Temporary Stay".

¹⁰ If that is the case, then it would be very difficult to do a regional study of cumulative impacts on water chemistry in the FEIS.

specific pages or sections of the FEIS to support the segmentation claim. This vagueness alone merits rejection of the Intervenor's segmentation argument.

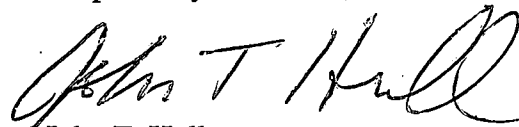
Moreover, the segmentation contention has no legal basis. The rule against segmentation prohibits an agency from dividing a project into segments for purposes of avoiding the requirement to prepare an environmental impact statement (EIS). See *Taxpayers Watchdog, Inc. v. Stanley*, 819 F.2d 294, 298-99 (D.C. Cir. 1987). Once an adequate EIS covering an entire project is issued, as is the case here, the project may be completed in stages. See *Cronin v. U.S. Dept. of Agriculture*, 919 F.2d 439, 447-48 (7th Cir. 1990), citing *Marsh v. Oregon Natural Resources Council*, 490 U.S. 360 (1990). Accordingly, the segmentation rule is not applicable here, since the Staff has already prepared and issued the FEIS, which evaluated the combined impacts of ISL mining at HRI's Church Rock, Unit 1, and Crownpoint sites.

Accordingly, the Presiding Officer should reject the Intervenor's segmentation contention.

CONCLUSION

For the reasons discussed above, the Presiding Officer should deny the Intervenor's requests for relief (see SRIC's Cumulative Impacts Brief, at 46-47), because their arguments on cumulative impact and segmentation issues lack legal merit.

Respectfully submitted,



John T. Hull
Counsel for NRC Staff

Dated at Rockville, Maryland
this 1st day of April, 1999

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CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF'S RESPONSE TO INTERVENORS'S PRESENTATION ON CUMULATIVE IMPACT AND SEGMENTATION ISSUES" in the above-captioned proceeding have been served on the following by U.S. Mail, first class, or, as indicated by a single asterisk through deposit in the Nuclear Regulatory Commission's internal mail system, or, as indicated by double asterisks, via e-mail and express mail, this 1st day of April 1999:

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